

Scientific Study of Balance (*al-Mīzān*) in the Light of Sūrah Al-Rahmān

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ABSTRACT

This article is an attempt to elaborate the phenomenon of equilibrium prevailing everywhere in the microcosmic and macrocosmic systems associated with universal stability and rhythm. It has been accentuated what is beautifully illuminated in the beginning verses of Sūrah Al-Rahmān successively regarding balance that invites one's thought towards the well controlled cosmic system as well as with the concept of balance by means of different manners as identified by exegetes and scholars concerning daily life i.e. from simple and common to that of complex issues and intricacies. Qualitative method has been employed for this research while some aspects have also been handled in accordance with quantitative approach. Article also emphasized the series of cause and effect nexus may be declared as self explanatory episode an indication towards a Supreme Force whose widespread control and interference can't be denied rationally. Sūrah beautifully pictured the physical and metaphysical sketch of balance having many dimensions from man to universe and vice versa as well as from both towards Ultimate Reality whose dominion is limitless where one has to follow peaceful living and to put oneself aside indulging any disruption from ordinary clash to that of nuclear war to be waged.

Keywords: *Sūrah Al-Rahmān, Balance (al-Mīzān), Science, Cause and Effect*

Nexus, Tranquility, Ultimate Reality

Introduction

The need of balance either in daily life like human's personal matters and socioeconomic affairs or in biological rhythms in human being e.g. breathing and sleeping or the question of balance

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regarding atomic entities to that of cosmological gigantic bodies may be called as essential part of universal flow and purposeful epoch-making. It is also crucial that the phenomenon of equilibrium in the macrocosmic and microcosmic systems is a vital source and provenance for universal stability and its dynamic tempo.

It has also been elucidated, regarding the balance beautifully mentioned in the verses of Sūrah Al-Rahmān, by exegetes and scholars with diversity of views e.g. some declared it as justice and some other called it balance and stability. The minds of Muslim scientists focused upon the phenomenon of balance and gave the practical solution to humanity making devices for measurements and their working regarding the gravity of elements has been using up till now with approximately similar data in recent development of science and technology.

Celestial bodies are exposing the balance, new scientific advancement also confirming the expansion of the universe and cosmic bodies moving away from each other without disrupting the universal balance at macroscopic level. Similarly according to physics, in the atomic world the subatomic particles and their division into further tiny entities like quarks and their behaviour also have the lesson of balance along with dynamic sight. Causes and effects and their mutual links, moreover, express sometime very sensitive balance or demanding a Supreme Force for the existence of that phenomenon as discussed by al-Ghazālī in his treatise '*Incoherence of the philosophers*' centuries earlier.

Contrary to the concept of balance the situation of turbulence and disorder again projects the importance and need of balance to keep it up and to uphold the peaceful human living irrespective of race, colour and religion instead of horrendous onslaught on *Heroshima* and *Naghasaki* on August 1945 killing 120,000 people immediately and leaving lethal consequences and poisonous aftermaths.

Etymology of the Word 'al-Mizān'

Some exegetes during the elaboration of the concept of balance also gave word *wazn* its background and derivatives along with suitable definition as stated by Rāghib Isfahānī:

الْوَزْنُ مَعْرِفَةُ قَدْرِ الشَّيْءِ ، يُقَالُ وَزَنْتُهُ وَزَنًّا وَزَنَةً ، وَالتَّعَارُفُ فِي الْوِزْنِ عِنْدَ الْعَامَّةِ مَا يُقَدَّرُ بِالْقِسْطِ

وَالْقَبَّانُ-¹

So, it is to know the size, volume or amount of thing and it is

commonly known as what is quantitatively measured by (the instrument) steelyard (or otherwise). Here the word “*al-qabbān*” may also be stated as the link of balance with technological and scientific devices.

Mustafā Zubaidī stated the derivatives of the word ‘*wazn*’ in *Tāj al ‘Arūs* and added Laith’s statement regarding balance as:

وزن: الوَزنُ، كالوَعْدِ وقيل: الوَزنُ: هو الثَّقَلُ والحِفَّةُ. وقال اللَّيْثُ: الوَزنُ ثَقْلُ شَيْءٍ بِشَيْءٍ مِثْلِهِ، كأوزانِ الدَّرَاهِمِ، ومِثْلُهُ الرِّزْنُ؛ (وزنُهُ يَزِنُهُ وَزناً وَزِنَةً)، كَوَعْدٍ يَعِدُ وَعِداً وَعِدَّةً.²

The dictionaries and Islamic sources disclose various meanings of Arabic word *wazn* (وزن) and its dimensions either etymologically or metaphorically as stated by al-Zamakhsharī, Ibn Manzūr and Mustafā Zubaidī etc.

The concept discussed by *al-Zamakhsharī* may be stated as stability, sense of balance, share of entities to create balance, beautiful expression subject to balance talk, physical balance like the balance of mountain, equalized condition of balance.³

Ibn Manzūr also explained word ‘*wazn*’ with different derivatives which express, economical balance, measuring balance, balance and justice, balance of the day, in short he gave the comprehensive concept of the balance including physical and metaphysical entities.⁴

These definitions broaden the concept of balance and express its various dimensions that will be more obvious in the discourse of exegetical views and further discussions of current article.

Some Exegetical Views regarding Balance

There are some exegetical trends that declared ‘*al-Mīzān*’ as justice and some other scholars called it as balance and stability. Al-Zaimakhsharī gave the importance of balance mentioning the verses of Sarah Al-Rahmān as symmetry and equalization (التسوية والتعديل) and its absence as despotism and tyranny (الطغيان).⁵

Fakhr al-Dīn Muhammad bin ‘Umar al-Rāzī stated that to set up a balance is an indication towards justice God started the Sūrah Al-Rahmān with the statement of knowledge then stated Qur’ān in which various understanding has been mentioned then He (Allah Almighty) stated justice and its important affairs known as ‘*al-Mīzān*’ i.e. equilibrium and balance. Al-Rāzī elaborated the importance of balance as a bounty and favour comparing with the knowledge rationally.⁶ He further added, so that the people should act upon the book and to perform in accordance with ‘*al-Mīzān*’ i.e. balance then

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he quoted adding the following verse (57:25) along with the correlation of related verses of Sūrah Al-Rahmān as:

وَأَنْزَلْنَا مَعَهُمُ الْكِتَابَ وَالْمِيزَانَ

Abdullah Yūsuf ‘Ali translated it as:

“And (we) sent down with them the Book and the Balance (of Right and Wrong)”⁷

Wahbah al-Zuḥaylī also explained the verse with the concept of balance of heavenly bodies, earth related balance and its establishment by Lord and His bestowal of balance instrument and device that has been given to humanity for its proper use.⁸

Mustāfa Marāghī also elaborated the balance of upper realm and he finally extended its concept towards the whole human’s affairs.⁹

Syed Quṭb discussed the phenomenon mentioning heavenly bodies also¹⁰ while Muhammad Amīn Shanqīṭī defined as:

هُوَ الْمِيزَانُ الْمَعْرُوفُ ، أَعْنِي آلَةَ الْوَزْنِ الَّتِي يُوزَنُ بِهَا بَعْضُ الْمَبِيعَاتِ-¹¹

That is far-famed and well-known, it is a device or instrument to weigh some sale entities.

Abdul Qādīr Malākhwīsh extended the concept of balance and its set up in this world as well as in the world of the Hereafter and he negated the view of merely weighing and measurement of lettuce and onion etc.

إن هذا الميزان الذي قابله الله بالسما لا يتصور أنه الذي يزن به الناس الخس والبصل مثلا ، بل إنما

هو العدل الذي به قوام الدنيا والآخرة.¹²

According to Ali Unal Qur’ān elaborates balance in three successive verses of Sūrah Al-Rahmān and he put:

“Its (balance) manifestation is justice. With respect to human education and perfection, this balance requires that everything is given its due importance in the life and that the basic faculties and impulses of anger, desire or appetite, discipline.....moderation, chastity and wisdom.”¹³

Various other verses of Qur’ān mentioning balance also support the concept of comprehensive view that encompassed physical and metaphysical i.e. this world and the Hereafter as well as micro-macro domains of balance.

Universal Balance (al-Mizān): A Scientific Approach

The phenomenon of equilibrium in the cosmic system has been elucidated beautifully in the verses of Sūrah Al-Rahmān. Three times the word *al-Mizān* is repeated in addition to the Arabic word ‘*wazn*’

in the beginning of the Sūrah as:

﴿وَالسَّمَاءَ رَفَعَهَا وَوَضَعَ الْمِيزَانَ أَلَّا تَطْغَوْا فِي الْمِيزَانِ وَأَقِيمُوا الْوَزْنَ بِالْقِسْطِ وَلَا تُخْسِرُوا الْمِيزَانَ﴾

Abdullah Yūsuf ‘Ali translated it as:

“And the Firmament has He raised high, and He has set up the Balance (of Justice), in order that ye may not transgress (due) balance. So establish weight with justice and fall not short in the balance.”¹⁴

Moreover, in the beautiful manner, balance in later consecutive verses may also be observed, like set of scales from man and jinn up to heavenly bodies e.g. moon and sun as well as oceans and earths. We may judge the equilibrium prevailing everywhere in the universe for example the sun and moon following their prescribed paths as stated in the verse 5 of Sūrah as:

الشَّمْسُ وَالْقَمَرُ بِحُسْبَانٍ

Abdullah Yūsuf ‘Ali translated the verse as:

“The sun and the moon follow courses (exactly) computed”¹⁵

In the note 5174 Abdullah’s translation also elaborates further as:

“In the great astronomical universe there are exact mathematical laws, which bear witness to Allah's Wisdom and also to His favors to His creatures; for we all profit by the heat and light, the seasons, and the numerous changes in the tides and the atmosphere, on which the constitution of our globe and the maintenance of life depend.”¹⁶

The concept of balance may also be extended to observe the its eccentric and bizarre behavior of light as the word used for the sun is ‘*Sirāj*’ and for the moon is ‘*Nūr*’ stated in the Holy Qur’ān as:

وَجَعَلَ الْقَمَرَ فِيهِنَّ نُورًا وَجَعَلَ الشَّمْسَ سِرَاجًا.

Abdullah translated it as:

“And made the moon a light in their midst, and made the sun as a (Glorious) Lamp?”¹⁷

One is donor of light and the other is receiver and reflector of light, both are punctual and servants of humanity as well as in the whole universe are playing an integral part of the well tuned and balanced system.

Ghāzī Subhī added regarding the raising of heaven and regarding specific balance by the Lord and to set a scale in every matter for

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betterment of affairs and benefit of discipline and stability for whole creature. So that humanity should subsist within the precise and accurate balance by Lord. Therefore He (Lord) ordains humankind to relish with the use of balance carefully and consistency for the warranty of life procession and travel continuously to preserve the rights and performance of duties.

This beautiful link of balance worded by Ghāzī Subhī in the following statement as:

رفع الله تعالى السماء ضمن موازين معينة، وجعل لكل أمر في هذا الكون ميزاناً، كي تصلح الأمور ويسود الانضباط والتوازن في جميع ما خلق، ولكي تتعايش البشرية ضمن الميزان الإلهي الحق. ولهذا فهو سبحانه يأمر الناس باستعمال ميزان الأشياء، بدقة واستقامة، لضمان استمرار مسيرة الحياة، بحفظ الحقوق، وأداء الواجبات.¹⁸

Sultān Bashīr explaining the verse “*And the Heaven, He raised high*” regarding the balance of heaven and lifting it up due to which stability exists he adds scientifically as:

“Thus balance in the Universe came with its rise that is due to expansion. Heavenly order prevailed only after it had attained a certain critical volume in space and time. Before that it was full of turbulence.”¹⁹

In the light of this verse 29 of Sūrah Sultān Bashīr further scientifically speaks that “*Every day He appears in new splendor*” means that, universe is highly dynamic and new worlds are continuously being added to it, befitting for carrying life.²⁰

The verse 29 of Sūrah also illustrates ‘*God, Man and Universe*’ relation and Lord’s Supreme Authority over what is other than Him.

يَسْأَلُهُ مَنْ فِي السَّمَاوَاتِ وَالْأَرْضِ كُلَّ يَوْمٍ هُوَ فِي شَأْنٍ

As Abdullah Yūsuf ‘Ali translated the verse as:

“Of Him seeks (its need) every creature in the heavens and on earth: Every day in (new) Splendor doth He (shine)!”²¹

Not only the balance but also the metaphysics of cause and effect nexus in toto related to Lord’s dominion where one exercises his limited access and can perform within a specific domain which is again an expression of responsibility and accountability may also be called this situation as the integral part of balance encompassing this world and the world of the Hereafter.

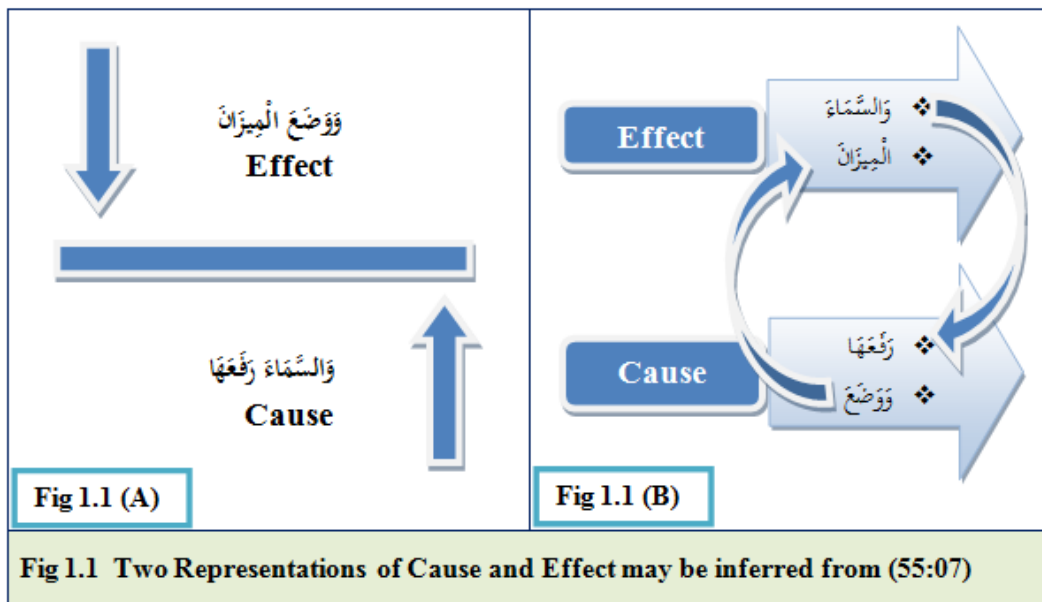
Cause and Effect Nexus

The verse seven of the Sūrah (55:07) may also be studied in

terms of cause and effect, expressing the ultimate cause which has no cause but all causes originate from that Supreme Cause.

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A fig 1.1 show causes and effects are under the command of Allah Almighty and manifest the power and omnipresence of the



Ultimate Reality.

Representation of figure 1.1 can also be elaborated in the following table as:

Example	Cause	Effect	Explanation
I	وَالسَّمَاءَ رَفَعَهَا	وَوَضَعَ الْمِيزَانَ	If we consider uplifting of heaven as a 'cause' then establishment of balance may be stated as 'effect'
II	رَفَعَهَا and وَوَضَعَ	وَالسَّمَاءَ and الْمِيزَانَ	Heaven's elevating and setup of balance is again the beautiful link between cause and effect controlled by

Example-I is easy to be understood while example-II demands more contemplation in which two actions have been separated in the column of Cause and heaven and balance stated in the column of Effect respectively.

Let us call our minds back to al-Ghazālī's 17th discussion in his treatise of 'Incoherence of the philosophers' about cause and effect and its comparison with Quantum physics, more than nine centuries separate the time of al-Ghazālī from the era of Quantum Physics. This research was conducted at McGill University by Umit Yoksuloglu Devji arriving at the conclusion he added as:

"Numerous parallels can be drawn between the conclusions reached by both as to the nature of physical reality and the ability of the human mind to perceive an objective view of its structure."²²

Although it is obvious that al-Ghazālī took an important examination of Greek science and philosophy in the light of his theological understanding but this discourse also the equilibrium at microscopic level that resembles the cosmic bodies motion as electron is said to be revolve around the micro universe of the atom showing integral role in the system and mange different affair very well.

The concept of continuous creation instead of causation by al-Ghazālī and Said Nursi also endorsed the similar view that causation is the antithesis of Tawhīd. As cause has no inhearent property to creat effect if it delimit the power of God and what was incorporated by Mutazilite in this regard from the views of Jabriyyah.²³

The idea of continuous creation by al-Ghazālī may also be learned and revisited in the light of Sūrah Al-Rahmān as:

يَسْأَلُهُ مَنْ فِي السَّمَاوَاتِ وَالْأَرْضِ كُلَّ يَوْمٍ هُوَ فِي شَأْنٍ

The translation of Abdullah Yūsuf 'Ali may also be seen as mentioned in the reference 21, but here it can also be analysed that the expression by Dr Muhammad Ṭāhīr ul Qādrī in the light of this verse elaborate the Ghazālīan concept of cause and effect. He rendered the verse (55:29) stating every moment of instead of every day as:

"All that are in the heavens and the earth beg from Allah alone. Every moment His Glory manifests anew."²⁴

In another words it may be further elaborated as:

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‘All that are in the heavens and the earth beg from Allah alone’ rejects the concept of inherent property of cause to create effect solely without Lord supermacy and “Every moment His Glory manifests anew” may also be strengthen the concept of continuous creation.

So universe in its dynamic structure and behaviour every cause and effect is an expression of splendor regarding Ultimate Reality from whom message of peace and tranquility originates to preserve the balance and to bestow the stability to everywhere.

Contributions of Muslim Scientists regarding Balance

It is also important thing to note that contributions of Muslims in the field of the balance have unique features. ‘Umar al-Khayām, al-Khazīnī and Ibn Mūsa did the great work on the balance. Through hydrostatic balance²⁵, al-Rāzī findings on specific gravity²⁶ have also been very significant. Similarly Sanad Ibn Alī, al-Birunī and Ibn Sīna etc made research on the subject of balance.²⁷ It shows the importance of balance in physical domain of human life.

It can be stated that they were providing the apparatus and concepts in order to make exact measuring that has very crucial role in daily life of a society. In addition to the description of movement of the heavenly bodies, it is also indicated that the sun the source of the light while the moon is inert body and reflects because of incident rays of light from the sun.

As verse 6 of Sūrah Al-Rahmān states:

وَالنَّجْمِ وَالشَّجَرِ يَسْجُدَانِ

Abdullah translated the verse as:

“And the herbs and the trees both (alike) bow in adoration”²⁸

It may be translated as ‘the stars and trees prostrating before God’, where Oliver Leamen commenting this verse stated that all creation is Muslim, in the sense that every created thing submitting itself to the God.²⁹ While, Hassan S. Abū El Emīn also added that heavenly bodies are responsible to assist human survival on the planet earth, to teach him how to calculate time and how to use mathematical laws?³⁰

This is also an expression of submission and obedience instead of disruption and absence of balance. It is important thing to note that stability in the universe is due to the equilibrium (al-Mizān) through which the celestial bodies execute assigned performance in their specific trajectories. Our timekeeping is also directly related to

the movement of heavenly bodies which is also a great source of balance in our daily lives.

Sūrah Al-Rahmān: A Universal Concept of Maintaining Balance

Hence the concept of stability and equilibrium (al-Mīzān) as well as the absence of shortfall of the balance as instructed by Sūrah:

أَلَّا تَطْغَوْا فِي الْمِيزَانِ --- وَلَا تَحْسُرُوا الْمِيزَانَ

Abdullah Yūsuf 'Ali translated the verse as:

“In order that ye may not transgress (due) balance..... and fall not short in the balance.”³¹

From this guidance that provides a code of conduct for every walk of life and it becomes more obvious and essential in the era when war can be waged by chemical, biological or nuclear weapons.

As it is stated by Sūrah (55:33) that Lord Omnipresence and Omnipotence as:

يَا مَعْشَرَ الْجِنِّ وَالْإِنْسِ إِنِ اسْتَطَعْتُمْ أَنْ تَنْفُتُوا مِنْ أَقْطَارِ السَّمَاوَاتِ وَالْأَرْضِ فَانْفُتُوا لَا تَنْفُتُونَ إِلَّا بِسُلْطَانٍ

Abdullah Yūsuf 'Ali translated the verse as:

“O ye assembly of Jinns and men! If it be ye can pass beyond the zones of the heavens and the earth, pass ye! Not without authority shall ye be able to pass!”³²

The statement expressed whichever location in the heaven or earth O assembly of Jinns and men you will go to, there too will be the Kingdom and dominion of Lord alone. The theme may also be highlighted in these words that even in the highly progressive scientific era when human race would have ability to reach the climax of evolution up to upper heavenly and cosmological realm but one has to follow the ethics of peaceful global living exercising his power positively instead of extirpating and apocalyptic visions of a nuclear confrontation.

The verse, “كُلُّ يَوْمٍ هُوَ فِي شَأْنٍ” translated by Abdullah, “Every day in (new) Splendor doth He (shine)!³³ also denotes that cosmos is not a passive organism, but a dynamic structure in which of creation and recreation lead to more superb creations. Universal system is witnessing annihilation and creation at large scale every day.³⁴

Therefore, reality is the cause of all existence, implies that, all effects are being fulfilled by the reality, so, it is essential for the reality to exist by itself, which is also known as “Essential Existent” (واجب الوجود) and what is other than the Ultimate Real is contingent

being and their existence is due to essential being.

It may be added that phenomenon of equilibrium and symmetry in the nature of different bodies and entities can be associated with the message, what we take from verse 29 of Sūrah that is “every moment and instant He manifest a new.” And at the other hand it also shows the balance and its control by the force that is unique one and the system stability, transition and link of causes and effects are closely related to that matchless agency i.e. Ultimate Reality.

The concept of balance from Sūrah Al-Rahmān e.g. verses 7,8,9,29 and 33 may be called as comprehensive guideline to make the law to prevent balance loss in multidimensional aspects of man, global living and universe.

Force of Gravity and Universal Equilibrium

Heavenly bodies rotate around their own axes and also revolve together with the system as they are the integral parts of the universe with finely tuned order. Force of gravity establishes the equilibrium in this huge perfect system of universe. There are trillion of stars in the observable universe associated with each big galaxy.

Only three millimeters deviation of earth from defined trajectory limits results to throw life into the mouth of death. The deviation of the earth from its exact course is only 2.8 mm per 18 miles. Three millimeter (3 mm) instead of 2.8 mm would cause catastrophic disasters in the system, if the deviation is about 2.5 mm instead of 2.8 mm, all of us would freeze due to the change in orbit size. If the deviation is about 3.1 mm, we would be scorched to death and the earth subject to lifeless.³⁵

In cosmological measurements ‘light year’³⁶ is the smallest measuring unit for inter galaxies distances. Before mentioning the setup of balance the verse expresses “He raise sky high” as the lower sky is above from the central congregation of galaxies that the remoteness cannot be determined in the unit of light years. Hence the scientists don’t take into consideration such measurements by mentioning them infinite. So, near or far off, everywhere the performance of gravity is very important thing to understand the well balanced system in the control of Supreme Force that is originator of cause of causes and their effects.

Magnetic Fields and Balance (al-Mizān)

Harmful energetic charged particles coming from the sun towards earth may cause serious effects for the life of the residents

of the earth. It is mercy and favour of Lord that in the solar system the magnetic field of earth protects all terrestrial inhabitants from hazardous consequences may also be called as beautiful expression of balance and its maintaining factors.

Dr Atta ur Rahmān's research regarding the earth magnetic field may also be declared as the glimpse of balance, he stated that the phenomenon of two easts and two wests explaining with respect to the earth internal magnetic field effects which cause "Geomagnetic Reversal" interchanging the north with south that happened more frequently about two times in 50,000 years. He further stated that it is an interesting reality mentioned in the verse 17 of Sūrah Al-Rahmān as:

رَبُّ الْمَشْرِقَيْنِ وَرَبُّ الْمَغْرِبَيْنِ.

Abdullah Yūsuf 'Ali translated as:

"(He is) Lord of the two Easts and Lord of the two Wests"³⁷

Dr Atta ur Rahmān commented as:

"Obviously, each time the reversal of north and south occurs, east becomes west, and the west becomes east. The planet earth has therefore had two easts and two wests many times over its life period."³⁸

The earth's magnetic field exists because of circular movement of the earth having molten Iron core around inner solid core. This 'Magnetosphere' defends hazardous effects of cosmic rays towards earth, and responsible for protection and safety which is an expression of balance and a source of balance in daily life. The surface of sun has a temperature of less than 6000 K (5778K) but its atmosphere is at over 1 million K, this increase in temperature has important role for atmospheric balance of earth. Magnetism is also very important thing in pulsar, their observations have inferred to have extremely strong magnetic fields. Other astrophysical objects including moons, nebulae, and molecular clouds have also been observed to contain magnetic properties of some kind.³⁹

So, this is an expression of the perfect system, for human protection, unimaginable mercy and compassion of God upon His creation. It is the duty of man to admit repeatedly, His kindness and to gratitude Him.

It is important to add Edmund Wood's words that when a system attains the state of equilibrium, the exchange of energy does not stop, but for balance of system, it remains continuous. All the

particles of the matter subject to the position of acceleration in the form of slowing down or speeding up it can also be called as continuous adjustment.⁴⁰

Hence, in solar systems and those huge heavenly bodies that are being smashed but the reshaping process is going on without any disturbance of balance representing powerful wisdom behind them.

Balance (al-Mizān): Micro-Marco Cosmic System's Evidence

The study of force of gravity and magnetic field may be called as the examples of micro-macro discourse that can be further elaborated broadening its domain. At microscopic level Hydrogen atom having one electron in orbits around one proton, their electrostatic attraction to one another balanced by the centrifugal force due to the orbit. The process of creation and annihilation of electrons also happens in nature, we may add that phenomenon of emission and absorption of the photon as an expression of balance. For electron's annihilation, the existence of positrons is necessary; whereas the pair creation that is the creation of $e^+ e^-$ we require rest mass energy of these two particles also called as $2mc^2$. The photon, having zero rest mass and has its own antiparticle.⁴¹

Super symmetry is a continuous symmetry that mixes up Bosonic and Fermionic degrees of freedom. In space (x,y,z) and time (t) or in dimensions (x,y,z,t) a super symmetric principle has a set of supercharges denoted by Q_a , where "A" is an internal index that runs from 1 up to N, while the allowed values of N are 1, 2, and 4 and "a" is a left hander spinner index.⁴²

The role of hidden energy of the universe is also important phenomenon. Edmund wood stated that according to recent research 70 % of universe is consisted of dark energy and 25 % is dark matter and only 5% is normal matter and energy.⁴³ What Abdul Dā'im, al-Kāhīl quoted is that the galaxies represent about 5% of the cosmic building and the rest 95% is dark and unseen matter. According to scientific research four natural forces are in action for the fine tuning order of the universe like gravitational force, electromagnetic force, nuclear weak force and nuclear strong force.⁴⁴

Although the concept of eleven dimensions is also there for universal explanation, but the stated nature of subatomic particles may also important for the discussion of universal balance, aesthetics and swiftly end of the whole system in Qur'ānic term, as the twinkling of an eye (كَلَمْحِ الْبَصَرِ).⁴⁵

Neil Bohr in 1930 also indicated the 'quantum jump' the fundamental concept of Quantum Mechanics, proving that the new things are being created suddenly and swiftly.⁴⁶

Robert Audi stated in "The Cambridge Dictionary of Philosophy" regarding a Greek pre Socratic philosopher Democritus and conveyed us as:

"Drawing on both atomic theory and conventional wisdom, Democritus develops an ethics of moderation. The aim of life is equanimity (euthumiê), a state of balance achieved by moderation and proportionate pleasures. Envy and ambition are incompatible with the good life."⁴⁷

So, balance and justice had been the ethics and social norm of society for ancient time admitted by wisdom lover. As justice is the important property of aesthetics⁴⁸ therefore, it may be added that it enlarges our concept towards human's feelings that also demands balance and stability e.g. schizophrenia a mental illness in which one cannot comprehend what is real and what is not i.e. imaginary, a state of mental disorder and unstable situation of mind which worsen and degrade the patient condition due to balance less mentality.

Thus, it is unlawful to upset hurting any other human's sentiment and emotion has also been condemned by Islam severely that causes to make absence of balance in multidimensional aspects of human's life and what is other than this living.

Muhammad Umar Chapra draws the ethical foundations for the protection and balance of environment under the principle of 'No Injury'. According to this principle, Muslims are prohibited from harming others. He contends that the environmental degradation harms both the present and future generations. Therefore, it is an obligation of an individual and a society to protect it (in order to maintain balance).⁴⁹

It is recommended to launch a comprehensive study regarding the Islamic concept of balance as an alternative of the Modernity in the present era. So, various dimensions of the study may also be judged elaborating the universal concept of balance that encompasses the multidimensional views of anthropocosmic vision and its mutual stability.

Conclusion

As the Islamic cosmological paradigm considered equilibrium and balance to be the original state of the natural world.⁵⁰ The very

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concept of balance and its surety from basic human's faculties like impulses of anger, desire or appetite etc. as well as give and take, transaction in everyday management to that of universal equilibrium and harmonic behaviour may also be inferred from the various themes of Sūrah Al-Rahmān and its commands to shape one's life brimful of tranquility, stability and to resist the circumstances where balance is being shortfall and loss. Likewise in every day life our timekeeping is directly related to the movement of heavenly bodies which is also a great source of balance for the performance of human race.

It is concluded that from whole Sūrah sketch that one may be able to grasp i.e balance in physical realm what a well-defined, harmonic and accurate trajectories have been adopting by all these celestial bodies for long time. No doubt that even the slightest movement against the balance (al-Mizān) could have catastrophic failure and tragedy in the universal system. So, Islamic concept of balance as a *modus operandi* is a beautiful way to cope with any circumstance leading towards imbalance and imbroglio. While metaphysically from the weight of good actions and the gravity of bad deed also pictured in the Sūrah for human guidance.

Certainly, humanity is given the protected sealing to live and breathe, while highly radiated systems are around us. No doubt it is easy to grasp that these forces are identical everywhere in the universe and the physical laws that are being operated everywhere in the universe are the same. According to Grand Unification theory, we may add that the concept of forces is being reduced to the one Super Force. Hence indisputably, concluded that One Creator whose authority may also be realized in natural aesthetics and in the relation of causes and effects.

The theme may also be highlighted in these words that even in the highly advanced scientific period when human race would have ability to reach the climax of evolution up to upper heavenly and cosmological realm but one has to follow the ethics of peaceful living exercising his ability positively instead of extirpation and apocalyptic visions of a nuclear confrontation.

It is necessary for man to observe the universal rhythm and to follow the injunctions of 'Islamic Balance Paradigm' which may lead him to deal global humanity irrespective of race colour and religion with the applicable framework and to get his mind opened understanding God, man and universe relation as well as the gnosis

of Ultimate Reality without which one's life is just purposeless respiration.

References

- ¹ الأصفهاني، ابو القاسم الحسين بن محمد بن المفضل المعروف بالرابع الأصفهاني، معجم مفردات الفاظ القرآن ، ضبطه وصححه ابراهيم شمس الدين، ط1، منشورات دار الكتب العلمية بيروت ، لبنان /1418هـ-1997م ، ص594
- ² الزبيدي، محمد بن محمد بن عبد الرزاق الحسيني ،تاج العروس من جواهر القاموس، الناشر دار الهداية، ج 36 ،ص250
- ³ Al-Zamakhshari, Mahmood bin 'Umar, *Asās al-Balāghah*, published by Dār al Fikr, Beirut Lebanon 2006, p. 674
- ⁴ Ibn Manzūr, Muhammad bin Mukarram, *Lisān al-Arāb*, Vol 15, 5th edition, Dār Sader Publishers P.O.B. 10 Beirut Lebanon 2005, p. 205,206 and 207
- ⁵ الزمخشري، جار الله أبو القاسم محمود بن عمر، ا لكشاف عن حقائق غوامض التنزيل وعيون الأقاويل في وجوه التأويل، الناشر دار الكتاب العربي . بيروت سنة الطبع : 1407 هـ ج 4 ، ص444
- ⁶ Al-Rāzī, Fakhr al-Dīn Muhammad bin 'Umar, *al-Tafsīr al- Kabīr*, edited by Zia ud Dīn 'Umar, Vol 29,Dār al-Fikr Beirut Lebanon 1987, p. 90,91.
- ⁷ Yūsuf 'Ali, 'Abdullah, *The Holy Qur'ān: Text and Translation, tr Sūrah Al-Rahmān* (57:25), published by Islamic Book Trust Kuala Lumpur Malaysia 2007.
- ⁸ الزحيلي، د وهبة بن مصطفى، التفسير الوسيط ، الناشر دار الفكر – دمشق الطبعة الثانية - 1418 هـ، ج 27 ص198
- ⁹ Al-Marāghī, Ahmad Mustafā, *Tafsīr al-Marāghī*, Dār Mustafā al Bābī al Halabī Beirut Lebanon 1st edition 1946. Vol 27,p. 107
- ¹⁰ سيد قطب، إبراهيم حسين الشاربي، في ظلال القرآن، تفسير سورة الرحمن دار الشروق - بيروت- القاهرة 1412 هـ
- ¹¹ الشنقيطي، محمد الأمين بن محمد المختار بن عبد القادر الجكني، أضواء البيان في إيضاح القرآن بالقرآن، دار الفكر للطباعة والنشر والتوزيع بيروت لبنان الطبعة 1415 هـ - 1995 م ج7، ص65
- ¹² الديريزوري، عبد القادر ملاحوش، تفسير القرآن علي حسب ترتيب النزول بيان المعاني، مطبعة الترقى دمشق سنة الطبع 1382 ق، ج4، ص35
- ¹³ Unal, Ali, *The Qur'ān with Annotated Interpretation in the Modern English*, Published by light New Jersey USA 2007, p. 1241.
- ¹⁴ Yūsuf 'Ali, 'Abdullah, *The Holy Qur'ān: Text and Translation, tr Sūrah Al-Rahmān* (55:7, 8, 9)
- ¹⁵ Ibid., tr *Sūrah Al-Rahmān* (55:5)
- ¹⁶ Ibid., tr *Sūrah Al-Rahmān* (55:5), note.5174
- ¹⁷ Yūsuf 'Ali, 'Abdullah, *The Holy Qur'ān: Text and Translation, tr Sūrah Al-Nūh* (71:16)
- ¹⁸ آق بيق ، غازي صبحي ، القرآن منهاج حياة، ناشر علي بن نايف الشحود 1429 هـ/ 2008م، ج3، ص370
- ¹⁹ Mahmood, Sulṭān Bashīrs, *Doomsday and life after death*, Published by, Holy Qur'ān Research Foundation (HQRF) 60-C, Nazim-ud-Din Road, F-8/4, Islamabad 2010, p. 68
- ²⁰ Ibid., p.176
- ²¹ Yūsuf 'Ali, 'Abdullah, *The Holy Qur'ān: Text and Translation, tr Sūrah Al-Rahmān* (55:29)

Scientific Study of Balance (al-Mizān) in the Light of Sūrah Al-Rahmān

- ²² Umit Yoksuloglu Devji, *Al-Ghazālī and Quantum Physics: A Comparative Analysis of The Seventeenth Discussion of Tahāfat al-Falāsifa and Quantum Theory*, Thesis of Master Degree submitted to Institute of Islamic Studies, McGill University, Montreal, Canada August, 2003, p.100
- ²³ Mermer, Yamine Bouguenaya, *Induction, Science and Causation: Some critical Reflections*, Occasional Paper 23, Published by IRI, IIU Islamabad 1996, p.16,17
- ²⁴ Qādrī, Ṭahīr ul, *The Glorious Qur'ān*, Minhāj ul Qur'ān Publication, Sep 2011, tr *Sūrah Al-Rahmān* (55:29),
- ²⁵ **Hydrostatic Balance** is an equal arm balance which an object is weighed first in air and then in beaker of water to determine its specific gravity. Ref. Dictionary of Engineering by Mark D Licker, MC Graw Hill Company 2003, p. 282
- ²⁶ **Specific gravity** (sp.gr) or Relative density is the ratio of density of material to the density of same standard material, such as water at specific temperature, for example 4 degree C, or 60 degree F or for gases air at standared condition of pressures and temperature. (Ref. Ibid., p. 518)
- ²⁷ Quraishi, Mazhar Mahmood, *Introduction to Muslim Contribution to Science and Technology*, Islamic Research Institute Islamabad 1998, p. 74
- ²⁸ Yūsuf 'Ali, 'Abdullah, *The Holy Qur'ān: Text and Translation*, tr *Sūrah Al-Rahmān* (55:06)
- ²⁹ Kecia Ali and Oliver Leaman, *Islam the Key Concepts*, Routledge publication 270 Madison Ave, New York 2008, p.23
- ³⁰ Abu El Emin, *Scientific Miracles of the Qur'ān*, Dorrance Publisher U.S.A 2009, p. 230
- ³¹ Yūsuf 'Ali, 'Abdullah, *The Holy Qur'ān: Text and Translation*, tr *Sūrah Al-Rahmān* (55:7, 9)
- ³² Ibid., tr *Sūrah Al-Rahmān* (55:33)
- ³³ Yūsuf 'Ali, 'Abdullah, *The Holy Qur'ān: Text and Translation*, tr *Sūrah Al-Rahmān* (55:29)
- ³⁴ Mahmood, Sultan Bashir , *Doomsday and life after death*, Published by, Holy Qur'ān Research Foundation (HQRF) 60-C, Nazim-ud-Din Road, F-8/4, Islamabad 2010, p. 34
- ³⁵ Rashid, Dr Ahtisham, *Universality of Islamic Science*, published by HCSAN June 2010, p 59
- ³⁶ The distance traveled by light energy travels in one year at the rate of 186,000 miles per second.
- ³⁷ Yūsuf 'Ali, 'Abdullah, *The Holy Qur'ān: Text and Translation*, tr *Sūrah Al-Rahmān* (55:17)
- ³⁸ Rahmān, Dr Atta ur, *The Wondrous World of the Science*, published Eureka Xpress Karachi,p.27.
- ³⁹ Bennet, Euen David, *Cosmic Magnetism: The Plasma Physics of Recombining Universe*, Ph.D Thesis Glasgow University May 2012,p.10
- ⁴⁰ Wood, Edmund, *The Well-Balanced Universe*, published by Birchley Hall Press, U.K 2007, p.11
- ⁴¹ Srednicki, Mark, *Quantum Field Theory*, Santa Barbara Mark University of California 2006, p. 28
- ⁴² Ibid., p. 590

⁴³ Wood, Edmund, *The well- Balanced Universe*, published by Birchely Hall press, Farnborough, Hampshire, UK 2007, p.22

⁴⁴ Abdul Dā'im, Alkāhīl, *Secret of the Universe between Science and Qur'ān: New Scientific Miracle*, Translated by Eman Ahmad Ebrahim, 2009, p. 14

⁴⁵ *Al-Nahl* (16:77) **وَلِلَّهِ غَيْبُ السَّمَاوَاتِ وَالْأَرْضِ وَمَا أَمْرُ السَّاعَةِ إِلَّا كَلَمْحِ الْبَصَرِ أَوْ هُوَ أَقْرَبُ إِنَّ اللَّهَ عَلَى كُلِّ شَيْءٍ قَدِيرٌ**

And also mentioned in *Sūrah Al-Qamar* (54:50) **وَأَمَّا أَمْرُنَا إِلَّا وَاحِدَةٌ كَلَمْحٍ بِالْبَصَرِ**

⁴⁶ Mahmood, Sultan Bashir, *Talāsh-i Haqīqat (In Search of Reality)*, published by Dār al Hikmat Islamabad 2013, p. 177

⁴⁷ Audi, Robert, *The Cambridge Dictionary of Philosophy*, Second Edition, Cambridge University Press 1995/1999, p. 218

⁴⁸ *Ibid.*, p.11

⁴⁹ Chapra, M. Umar, *Islam and Economic Development*, International Institute of Islamic Thought and Islamic Research Institute. 1993, p.7

⁵⁰ Brown, Jihad Hashim, *Metaphysical Dimensions of Muslim Environmental Consciousness*, Tābah Foundation, Abu Dhabi, U.A.E. Number 2013, p.4