

The Idea of Infinity in Its Physical and Spiritual Meanings

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Abstract

This article compares the physical meaning of infinity with the spiritual meaning. It notes that infinity remains somewhat of a mystery in a physical world in which our comprehension is largely framed around the concept of boundaries. But our sense of the scope and nature of our understanding of finiteness has been gradually expanding with the development of human civilization, and is now expanding at an even greater rate than ever before, both at the micro level and the macro level. The article suggests that if we are ever to understand infinity, we have to move outside the dimensions of this physical universe as we perceive it, moving to that other and higher reality, to the metaphysical, or, as some would describe it, the spiritual. It has long been thought that the spiritual realm was the realm of the infinite, just as the material world was thought to be the world of the finite. Viewed in this light, there is no difficulty for many in associating the concept of infinity with the greater spiritual realm, that is, that realm that exists beyond the dimensions applicable to humanity in this physical world. But if the spiritual realm is infinite, and if the physical world is merely a subset of the higher spiritual realm, then arguably infinity also applies to the various dimensions of the physical world of existence through its ongoing evolution. The search for boundaries within those various dimensions may be merely a reflection of our limited perception as humans. The reality of the physical universe may be one of infinity in time, space etc., even though we may have difficulty comprehending this. Once we move beyond the finite physical perspective, then science and religion can come together, being different aspects of the total infinite reality.

Key words: Infinity; Physical; Science; Mathematical; Metaphysical; Spiritual

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The concept of infinity is of ancient origins and has puzzled deep thinkers ever since, right up to the present day. Aristotle wrote:

"...it is incumbent on the person who specializes in physics to discuss the infinite and to inquire whether there is such a thing or not, and, if there is, what it is."

Infinity remains somewhat of a mystery in a physical world in which our comprehension is largely framed around the concept of boundaries. This is partly because we live in a physical world that is governed by certain dimensions or limits – width, breadth, depth, mass, space, age and time. To our ordinary understanding, it is a seemingly finite world under those dimensions and we may find it difficult to comprehend something that by definition can have no beginning and no end, no limit or boundary. In a quote attributed to the author John Green, he stated:

"Endlessness is a really strange idea in a universe that is defined by its endings."

Thus a human life has a beginning and an end, at least in a physical sense. There is a sense of a rhythm or a cycle to life that speaks of beginnings and endings on an ongoing basis, and which applies not only to the individual but also to society as a whole. Thus we have the cycle of life each day and night, each birthday, each year, each century and each millennium. Historically civilizations and great empires have had a birth, fluorescence, decline

¹ Physics Bk III.4, Hardie and Gaye.

and then a fall. Religions also seem to move in similar cycles. We are born into a sense of finiteness².

This sense of finiteness is fortified by reference to our primary means of acquiring worldly knowledge, that is, through the intake of information into the brain via our human senses. Thus the human senses normally have their beginning in each individual. They evolve in the womb through to birth, and then they grow and develop successively to maturity and acuteness, until they begin to decline with advancing age, and eventually fail. In the absence of any idea of a collective consciousness, the senses of each individual are finite both in terms of capacity and time.

But our sense of the scope and nature of our understanding of finiteness has been gradually expanding with the development of human civilization, and is now expanding at an even greater rate than ever before. Thus in earlier millennia humans in small social groups were limited in perspective to matters concerning their local area of occupation or just beyond it. There was little recorded history except through the repetition of stories, etc. Their sensory experiences were necessarily limited. But as civilizations expanded these human sensory horizons also expanded, to the point where they covered the whole planet and the visible heavens, and reaching way back into recorded history. There are also theories that postulate that individual solar systems or galaxies, and perhaps even the universe itself, will inevitably come to an end at some very distant point in time.

In this contemporary age, science at the macro level is expanding human horizons out into the universe at an incredible rate. There are regular discoveries of new phenomena in the universe at immense distances from earth. The ancient debate as to whether the universe has an outer limit has drawn new interest, even if without a clear answer. At the same time, science has gone back in time to describe an assumed beginning of the universe in the Big Bang theory. Some suggest that even this was not the beginning. And in theory it is suggested that there may be multiple universes, even an infinity of universes.

At the micro level, science is delving deep into the foundational basis of all matter in the search for its constituent building blocks, and has been advancing amazing theories such as in quantum physics.

Because of the mystery surrounding infinity, some scientists argue that it doesn't even exist, that it is an illusion³. To them it may seem that infinity is only a concept without any substance or reality, in that it is incapable of being experienced in this physical realm.

They may argue therefore that infinity does not exist other than as an undefined and useless mathematical concept, a plaything if you like of mathematicians.

This may not be the majority view in science. Thus it is said to be possible in mathematics to have an infinity of consecutive numbers. The fact that you can never reach the last number of an infinite set of numbers is quite consistent with the very concept of infinity. Infinity is thought to exist, even if it can't be directly experienced by humans in this physical universe.

But this raises another question. If one searches for infinity in this material universe from a materialistic perspective, there is always going to be the possibility of something existing that is more of the same in material terms, otherwise one has not reached infinity. For example, if you think of any number of things, no matter however big that number is, there is always going to be the possibility of a higher number of those things. The quest is in effect doomed to failure⁴. It indicates that if infinity exists, it does not do so in the material universe as we understand it. It must exist in another realm of being, a non-material or metaphysical realm. This is sometimes called a transcendental view of infinity. Viewed from this perspective, perhaps that which is illusory is the concept of something being finite, not something being infinite. Perhaps particular varieties of finiteness are carved out of infinity, the true reality, and that our perception of finiteness is simply a limitation that is an essential component of the contingent human condition, something inherent in the human capacity to experience reality through the mere material. If we are ever to understand infinity, perhaps we have to move outside the dimensions of this physical universe as we perceive it, moving to that other and higher reality, to the metaphysical, or, as some would describe it, the spiritual.

A hint of this is found in Zen.

"When you reach the top of the mountain, keep climbing." Tolstoy wrestled with this issue in his darker moments:

"If a man lives he believes in something. If he did not believe that one must live for something, he would not live. If he does not see and recognize the illusory nature of the finite, he believes in the finite; if he understands the illusory nature of the finite, he must believe in the infinite. ...

For man to be able to live he must either not see the infinite, or have such an explanation of the meaning of life as will connect the finite with the infinite."

In the sacred Hindu Writings we find:

"The impermanent [objects of the senses] have no reality; reality lies in the eternal.

Those who have seen the boundary

² Thus Simone de Beauvoir wrote of our existence as characterised by finiteness and that the assertion of infiniteness was a form of evasion – The Ethics of Ambiguity, (1947). Abdu'l-Baha wrote "all things inform man of an end."

³ John Brockman. *This Idea Must Die: Scientific Theories That Are Blocking Progress* (Edge Question Series).

⁴The same applies to an infinite series of numbers, such as is the case when certain fractions are reduced to decimal places.

⁵ Quoted as a Zen Koan in Kevin Grange, "Beneath Blossom Rain: Discovering Bhutan on the Toughest Trek in the World" (2011), p. 284.

<sup>284.
&</sup>lt;sup>6</sup> A Confession, an essay by Tolstoy.

between these two have attained the end of all knowledge. Realize that which pervades the universe and is indestructible; no power can affect this unchanging, imperishable reality."

Einstein is reported to have said:

"My religion consists of a humble admiration of the illimitable superior spirit who reveals himself in the slight details we are able to perceive with our frail and feeble mind." (Bucky & Weakland, 1992)

This is where religion can come in. Religion has had close links with the concept of infinity for an exceedingly long time. It has long been thought that the spiritual realm was the realm of the infinite, just as the material world was thought to be the world of the finite. With the many past expressions of belief in a deity or deities, it seems that it was often thought that one of the attributes of that deity or deities was that of infiniteness, as distinct from the finite attributes of mere physical mortals.

St Thomas Aquinas took this further and taught the reality of both the finite and the infinite in a quantitative sense. But when applied to the concept of a monotheistic God, he said that the characteristic of divine infinity was of an absolute nature. It was a necessary break in the chain of causation, God being the necessary first cause of all existence.

Many of the ancient sacred writings of the great religions have express references to the concept of infinity. It is prominent in the Hindu, Buddhist, Muslim, Jewish, Christian and Baha'i sacred literature (Clegg, 2003). Thus the Buddhist writings state:

"The Enlightened One
Whose conquest is not turned into defeat,
Whom not even a bit of conquered passion follows That trackless Buddha of infinite range,"
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More often than not those sacred writings make reference to infinity in association with references to the spiritual realm or to spiritual life, sometimes including a deity. This is often associated with the concept of timelessness, or of moving beyond time, to the eternal or immortal⁹. In the Gospels, for example, there are frequent references to the reward of eternal life in the next world, references that has connotations associated with the notion of infinity. See, for example:

"In hope of eternal life, which God, that cannot lie, promised before the world began;" 10

Writing of the Baha'i approach to the Divinity and the infinite:

"In this day Bahá'u'lláh has said that the names and attributes of God are inexhaustible. Man has now reached the stage where he can comprehend this knowledge far greater than at any time in the past. It is a time when large masses of humanity are familiar with elementary mathematical concepts such as infinity ...Some people find it difficult to imagine anything that does not have limits while others find it difficult to think of anything in terms of limitations."

The spiritual idea of divine creation, found in many religions, clearly has a relationship to this concept of infinity. An absolute, all-powerful, supreme, infinite deity has as one of its characteristics what has been described as 'universality' in an absolute, unlimited sense:

"... universality is of God and all limitations earthly." 12

That supreme deity is said to act to bring into existence a physical universe out of this much greater realm of infinity, with its own system of universal natural laws, and to enable human beings to evolve within this system with their considerable but limited intellectual capacities. Those capacities operate within certain dimensions, resulting in humans having difficulty in conceiving of the infinite other than in a theoretical/mathematical sense. It is a little like carving a finite understanding out of the infinite.

This idea of a divine creation is not to be confused with arguments about creationism versus evolution. "Creation" in this context can mean the gradual bringing into existence of the physical universe, including the natural laws that go with it, as well as its ongoing maintenance and evolution. This is a process that extends over extremely long periods of time, or even over an infinity of time. Put another way, it is an idea of Divine creation that is an ongoing process if you like rather than a once only Divine creation, one in which the infinite is used to create beings with a finite perspective and understanding.

Viewed in this light, there is no difficulty for many in associating the concept of infinity with the greater spiritual realm, that is, that realm that exist beyond the dimensions applicable to humanity in this physical world. This applies, whether or not the same concept of infinity is applied to support the existence of some supreme deity. These dimensions can be seen to operate on us humans as a veil to our wider comprehension of the reality of the spiritual realm, and not as a cause for the denial that that spiritual realm actually exists. Thus the idea that infinity in this physical world is really an unattainable and incomprehensible concept fits with various religious teachings to the effect that the spiritual realm, and the idea of a supreme God in particular, are really ideas that are,

⁷ Bhagavad Gita 2.16-17.

⁸ Buddhist, Dhammapada - Sayings of the Buddha, 3.

⁹ It might be argued that the concept of infinity is purely mathematical and not connected to religious concepts of eternity. But it seems to me that this introduces a too limited meaning of infinity, used in a transcendental or spiritual context.

¹⁰ King James Bible, Titus.

¹¹ Robert T. Cameron, <u>The Disconnected Letters of the Qur'án and</u> the Significance of the Number Nineteen,

<. http://bahai-library.com/cameron_disconnected_letters_nineteen>.

^{&#}x27;Abdu'l-Bahá, Will and Testament of 'Abdu'l-Bahá.

in essence, beyond the comprehension of ordinary human beings¹³.

As to whether the physical world, with all its limitations, is merely some kind of sub-set of the higher spiritual realm, such that one is interrelated with the other, a reflection of the other if you like, reference is made to the Baha'i writings:

"from these spiritual realities infer truths about the material world. For physical things are signs and imprints of spiritual things; every lower thing is an image counterpart of a higher thing. Nay, earthly and heavenly, material and spiritual, accidental and essential, particular and universal, structure and foundation, appearance and reality and the essence of all things, both inward and outward -- all of these are connected one with another and are interrelated..."14

A few special individuals appear to be endowed with a much greater spiritual capacity in this respect and are able to comprehend more fully the spiritual side of reality. But for most of us, what may be lacking is the depth of our spiritual perception. It is not that the spiritual realm does not exist, but that our perception of it is inadequate or even non-existent.

If the spiritual realm is infinite, and if the physical world is merely a sub-set of the higher spiritual realm, then arguably infinity also applies to the various dimensions of the physical world of existence through its ongoing evolution¹⁵.Our search for boundaries within those various dimensions may be merely a reflection of our limited perception as humans. The reality of the physical universe may be one of infinity in time, space etc., even though we may have difficulty comprehending this 16 Another way of putting this is to assert that in the universe, there are no boundaries, that boundaries are an illusion. The physical merges into the infinite spiritual. Wilbur states:

"The ultimate metaphysical secret, if we dare to state it so simply, is that there are no boundaries in the universe. Boundaries are an illusion, products not of reality but of the way we map and edit reality. And while it is fine to map out territory, it is fatal to confuse the two.

It is not just that there are no boundaries between the opposites. In a much wider sense, there are no dividing boundaries between any things or events anywhere in the cosmos. And nowhere is the reality of no boundary seen more clearly than in modern physics." (Wilbur, 2001)

This view is supported in the Writings of my own religion, the Baha'i Faith, where it is said quite categorically that both this physical universe, and the higher spiritual realms of God, are infinite in nature and extent. The former is a reflection of the latter. There are in fact no ultimate boundaries, whether in the dimensions of time or space or otherwise, except in so far as we conceive them as part of our own intellectual perception and construct.

"This physical universe is infinite, and if material existence is endless, how much more so are the worlds of God! When we think of the visible worlds as infinite, how can we think that the worlds of God are limited? There is no beginning and no end to the material or spiritual worlds. Man passes through different phases and when in a lower consciousness he cannot comprehend the consciousness above."17

This is quite consistent with the common religious view that humans are primarily spiritual beings in a physical body, and that once the body comes to an end as such at physical death, there is a spirit or soul that survives and continues in other spiritual realms of existence. The physical body may have a limited life while combined in that particular bodily form, although the various elements that go into making that bodily form will still survive into their decomposed state. There is no loss of energy or matter, merely of form and composition. At the same time the spirit or soul of the person in question is infinite, at least potentially, and survives physical death as it continues in the spiritual realms of existence.

Science of course, by its very nature, being a study of the same dimensions that limit the physical human condition, is only equipped to make discoveries about the physical universe. But as modern science pushes out the known boundaries further and further under all the dimensions of the physical world to which it is subject, is it coming any closer to the world of infinity? Certain ancient Greek philosophers would answer in the negative. Infinity simply retreats in the face of such advances. This suggests that there is no end to the prospects of further scientific discoveries, and no prospect of science ever coming directly into contact with the spiritual realms.

But the fact that science may not be able to make direct discoveries about the spiritual realms does not mean that those realms do not exist. It is just that science is not equipped by its methodologies to discover those realms. It simply cannot transcend the perception of finiteness inherent in the physical world. Science operates through human sensory perception and as such is a product of the material world.

Baha'u'llah states in Gleanings from the Writings of Baha'u'llah,

[&]quot;To every discerning and illuminated heart it is evident that God, the unknowable Essence, the Divine Being, is immensely exalted beyond every human attribute, such as corporeal existence, ascent and descent, egress and regress. Far be it from His glory that human tongue should adequately recount His praise, or that human heart comprehend His fathomless mystery. He is, and hath ever been, veiled in the ancient eternity of His Essence, and will remain in His Reality everlastingly hidden from the sight of men."

Provisional Translations, 'Abdu'l-Baha

¹⁵ Abdu'l-Baha has written -"Know thou that the expressions of the creative hand of God throughout His limitless worlds are themselves limitless. Limitations are a characteristic of the finite, and restriction is a quality of existent things, not of the reality of existence. This being the case, how can one, without proof or testimony, conceive of creation being bound by limits?" (Tablet of the Universe, provisional translation).

Science has yet to pronounce on whether the universe is infinite.

¹⁷ Abdu'l-Baha, <u>Divine Philosophy</u>, p. 116

And yet the concept of infinity continues to have an important place in human thought. The more that science pushes out the boundaries of human knowledge, the more it gives rise to doubts about the existence of actual ultimate dimensional boundaries. Some scientists may be defensive of the idea of finiteness when applied to the known universe, such as in their adherence to the theory of a total and original beginning of the present universe in the theory of the Big Bang. But even if that theory is accepted as being correct, there may well have been prior forms of physical existence of a different nature or dimensions. There may even have been an infinite number of cyclical Big Bangs over an infinite period of time¹⁸. There is recent evidence of scientific opinion that lends some support to this view. Such a view is also not necessarily inconsistent with a religious view of a divine creation in the sense of an infinite and ongoing creation. And that concept of infinity may reach even further in the scientific theory of there being an infinite number of parallel universes.

And part of the problem of accepting the reality of the infinite may be that it is often conceived of from the finite or material perspective. That is, it may be viewed as simply more and more of the same¹⁹, without end. It is not simply a matter, for example, of envisaging Hilbert's hotel with an infinite number of rooms for guests²⁰. From a spiritual point of view this can be seen as misleading or totally inadequate. Rather, the concept of infinity in the transcendental sense requires an approach that envisages the abandonment of all dimensions and limitations of

any kind²¹. That is, something beyond all the dimensions and limitations of any material universe, something that is unlimited and absolute. It is not just a matter of no physical or mathematical boundaries; is more fundamental than that. To grasp this more profound meaning, it is necessary to move beyond the normal operation of the human mind and its consciousness of the physical world acquired through its senses. In this regard it requires a higher level of consciousness, of a purely spiritual approach in order to begin to comprehend an infinite spiritual reality. Thus it has been stated:

"...God is infinite and His purpose cannot be limited in any way. If we ever dare to limit and circumscribe God's purpose within any bounds, then of necessity we have dared to set limitations to the omnipotence of God.

The created has dared to define his Creator!"22

"....whatever comes within the grasp of human mind is man's limited conception, whereas the divine Kingdom is unlimited, infinite."²³

The concept of finiteness seems to be under serious challenge in modern thought, whether applied to the macro or micro levels of physical existence. It presents as many challenges, if not more challenges, than the concept of infiniteness. We are becoming accustomed to thinking in terms of almost unbelievable immensity or vastness at the macro level, and in terms of incredible minuteness at the micro level, with no apparent end in sight. Penrose wrote:

"...in the early days of quantum mechanics, there was a great hope, not realized by future developments, that quantum theory was leading physics to a picture of the world in which there is actually discreteness at the tiniest levels. In the successful theories of our present day, as things have turned out, we take spacetime as a continuum even when quantum concepts are involved, and ideas that involve small-scale spacetime discreteness must be regarded as 'unconventional.' The continuum still features in an essential way even in those theories which attempt to apply the ideas of quantum mechanics to the very structure of space and time.... Thus it appears, for the time being at least, that we need to take the use of the infinite seriously, particular in its role in the mathematical description of the physical continuum." (Penrose, 2005).

The appearance of solidity, predictability and finiteness in the material world is giving way in the face of amazing new scientific concepts which challenge our traditional ways of thinking about the material world and its composition and functioning. The dimensions of the physical universe are seen to be not as rigid and inflexible as might previously have been thought. And there may

¹⁸ Steinhardt, P. J., & Turok, N. (2001). Cosmic Evolution in a Cyclic Universe. Physical Review D, 65(12). "A Cyclic Model of the Universe", Science 296 (5572): 1436–1439. There are other scientific cyclical theories.

Whatever that 'same' may be – physical things, distance, time, etc. ²⁰ In a lecture given in 1924, German mathematician David Hilbert introduced the idea of the paradox of the Grand Hotel.

[&]quot;Let us imagine a hotel with a finite number of rooms, and assume that all the rooms are occupied. A new guest arrives and asks for a room. "Sorry," says the proprietor, "but all the rooms are occupied." Now let us imagine a hotel with an infinite number of rooms, and all the rooms are occupied. To this hotel, too, comes a new guest and asks for a room. "But of course!" exclaims the proprietor, and he moves the person previously occupying room N1 into room N2, the person from room N2 into room N3, the person from room N3 into room N4, and so on.... And the new customer receives room N1, which became free as the result of these transpositions. Let us imagine now a hotel with an infinite number of rooms, all taken up, and an infinite number of new guests who come in and ask for rooms.

[&]quot;Certainly, gentlemen," says the proprietor, "just wait a minute." He moves the occupant of N1 into N2, the occupant of N2 into N4, and occupant of N3 into N6, and so on, and so on... Now all odd-numbered rooms became free and the infinite of new guests can easily be accommodated in them."

²¹ This presumably includes mathematics itself as it is presently known. Mathematics can be seen as a system that is directly related to the attributes or dimensions of the physical universe of material things or concepts, and not of the greater spiritual reality, which itself is beyond all such attributes and dimensions, the realm of the absolute and non-contingent..

²² Abdu'l-Baha, Foundations of World Unity, p. 53.

²³ Abdu'l-Baha, The Promulgation of Universal Peace, p. 173.

be many more dimensions than we are aware of. The perspective of the viewer is seen as being an integral part of the nature of the physical reality in quantum physics, putting the issue of pre-determined ultimate boundaries into question. On one scientific view at least, it leads in the direction of the "ultimate reality", beyond the illusion of time and space (Bernard d'Espagnat, 2009). Proven science and true religion, divorced from superstition, may increasingly be seen as different approaches to, or aspects of, the same infinite reality, using different methodologies from different perspectives.

As part of these developments, a parallel textual study of the holy books of the great religions can provide a new and, it is suggested, complimentary view of the physical universe and its relationship to a much greater, dimensionally unconfined reality of a spiritual nature. Those writings, for some time widely dismissed as irrelevant and pure superstition in the face of the 19th century scientific revolution, are now being reexamined to see how they can provide new insight into the anomalies and complexities revealed by science. The search for spiritual insights in those writings to compliment scientific discoveries and theories is only just beginning. This requires an acceptance of the limitations of science, as well as an acceptance that genuine science and religion shorn of superstition can run in parallel and help to reinforce one another. Both are essential to a proper understanding of reality.

So how is it possible to differentiate the physical from the spiritual by using the concept of infinity? Arguably if one gives a part of a physical object to another, the remainder is diminished, whatever its size or quantum. It is most likely to be perceived as being a finite resource. On the other hand, if a spiritual gift is given to someone, the remainder is not diminished in any way. For example, if you accept that pure altruistic love is a spiritual force, then by bestowing love on another, your own font of love is not thereby diminished. Taken further to the example of the Divine or Holy Spirit, a concept accepted by most great religions, being that which emanates spiritually from the one supreme Deity, that is, a gift of that Spirit freely available to a person. A gift of that Spirit does not in any way diminish the storehouse of that Divine Spirit that remains. It is infinite. One can therefore identify the spiritual by reference to its infinite nature.

The crossing-over point between the scientific and the spiritual can be identified as being at the point where one moves from the finite perspective to the infinite reality. That point may be identified as being the point at which the dimensions that control and limit human understanding of the material universe are put to one side or are transcended. In the Holy Quran it is called "the lote-tree of the utmost boundary"²⁴

It may not seem a clearly identifiable point in the

human perspective, not a precise division between one thing and another, but rather a merging of one thing into a greater other. It is largely a matter of moving from our limited perspectives and methodology on one side, into the absolute reality on the other. Science cannot undertake this crossing, because it is a human activity limited by those material dimensions. But more and more science is pointing in the direction of this crossing as it rapidly extends the boundaries of human knowledge.

Individual human beings can endeavor to make this crossing of their own choice, using forms of pure spiritual knowledge beyond that of their sensory perception of the physical universe. Among these must be the study of the Holy Books of the great religions. They can be assisted by an acceptance that true reality is a reality characterized by the infinite, and that finiteness is just the appearance of a human dimensional factor, not descriptive of the totality. These human beings will be those who reject the view of the materialists that insist on the total, exclusive and exhaustive reality of finiteness in the universe as perceived through their own human senses, a reality which is seen as a totality, and beyond which is believed to be only human supposition and conjecture. But of course those that dogmatically assert this view also posit a position of conjecture by asserting to total supremacy of the human senses. An unbiased examination of the evidence will reject the view as to the total accuracy and reliability of the human senses, just as they will reject the view that science has exclusive access to all the answers as to the nature of reality. The broader view postulates that science is not the only path to knowledge and the identification of reality.

Viewed in this light, once the reality of the infinite is accepted, and if, as is argued, that infinity can be regarded as a principal characteristic of the spiritual realm, then it is but a short step to conclude that there is a supreme spiritual entity, named by humans as "God" or any other appropriately dignified and sacred name, at the pinnacle of that spiritual realm, an absolute and all powerful spiritual entity or deity. Again, the fact that we cannot comprehend the essence of that entity does not mean that that entity does not exist, but rather that it reflects the dimensional limitations imposed on us as humans in the physical world. To have carved out the material world, from this greater spiritual reality, a material world inhabited by intelligent human beings who necessarily operate within limited dimensions, there must be an absolute, infinite, all powerful essence that gave the material universe its form and dimensions. Thus it was written:

"...as to the Power that knoweth no limitations; limitation itself proveth the existence of the unlimited, for the limited is known through the unlimited, just as weakness itself proveth the existence of power, ignorance the existence of knowledge, poverty the existence of wealth."25

²⁴ The Qur'an (Pickthall tr), Sura 53 - The Star.

²⁵ Abdu'l-Baha. Baha'i World Faith (p. 343). A similar argument was advanced in the late nineteenth century, when Georg Cantor argued that the mathematical concept of potential infinity presupposes the mathematical concept of actual infinity. This argument was accepted by most later mathematicians.

Clegg writes from the different perspective of the person who believes in a supreme deity:

"If you believe in a divine creator who is more than the universe, unbounded by the extent of time, it's hard not to make a connection between this figure and infinity itself." (Clegg, 2003).

On this view, it is posited that the ongoing and limited physical reality, comprising this universe, is created by a supreme deity out of that deity's infinite spiritual reality. with its own natural laws, limitations and dimensions. We are part of that limited reality and hence our perception of it seems finite. This limited physical reality was and is so amazingly designed and fine-tuned with such precision as to be tailor-made for the evolution of intelligent human life, the highest form of life that can exist. The limited capacity of us humans is still great, however, in that we are able to appreciate the nature of the reality within which we exist. The very existence of this limited physical reality, including the evolution of intelligent human life within it, is proof of the existence of this infinite spiritual reality. The perception of the finite is itself proof of the infinite. This is a variation of earlier rational arguments as to the proof of the existence of God²⁶.

Some commentators have seen this as axiomatic that the concept of infinity is necessarily associated with the spiritual realms and the supreme deity. Thus John Hick writes: "Let us begin with the recognition, which is made in all the main religious traditions, that the ultimate divine reality is infinite, and as such transcends the grasp of the human mind. God, to use our Christian term, is infinite. He is not a thing, a part of the universe, existing alongside other things; nor is he a being falling under a certain kind and therefore he cannot be defined or encompassed by human thought. We cannot draw boundaries around his nature and say that he is this and no more. If we could define God, describing his inner being and his outer limits, this would not be God. The God whom our minds can penetrate and whom our thoughts can circumnavigate is merely a finite and partial image of God" 27. B6-17)

REFERENCES

Bucky, P. A., & Weakland, A. G. (1992). The Private Albert Einstein (p. 86).

Clegg, B. (2003, Robinson). *Infinity: The Quest to Think the Unthinkable* (Chapter 5).

Wilbur, K. (2001, Shambhala). No boundary: Eastern and western approaches to personal growth.

Penrose (2005). The Road To Reality: A Complete Guide to the Laws of the Universe (p. 363).

Bernard d'Espagnat (2009). Quantum weirdness: What we call 'reality' is just a state of mind. The Guardian, 21 March 2009.

Clegg, B. (2003, Robinson). *Infinity: The Quest to Think the Unthinkable* (p.47).

Hick (1993). *God and the Universe of Faiths* (One world, p.139).

²⁶ In a somewhat similar argument, René Descartes remarked that the concept of actual infinity is so awesome that no human could have created it or deduced it from other concepts, so any idea of infinity that humans have must have come from an infinite God directly. Thus God exists. Descartes is using the concept of infinity to produce a new ontological argument for God's existence.

²⁷ Hick (1993). God and the Universe of Faiths (One World, p.139).