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MORAL SINGULARITY, CONSCIOUSNESS, AND ARTIFICIAL INTELLIGENCE IN THE ALGORITHMIC AGE OF ISLAMIC ECONOMICS, FINANCE, SOCIETY, AND SCIENCE

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Abstract: This paper analytically argues that received scientific doctrine and Islamic scholarship, by being methodologically independent of the principle of pairing the moral and material essence of events, have left a significant gap in understanding reality. Such a gap is referred to as exogenously independent, that is, as existing merely as a moral singularity in the methodological worldview of knowledge that otherwise pervades "everything.' This latter essence pronounces the central role of Tawhid as the pervasiveness of the conscious continuum. The pervasive nature of the conscious continuum in Tawhidi unity of knowledge brings out the analytical power to explain the core of the socio-scientific methodology of pairing (complementarities). This study derives a logical formal model of the interrelations between the centerpiece of the unity of knowledge, consciousness, configuration of epistemic moral-materiality, and socio-scientific intellection in the post-modern algorithmic age. For example, this vastness is inherent in the new epistemic configuration of the AI regime of the algorithmic age. Such an intellectual vista of divinely induced formal inherences in the order of reality is pointed out in this paper as pertaining to the new episteme of socio-scientific moral-materiality holism. A comparative methodological approach was used. The emergent subtle areas of discourse form the originality of the paper, its focus, and its theme.

Keywords: *Algorithm, Artificial intelligence, Consciousness, Moral-material integration, Qur'an, Tawhid (monotheism), Unity of knowledge.*

Abstrak: Makalah ini secara analitis berargumen bahwa doktrin ilmiah yang diterima dan keilmuan Islam, dengan tetap metodologis independen dari prinsip pemasangan esensi moral dan material dari suatu peristiwa, telah meninggalkan kesenjangan signifikan dalam memahami realitas. Kesenjangan tersebut disebut sebagai exogenously independent, yaitu sebagai keberadaan yang semata-mata berupa singularitas moral dalam pandangan metodologis pengetahuan yang mendominasi "segala sesuatu." Esensi yang terakhir ini menegaskan peran sentral Tawhid sebagai pervasivitas dari kontinum kesadaran. Sifat menyeluruh dari kontinum kesadaran dalam kesatuan pengetahuan Tawhidi menghadirkan kekuatan analitis untuk menjelaskan inti dari metodologi sosial-ilmiah berbasis pemasangan (complementarities). Studi ini menurunkan model formal logis mengenai interrelasi antara pusat kesatuan pengetahuan, kesadaran, konfigurasi moral-material epistemik, dan intelijensi sosial-ilmiah dalam era algoritmik pasca-modern. Sebagai contoh, keluasan ini melekat dalam konfigurasi epistemik baru dari rezim AI di era algoritmik. Wawasan intelektual tentang keterkaitan formal yang ditanamkan

secara ilahi dalam tatanan realitas ini, ditunjukkan dalam makalah ini sebagai bagian dari episteme baru holisme moral-material sosial-ilmiah. Pendekatan metodologis komparatif digunakan. Bidang-bidang diskusi halus yang muncul menjadi bentuk orisinalitas, fokus, dan tema dari makalah ini.

Kata kunci: Algoritma, Artificial intelligence, Integrasi moral-material, Kesadaran, Kesatuan pengetahuan, Qur'an, Tawhid (monoteisme)

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INTRODUCTION

Singularity, as the absence of morality and ethics as an exogenous phenomenon in received science, is rejected in the Qur'anic methodological worldview and replaced by the continuum of moral-material in "everything," which is foreign to the received socio-scientific field. Singularity is rare and unexplained in scientific intelligence. The concept of singularity is the absence of moral-material complementary embedding of events in the conscious continuum, whereby all events are declared by the Qur'an to be jointly induced by the interrelation between the moral and the material. Tawhidi rejects the concept of singularity and thus the Qur'anic worldview of moral-material embedded continuity of every event. The meaning of the received socio-scientific singularity of moral-material inclusiveness in mainstream thought and its absence in an explained theory of moral-materiality continuity is central to understanding the phenomenological divide. The received doctrinaire rejects the moral-material complementarity of every event. The Qur'anic methodological worldview explains the pervasive existence of moral-material complementarity and rejects the notion of singularity.[1]

Algorithmic innovations, such as artificial intelligence, are critically viewed in the face of the Qur ‘anic worldview in Islamic socio-scientific studies based on complementarities between the moral (s) and material (m) embedding in every event, and hence in the emergent methodology derived from the Qur’an. This argues against the existence of the sm-duality of received scientific doctrinaire, as moral-singularities in everything outside the Qur’an. In this regard, the principal and central role of monotheism (tawhid) as a universal and unique law is invoked with analytical

[1] The truth concept as derived from the Qur’an in reference to Tawhid as the universal law, is denoted by the inter-causal inter-relationship between them as follows: [Tawhid as law of Unity of Knowledge ↔ Conscious continuum ↔ moral continuity (therefore, qur’anic rejection of the concept of ‘moral singularity’ except for study].

essence. This grand Tawhidi worldview is the essence of reality explored in this study the entitled topic.

In the field of AI as the emergent algorithmic high science, the moral-material dissolution of the socio-scientific concept of moral singularity, meaning the exogenous relationship of morality and ethics in all events, induces the permanent nature of artificial intelligence. When viewed as an algorithmic creation of the specialized analytical mind devoid of moral inclusiveness as the inextricable, the conversely inter-causal endogenous essence of reality derived from the Tawhidi law is permanently invoked. In such a state of the post-modern age, socio-scientific development with moral singularity and artificial intelligence fail to examine the formalism of moral-material complementarity prevalent in all events governed by the Qur'anic Tawhidi methodological worldview. Therefore, the concept of moral singularity in specialization is upheld as the nature of all received socio-scientific intellection.

That is, the ensemble of the history of the conscious continuum of events endogenized by moral-material continuity and the absence of moral singularity, as in the Qur'anic Tawhidi worldview, is fully non-existent in the received socio-scientific domain.[2] Artificial intelligence as an algorithmic technology intensifies the delink between consciousness and its moral-material continuity (conscious continuum) in "everything."[3]

The following concepts are treated as the analytical groundwork of the Tawhidi theory in the study of the Islamic philosophy of science and its wide applications. Their analytical and certain practical applications are then inquired in Islamic economics and finance and the general body of scientific doctrines. Emergent analytical concepts and applications are critically studied in the modern age of theoretical and applied fields of socio-scientific algorithms.

The novel concepts of "moral singularity", "moral-materiality continuity", and "conscious continuum" are inseparable from that of "unity of knowledge" in reference to the Tawhidi (Islamic monotheistic) worldview associated with its verities of the meaning of the socio-scientific world-system. This comprises the substantive meaning of "everything." The substantive ideas are covered in this text. To simplify these substantive concepts, first, the precept of "unity of knowledge" derived from the Qur'anic centricity of Tawhid, implies the socio-scientific and belief-centered worldview of the LAW of divine Oneness as the infallible design of the paired world-

[2] John Lukacs, *Historical Consciousness: The Remembered Past*, 2nd ed. (New York: Routledge, 2017), 55, https://doi.org/10.4324/9780203790045.

[3] Ashrafian, Hutan. "Artificial Intelligence and Robot Responsibilities: Innovating beyond Rights." *Science and Engineering Ethics* 21, no. 2 (April 16, 2014): 317–26. https://doi.org/10.1007/s11948-014-9541-0.

system overarching "everything." In this regard, the Qur'an declares the pervasively unified by complementary and participative interrelations in (Qur'an 36,36).

The universal law of Oneness, as explained, establishes its inextinguishable presence across the pervasively gapless universe by the design of the Signs of Allah (al-ʿālamīn washed by Āyat Allāh). Such a continuous universe, most minutely washed by the fullness of knowledge premised in the law of the unity of knowledge, as the meaning of pairing across the continuum, is described and manifested in terms of the pervasiveness of the knowledge of Truth. Truth, as the gapless knowledge of the unity of being, is represented as morality alone. The negation of the gapless universe of the Signs of Allah as an explication of the continuum of Truth as "morality" gives the conception of "moral-materiality continuity", contrary to "moral singularity." "Moral singularity" is a concept that is fully embedded in the non-Tawhidi perception of the socio-scientific mind-matter domain. The gapless paired universe as al-ʿālamīn of the Signs of Allah comprises the Qur'anic continuous universe across "everything." The non-Tawhidi world system comprises the theory and manifestation of the universe, wherein "morality" (Kantian *a priori* being) remains permanently disjoint from the Kantian "a posteriori." The disjoint nature of "morality" is termed in this paper as "moral singularity."[4]

The concept of the "conscious continuum" is derived from the Qur'anic declaration of consciousness, which was the first essence of the creation of '' everything." In this sense of universality, the continuity of knowledge embedding consciousness and explaining the design of "everything" by means of such a phenomenon in continuity of consciousness and being is referred to in this paper as "conscious continuum."

This paper aims to highlight the issue of the lack of moral-material integration in socio-scientific thought across all mainstream methodological worldviews and its misguided acceptance in shari'ah as shaped by human sectarian preferences. Consequently, this study introduces an emerging methodological worldview grounded in Qur'anic Tawhidi ontology, which seeks to establish the inherent inter-causality between the moral-material essence, consciousness, and the intellectually evolving world system. This is presented as an algorithmic interface connecting human intelligence, reality and reflective metauniverses.

Such an endogenously complemented world system and its explanatory thought for every event is referred to as the precept of "unity of knowledge." This

[4] Kitcher, Philip. "A Priori Knowledge." *The Philosophical Review* 89, no. 1 (January 1, 1980): 3. https://doi.org/10.2307/2184861. Ware, Owen. *Kant's Justification of Ethics*. oxford university pressoxford, 2021. https://doi.org/10.1093/oso/9780198849933.001.0001.

reflects the learning universe of the unity of knowledge in "everything" caused by the concept and application of the monotheistic law of tawhid.

This paper expounds this thought by formalizing the Qur'anic Tawhidi domain of complementing the theory of moral (S)-material (M). Such universality of the nature of events is contrary to the mainstream concept of "singularity" ($S \cap M = \phi$). Thereby, consciousness and the algorithmic description of the metauniverses of learning in unity of knowledge are configured in the scheme and order of "everything," just as this property has been ignored both in received science and its methodological imitation in shari'ah of the latter age and in scholarship.[5] This imitative compliance of the shari'ah with the emergent episteme of science is concurrent with the Qur 'anic meaning of shar'iatan. Reference to the "Way" in these verses signifies the invoking of the methodological episteme arising from Tawhid as universal law, its configuration of the resulting world-system, its formal order, specified applications, and sustainability converging onwards to the closure of the learning universe of "everything" in the ultimate fullness of knowledge in tawhid (monotheism).

The age of artificial intelligence (AI) as an algorithmic transformation of machines into humanoids has dawned and is penetrating all spheres of life. The question connected with its deep learning behavior is whether AI will ultimately learn automatically, exceeding human learning, or be the enhancing premise of a unified world system by the structure of AI in its complementary endogenous relations with moral-materiality induced by consciousness.[6] While the debate around this question and inquiry is vivid today, the possibility of an algorithmically engineered humanoid intellect is a fearsome invention of science and technology by the AI inquisition of privacy and the oppressive supremacy of the competitive owners and wielders of AI technology against others. The inroads of AI technology (T(AI)) into the field of highly

[5] Barrow, J.D. (1991). "Laws", in his *Theories of Everything, the Quest for Ultimate Explanation*, pp 12-30, Oxford University Press, Oxford, Eng.

[6] Kaku, M. (2015). "Consciousness – a physicist's viewpoint", in his *The Future of the Mind,* Chapter 2, Anchor Book, New York, NY. explains the idea of scientific consciousness in the following words. The dynamics and foundations of the participatory meaning of unity of knowledge linked with the primal foundation of moral consciousness relates to the Tawhidi episteme of unity of knowledge. Kaku writes: "Consciousness is the process of creating a model of the world using multiple feedback loops in various parameters (e.g. in temperatures, space, time, and in relation to others), in order to accomplish a goal (e.g. find mates, food, shelter)." Kaku refers to the above definition of consciousness as the 'space-time theory of consciousness'. In this paper, consciousness (phenomenology) is referred to in terms of spanning the circular causal moral-material embedding over knowledge, space, and time dimensions. The corresponding qur'anic meaning emanates from the concept of umamun: "There is not an animal (that lives) on the earth, nor a being those flies on its wings, but (forms part of) communities like you. Nothing has we omitted from the Book, and they (all) shall be gathered to their Lord in the end."

specialized innovation convey the exclusiveness of the materialist conquest of science and technology.

The reign of the moral order of knowledge and its resulting creative power, combining the moral and material constituents of intellection, belief, faith, and consciousness of knowledge, as in the case of the worldview of the unity of knowledge, will remain foremost. This is demonstrated in Figure 1A.[7]

Figure 1B shows the author's extended results of the two opposing effects of learning and consciousness by virtue of the moral-material complementarity of the evolutionary processes of the unity of knowledge. In Figure 1A, the AI application to solve the impending problem of singularity over time is explained by point B on the human materialist exclusive learning trajectory AB. C* signifies the intersection, that is, resolution, of the humanly outstanding complex socio-scientific problems by means of the exponentially advancing technological application of AI as CD in Figure 1A.

In Figure 1B, CD is a combination of materialist and moral learning curves pertaining to human and AI learning in the presence of moral-material integration of the unity of knowledge, as explained earlier. The nature of the curves signifies the evolutionary learning condition of the unity of knowledge. Figure 1B delineates the evolutionary learning curves embodying moral-material complementarity responding to consciousness in the continuous resolution of the singularity problem of socio-scientific outlook. Therefore, the points in Figure 1B exist in the conscious continuum of the evolutionary knowledge fields of the unity of knowledge, as shown by the interconnected layers of moral-material learning by the unity of knowledge.

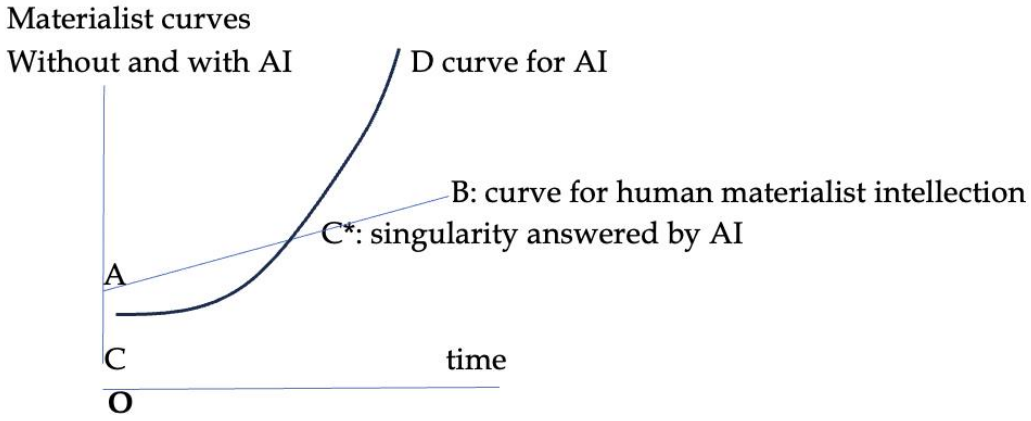

Figure 1A: Singularity-AI curves showing the problem of AI-humanoids exceeding human learning

[7] Taylor, T. "How Far Are We from AI Singularity? What It Means and Implications." *Hubspot*. Last modified May 19, 2023. https://blog.hubspot.com/marketing/ai-singularity.

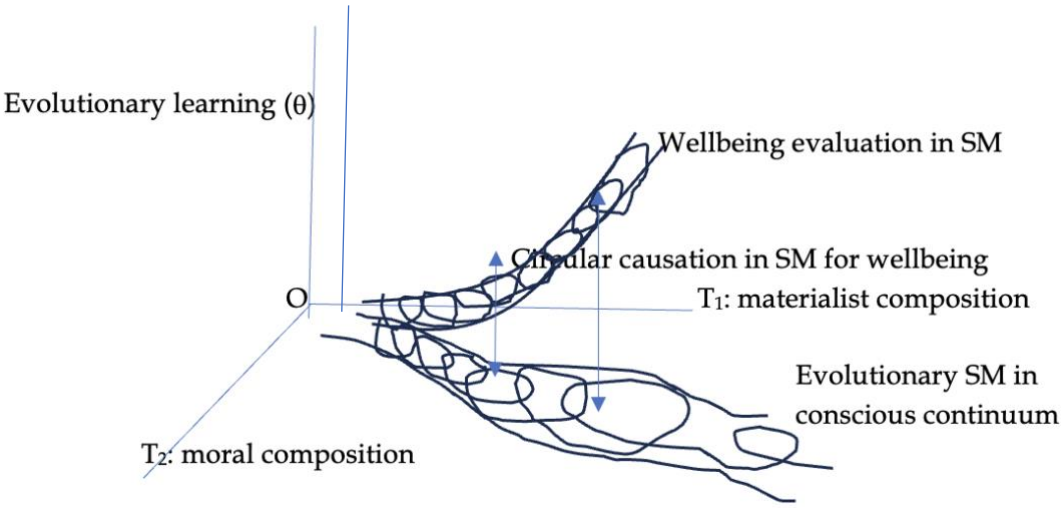

Figure 1B: Non-existence of singularities in the endogenous relations between SM with AI-embedded effect in conscious continuum.

LITERATURE REVIEW

Regarding the theory of moral singularity in science, if we extrapolate the meaning of Einstein's following statement, then the event of occurrence of singularity as a discontinuity in spacetime of the natural laws is not possible: "There is no such thing as an empty space, that is, a space without field. Space-time does not claim existence on its own, but only as a structural quality of the field." This is the conclusion of the general theory of relativity.[8] In contrast, the independence of matter or fields from space and time can be maintained in the special theory of relativity. These divergences in the physical and mathematical sciences highlight the vacillating nature of scientific theories and their inferences. Only in such an unsettled nature of scientific inquiry can singularities exist as gaps in the explanation of natural law. Partitioned methodological worldviews are also due to egoistic conflicts in the scientific community.

Regarding such dichotomous perspectives of science and scientists, the Stanford Encyclopedia of Philosophy states, "Singularities are an indication that the description offered by general relativity is breaking down.[9] Others believe that singularities represent an exciting new possibility for physicists to explore in astrophysics and cosmology, holding out the promise of physical phenomena differing so radically from any that we have yet experienced as to signal, in our attempt to observe, quantify and understand them, a profound advance in our comprehension of the physical world." "Such a view denies that singularities are real

[8] Albert Einstein, *Relativity: The Special and the General Theory* (London: Methuen, 1960).

[9] Stanford Encyclopedia of Philosophy, "Singularities and Black Holes," last modified February 27, 2019, Stanford University, https://plato.stanford.edu/entries/spacetime-singularities/

features of the actual world, and rather asserts that, they are merely artifacts of our current, inevitably limited, physical theories, marking the regime where the representational capacities of the theory at issue breaks down."

Such outstanding differences in scientific specializations can be found in the contrariness between the ways that Stephen Hawking and Roger Penrose thought of the existence of singularities of creation. For Hawking, the emergence of the universe in a Big Bang at the moment of creation is an event concocted by the contrived theory of the Black Hole and Big Bang. For Penrose, his theory of non-computability of the event of "consciousness" makes this a singularity as a failure of the physical laws at all exceptional points in the socio-scientific and mathematical metaverses. In all cases, "…. we should not think that general relativity is accurately describing the world when it posits singular structure—it is the theory that breaks down, not the physical structure of the world."[10]

There are also Richard Dawkins and earlier Bertrand Russell as vied atheists, who believe that "consciousness" is purely a material object, like the electrical activation of the brain as a machine and a biological entity. Such dissociation of the subject of "consciousness" from moral-material integrity leaves a permanent absence of the moral element from the subject of "consciousness." Dawkins-Russell conception of the universe, devoid of conscious continuum in moral-material essence of reasoning, leaves out the prime subject of "consciousness" in a void of holism in all matters of socio-scientific inquiry.[11]

David Hume upheld atheistic belief relating to "consciousness", and thereby, the stigma surrounding the grey concept of physical singularity, and the absence of critical realism in Western philosophy. Hume emphasized his universally inductive concept of the origin of consciousness in his expression, contrary to the deductive reasoning in conjunction with inductive reasoning: "And as the science of man is the only solid foundation for the other sciences, so the only solid foundation we can give to this science itself must be laid on experience and observation."[12]

Since the philosophies of David Hume and Immanuel Kant, the Western socio-scientific school and its protagonists have drifted into the problem of heteronomy.

[10] Stanford Encyclopedia of Philosophy, "Singularities and Black Holes".

[11] Richard Dawkins, *The Blind Watchmaker: Why the Evidence of Evolution Reveals a Universe Without Design* (London: Longman, 1986). Bertrand Russell, "Lecture 1: Recent Criticisms of 'Consciousness'," in *The Analysis of Mind* (London: Routledge, 2008).

[12] David Hume, "Of the Understanding," in *A Treatise of Human Nature* (Buffalo, NY: Prometheus Books, 1992).

This reasoning understands reality as being segmented between the ontological a priori pure reason and the deontological a posteriori part of the practical reason.[13]

The essential meaning of morality and ethics as a pervasive unity of knowledge experienced by complementarities between the good things of life has thus been discarded in all socio-scientific intellection. In Shari'ah, a universal methodological worldview has not been formalized. Consequently, such a moral dichotomy leads to singularities belonging to partitioned a priori and a posteriori reasoning. Thus, a permanent void remains between the moral and material domains of the otherwise integrated reasoning about the unified nature of the world-systems existing in their diversity.

Kant's wrote regarding the dualism between the a priori and a posteriori domain of knowledge, and thereby, between deductive and inductive reasonings, and pure reason and practical reason: "This, then, is a question which at least calls for closer examination, and does not permit any off-hand answer: whether there is any knowledge that is thus independent of experience and even of all impressions of the senses. Such knowledge is entitled a priori, and is distinguished from the empirical, which has its sources a posteriori, that is, in experience."[14] The reality of the moral interpretation of associated singularity rewards in the moral-material holism of every event is wholly rejected in the singularly partitioned physical meaning of the a priori and a posteriori partitioned worldview of socio-scientific order.

The contrast in the ontological foundation of thought, application, and inferences between received science and the Qur'anic methodological worldview establishes the distinctiveness of the derived Tawhidi methodology in all fields of intellection. The same problem of division between Tawhid as law and the post-modern emergence of scientific thought is repeated in the socio-scientific field.

The absence of the socio-scientific understanding of consciousness, and thereby, by deduction, of the continuous role of morality as a central endogenous function in animate and inanimate reality, is deeply rooted in Roger Penrose's scientific thought. From this absence of the continuous element in consciousness, and thereby in all socio-scientific thought, arises the permanence of the phenomenology of "moral singularity" in scientific thought. Penrose argues that this permanence of consciousness in socio-scientific thought lies in its impossibility of explanation by Quantum Physics.

[13] Immanuel Kant, trans. Lewis White Beck, "The General Principle of Morality," in *Lectures on Ethics* (Indianapolis, IN: Hackett Publishing Co., 1963).

[14] C.J. Friedrich, ed., *The Philosophy of Kant* (New York: Modern Library).

Penrose holds Quantum Physics to be the be-all of scientific thought. One of the causes of this inability of scientific thought is Godel's Theorem of Incompleteness of the Arithmetic System. Likewise, Quantum Physics lacks the fullest development to tackle the complete nature of the universe and how neurons operate in this complete universe. In our present physical conception, neurons are considered to be boundlessly interactive, which defies their interactive consequences, even by the existing mathematics of Penrose's quantum physics and Gödel's Incompleteness Theorem.[15] Thus, moral singularity occurs in physical spacetime. Thus, the linked functions of the "unity of knowledge" and the pervasiveness of "conscious continuum" remain absent. The reality caused by the inter-causal (↔) functioning of [Tawhid as the law of the Unity of Knowledge ↔ Conscious continuum ↔ moral continuum] remains null and void. However, this is not the case with the Qur'anic Tawhidi law of the unity of knowledge that simulates the socio-scientific wellbeing objective criterion, subject to the entire available system of circular causation relations between the multivariates. Such a system of simulacra for any problem in the domain of "everything" that transcends spacetime by the inclusion of knowledge that is ontologically and epistemologically derived from the Tawhidi foundation, enables such simulacra to be functionally viable, albeit in the realism of the incompleteness of knowledge and its embedded verities in "everything."

There is also the revolutionary mathematical contribution of Georg Cantor to the theory of transfinite numbers. It states that infinite series can be paired and compared. Therefore, infinities are denumerable and comparable. In respect of the corporeal nature of heaven in the realm of supercardinal nature of infinity of heaven, such a supercardinal state of heavenly corporeality can only be a function of optimal knowledge endowed in heavenly beings, but not describable.[16] Thus, the inability of mathematics as the foundation of science to go beyond the transfinite number system implies the denial of the Hereafter/Heaven. Therefore, there is no formalism for the inevitability of [Tawhid as law of Unity of Knowledge ↔ Conscious continuum ↔ moral continuum].

1.1 Regarding the Theory of Moral Singularity in Economics and Social Science

The economic scientific problem of exogenous disengagement between moral-material inclusiveness, consciousness, and the algorithmic culture of artificial intelligence. Frequent disorders in the global financial markets and the instability of

[15] Thomas, David Wayne. "Gödel's Theorem and Postmodern Theory." *PMLA/Publications of the Modern Language Association of America* 110, no. 2 (March 1, 1995): 248–61. https://doi.org/10.2307/462914.

[16] the Prophet (ﷺ) said, "Allah said, "I have prepared for My righteous slaves (such excellent things) as no eye has ever seen, nor an ear has ever heard nor a human heart can ever think of.' "

major banks in the United States of America and Europe have recently marked the uncertainties of the global financial world without an accepted strategy for stabilization. Islamic economics and finance, under their Shari'ah-compliant propositions and activities, such as Islamic financial products and futuristic financial prescriptions, have failed to flag a new financial architecture. Consequently, when we enter the algorithmic age of artificial intelligence and financial innovation, the field of Islamic economics and finance has been corrupted by the models, arguments, and institutional product prescriptions of its genre by borrowing both the theory and application of mainstream economics, finance, and their institutional framework.

The most disabling consequence of the mainstream theory of economics and finance, and its academic and institutional applications, is the complete absence of thought on the imminence and structure of the true Qur'anic way of understanding Islamic law in the universal framework of Tawhid and the inherent consequence of the ontology of unity of knowledge. The results and sustainability of the emergent Qur'anic (Tawhidi) methodological worldview would then be actualized based on the relational complementarities between moral-material inclusiveness, its emanation, and permanence along the path of the conscious continuum. Therefore, the understanding and application of the algorithmic artifacts of learning in the unity of knowledge by artificial intelligence as a purposeful mechanism would be acceptable. This can then formalize the moral-material embedded nature of all events with which economics and finance relate causally in the socio-scientific scheme and order of "everything."[17]

1.2 A Critical Example of Shari'ah Inadequate Explanation of Profit-Maximization and Riba-Rule in Islamic Economics and Finance

We critically examine an edict of Islamic economics and finance in this respect of its borrowing from mainstream ideas regarding singularities of moral-material inclusiveness, consciousness, and the exogenous technological effect of knowledge and learning in the interpretation of Shari'ah rules.[18] The example we take up here is the misguided understanding of the goals of profit maximization and phasing out of interest rates and their replacement by yields raised from the real economy, that is, asset-backed financial transactions. The Qur'an presents all such necessary requirements in its framework of a generalized moral-material endogenous

[17] Barrow, J.D. (1991). "Laws", in his *Theories of Everything, the Quest for Ultimate Explanation*, pp 12-30, Oxford University Press, Oxford, Eng.

[18] Qur'an (14:18) points out the distinction between the qur'anic meaning of shari'ah as the 'way', and Tawhid as the universal law of 'everything': "Then We put you, [O Muhammad], on an ordained way concerning the matter [of religion]; so follow it and do not follow the inclinations of those who do not know."

interrelation guided by consciousness and sustainability in the learning universe of the unity of knowledge. Islamic economics and finance, on the other hand, have followed Shari'ah and fiqh as humanly concocted, remaining completely silent on the universal embedding of the Tawhidi law as a formal explanatory fact.

There is a pure flaw in pursuing and disseminating the goal of profit maximization through all its mainstream socio-scientific subservience without exercising the intellection of the Qur'anic methodological worldview of Tawhid as the law that governs the generalized evolutionary equilibrium system of inter-causality between verities in their diversities. In reference to such a Shari'ah outlook, if profit maximization is the objective, the real economy would legitimize inordinate profit making. The limitless accumulation of profit would result in inflationary pressures due to inordinate capitalist passion and a globally competing attitude for claiming market shares in the asset-based system.

Moral-material inclusiveness and consciousness as endogenous preferences in the framework of learning by and towards Tawhid as the law of the unity of knowledge are all lost by subservience to human-concocted Shari'ah and Fiqhi rules. The overly exogenous imparting of finance and monetary policies to stabilize inflationary and capitalist inequality of the economy in the distorted framework of profit maximization deepens the emergent costly financial enactment in the economy, finance, society, and science. The endogenous prevalence of consciousness and the moral-material inclusiveness of Tawhidi law are subdued. The Islamic (Tawhidi) worldview of the world system is lost.

DISCUSSION

2.1 Introducing Tawhid as Law of the World-System

Contrasting the Qur'anic Tawhidi methodological worldview with non-Tawhidi science, shari'ah, and fiqh. Next, we examine the Shari'ah and Fiqhi flaws in the interpretation of Qur'anic riba (interest) laws for the common good.[19] The superficial and not the essential interpretation of the Qur'anic verses only renders this to a partial and linear concept of the relationship between the cause and effect of entities.[20] The generalized systemic understanding of the inter-causal endogenous relations between entities prevailing along the path of the conscious continuum is lost throughout shari'ah and fiqh. The deeply analytical and overarching methodological worldview

[19] The common good is explained by the abstracto-empirical evaluative analytics of the objective criterion of the wellbeing function pertaining to generalized system problems defined by the concurrent variables and their explanation in the moral-material, conscious embedding in the wellbeing function.

[20] See appendix.

conveyed by the implications of the algorithmic world of conscious and endogenous learning in Tawhidi unity of knowledge is not to be found. Consequently, Qur'anic riba-law ought to be studied as an embedded relation within the gamut of all other entities represented by their symbolic variables and functions. Indeed, riba is a curse that inhibits all parts and entities of the metaverse. Thus, the generalized systemic understanding of riba-law must be studied by the objective criterion of well-being for the common good according to the Tawhidi law.

Examples of the negation of the profit-maximization objective and the presence of riba and its negation in Islamic economics and finance are immersed in the shari'ah acceptance of mainstream socio-scientific theory and its Qur'anic contradictory application. In shari'ah and fiqh, the profit-maximization objective criterion is borrowed from the bosom of mainstream economic theory, and thereby, its consequential analytical and policy-theoretic assumptions and results. In this regard, the interest rate is accepted in the intertemporal valuation of neoclassical economics to address the material sustainability phenomenon in mainstream economics and finance.

As a result of deeper critical thinking on riba-free asset valuation intertemporally, Shari' ah and fiqh have failed to provide any derived asset-valuation rule arising from Qur'anic Tawhidi law. Consequently, all Islamic financial product evaluations, such as murabaha, sukuk, ijara, and secondary financing instruments, are inextricably debt instruments. In the intertemporal valuation concept borrowed by shari'ah and fiqh, the underlying asset valuation and econometric models are unable to incorporate moral-material inclusiveness in the conscious continuum of the learning world system of complementary diversities. The resulting potential of algorithmic innovations and sustainable futures remains unanswered. Shari'ah and fiqh have thus failed to provide Qur'ānic methodological formalism pertaining to "everything" in respect of evolutionary learning by the unity of knowledge across the inter-temporality of the conscious continuum.

2.2 Towards Deriving the Tawhidi Methodology of "Everything"

Tawhidi methodological derivation of the nature of evaluation along the conscious continuum: the well-being objective criterion for the common good of the pervasively complementary learning universe derived from the Tawhidi law of unity of knowledge and the world system.[21] The derived Qur'anic methodological worldview of Tawhid as law presents its richest formalism in terms of evaluating the Wellbeing

[21] Choudhury, M.A. (2019). *The Tawhidi Methodological Worldview, a Transdisciplinary Study of Islamic Economics*, Springer Nature.

Criterion. This objective criterion evaluates the degree of complementarities between all entities, thus representing evolutionary learning through the ontology of the unity of knowledge premised in Tawhid as law. This creative methodological worldview supplants the shari'ah and fiqhi models, assumptions, and rationalistic abstracto-empirical orientation that has been imitated by the mistaken Islamic representation in all segments of the socio-scientific order.

2.3 The Substantive Objective Criterion of Wellbeing in "Everything"

Analytical derivation in formulating the well-being objective criterion, with reference to the theory underlying the conscious continuum and moral singularity, within the specialized regime of AI in the realms of society and science.[22] We formalize this section corresponding to the consequence of Wellbeing Objective in the theory of conscious continuum in all socio-scientific events as follows.

Ω: Primal ontological premise (Tawhid as law in the Qur'an: complete and perfect knowledge[23]*)*

"Su": Sunnah as mapping Tawhidi law to life.

"θ*": innate consciousness by (Ω,Su).

"θ": parameter denoting knowledge derived from [((Ω,Su),θ*)]. This symbol also denotes the evaluated parameterized well-being as the degree(s) of complementarity between the good things in life while avoiding the forbidden ones.

X (θ) denotes the set of all complementary variables embedded in the unity of knowledge, comprising moral-material inclusiveness and consciously induced technology such as AI.

t (θ): knowledge-induced intertemporal conscious continuum gained by repetition of the learning processes. The end of every process denotes the completion of a level of actualized consciousness as derived in the Wellbeing Objective Criterion signified by the non-linear and complex approximation, "θ".

[22] The derivation of logically formal model from the Tawhidi ontological foundations proves that the resulting socio-scientific worldview for 'everything' lies in the emergent domain of mesoscience. A unique and universal system of the derived model, analytical approach, inferences, and sustained continuity applies to all of science, economics, and society. Yet the underlying problems of the transdisciplinary nature are recognized in the model and holism of the Tawhidi genre and its mesoscience treatment. See Choudhury, M.A. (2020). Islamic Economics as Mesoscience, SpringerNature.

[23] (Qur'an 19:65): "Lord of Heavens and Earth and whatever is between them – so worship Him and have patience for His worship. Do you know of any similarity to Him?"

Ontology Of *Tawhidi* Law | Tawhidi Epistemology | Formalism & construction of Wellbeing | Tawhidi learning process(es) Phenomenology→ (Consciousness) | (1)

Knowledge-induced by "θ" ("everything")

↓ ↓ ↓ ↓ recall (Ω,Su); conscious ↓learning

(Ω,Su) →{(θ*consciousness)→ {θ}→{X (θ), t (θ)} continuum (processes)

↓ {θ,X(θ); t (θ}→Eval.W(X (θ); t (θ)) [conceptual wellbeing, *maslaha*]

subject to circular causation (f's) (*qur'anic* pairing[24]): $X_i(\theta) = f_i(X_j(\theta),\theta)$; $(i \neq j) = 1, 2 \ldots n$

} (system)

θ = F (X (θ); t (θ)) [ordinal non-linear} (system) polynomial}evaluation of knowledge parameter]

2.4 Moral (S)-Material (M) -- Complementarity (Universal Pairing) as Unity of Knowledge

The Islamic positivistic impact of AI and technology (T(AI)) along conscious continuum: Investigating intertemporal profit-function and riba-rule derived from the wellbeing objective according to the Tawhidi law formalized in expression (1)

In reference to expression (1), the knowledge-induced vector of variables in respect of the epistemic derivation by [θ ← θ* ← (Ω,Su)] is denoted by (X (θ) = π(θ), (r/i) (θ), T (θ); t (θ)). π(θ) denotes profits. (r/i) denotes real yield relative to the real rate of interest "i". T (θ) denotes technology as of the case of AI in conscious framework by the moral-material embedding by knowledge-consciousness "θ". The moral-material composition is explained by θ-induction. t (θ) denotes intertemporal time along the path of conscious continuum.

In reference to the generalized system model of expression (1), the endogenous inter-causal relations of the variables, explaining inter-causal evolutionary learning by "θ", are given by the equations:

$\log(\pi(\theta)) = A_1 + a_1(\theta)*\log(r/i)(\theta) + a_2(\theta)*\log(T(\theta))$ at time t (θ).

$\log((r/i)(\theta)) = B_1 + b_1(\theta)*\log(\pi)(\theta) + b_2(\theta)*\log(T(\theta))$ at time t (θ).

$\log(T(\theta)) = C_1 + c_1(\theta)*\log(\pi)(\theta) + c_2(\theta)*\log((r/i)(\theta))$ at time t (θ).

$\log(\theta) = D_1 + d_1(\theta)*\log(\pi)(\theta) + d_2(\theta)*\log((r/i)(\theta)) + d_3*\log(T(\theta))$ at time t (θ).

These equations are continuously simulated over θ-values denoting embedded consciousness signifying inter-variables complementarities. Therefore, with the simulated circular-causation relations between variables, the simulated Wellbeing Function is denoted by,

$\log(\theta) = D_1 + d^{\wedge}{}_1(\theta)*\log(\pi)(\theta)^{\wedge} + d^{\wedge}{}_2(\theta)*\log((r/i)(\theta))^{\wedge} + d^{\wedge}{}_3(\theta)*\log(T(\theta))^{\wedge}$ at time t (θ).

The simulated values over the intertemporal evaluation of the Wellbeing Function map the evolutionary learning conscious continuum. Hence, we note an illustration of Tawhidi-based modeling of moral-material embedding by inter-causality of the complementary variables along the conscious continuum path of Tawhidi unity of knowledge. Intertemporal profit maximization and valuation of asset-yields under the present mainstream outlook of Islamic economics and finance are eschewed.

The dynamics of circular causation between the variables of the wellbeing function is the empirical way of summarizing many properties of the relationship of the inter-causal mapping: [Tawhidi unity of knowledge ↔ Conscious continuum ↔ Moral materiality]. In this, all mapping variables, entities, and relations ("everything") are induced by the ontological derivation of knowledge, denoted by {θ∈(Ω,Su)}. The extent of moral-materiality (complementarities) relations explains the generalized evolutionary learning system of circularly endogenous interrelations (GELS). Finally, this totality of circular causation is represented as the degrees of unity of knowledge by GELS applied to investigated issues and problems through the objective criterion of the well-being function. Diagram 1, connected to Diagram 2 in Figure 1, explains GELS in its entirety.

Diagram 1: Fully Endogenous Circular Causation in GELS

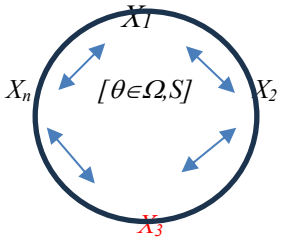

Diagram 2: IIE dynamics of GELS in simulating the wellbeing function.

Diagram 1 is connected to Diagram 2 in Figure 2.

Diagram 2: The principle of universal inter-systemic complementarities

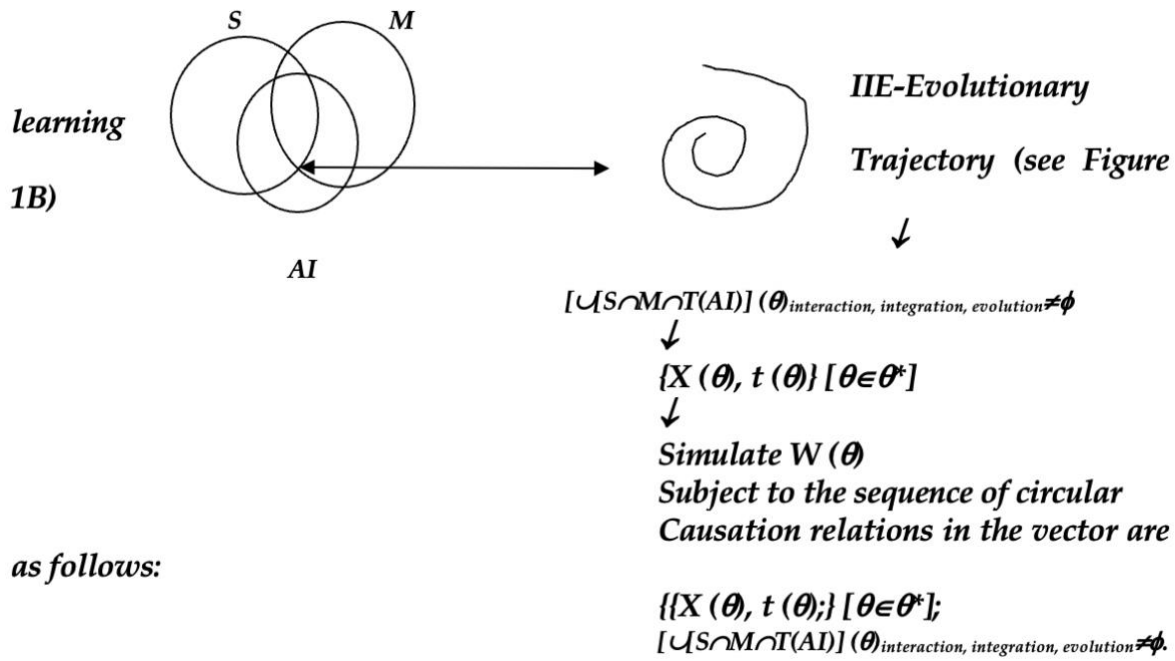

Figure 2: Convergence between annulment of moral singularity by means of unity of knowledge by universal complementarities in {{X (θ), t (θ);} [θ∈θ*]; [∪[S∩M∩T(AI)] (θ)interaction, integration, evolution≠ϕ.

2.6 A Few Examples Contrasting the Tawhidi Theory and Application to Non-Tawhidi Socio-Scientific Thought

2.6.1 Fintech

Fintech, along with its recent technological entries, such as Bitcoin, cryptocurrency, and online credit cards, are mechanisms to optimize the flow of financial resources for customers and major shareholders in the financial world.[24] The sheer financial transaction and profit-optimizing objective of such mechanisms, despite the implied consequence in Islamic transactions in real asset-holding by means of Islamic financial instruments, do not make Fintech an Islamic development item of the holistic goal of attaining sustainable Islamic technological change in Islamic development.[25] In contrast, the bare market-driven risky undertaking by the marginal clientele, who are usually risk-taking by their preferences to gain market returns quickly, can cause

[24] Allen, Franklin, Julapa Jagtiani, and Xian Gu. "A Survey of Fintech Research and Policy Discussion." federal reserve bank of philadelphia, June 1, 2020. https://doi.org/10.21799/frbp.wp.2020.21.

[25] Chong, Felicia Hui Ling. "Enhancing Trust through Digital Islamic Finance and Blockchain Technology." *Qualitative Research in Financial Markets* 13, no. 3 (April 11, 2021): 328–41. https://doi.org/10.1108/qrfm-05-2020-0076.

uncertainties (risk-taking behavior). This type of risk-taking preference can cause a bubble burst in the fintech industry.[26]

Fintech also rides the crest and trough of the business cycle, where the urge to gamble in the future is most intense, and thereby the risk-taking is deepest. On the other hand, the smoothing of the business cycle caused by declining unit risk in larger shareholdings (stake holdings) and effective risk and production diversification in the real economy may enhance the role of fintech in financial resource mobilization into real assets.[27] This approach can be an actualization of the Islamic mode of financing, provided that moral-material embedding is observed. This test of Fintech can be proven by empirically evaluating the Fintech-related well-being function, subject to the system of circular causation relations.

2.6.2 AI and System and Cybernetic Field: Neuro-Cybernetic

Just as there are neurons that drive the plethora of interactions in Quantum Physics, which also share the epistemic grounding of the mind of AI. That is, the philosophy of AI is grounded in the similarity and causality of interactive relations between neuron-like particles and as fundamental particles of theoretical physics that generate human-like cosmic and material minds. However, the failure of such a human-like ascribable mind and consciousness, thus knowledge and behavior to the entire cosmic world-system fully eradicates the moral centricity of reality.[28] Thus, the moral-materiality complementarity of the conscious universal order remains perfectly absent in all critical realism. Can such a machine-human construct of the mind be completed by the most subtle order of science? The incompleteness of all socio-scientific systems in the existing AI and system and neuro-cybernetic framework causes moral singularity. The singular gap is precise that epistemic gap, which we have referred to as the indispensable mind and behavioural worldview, posited as {[Unity of Knowledge ↔ Conscious Continuum ↔ Moral Singularity].

Therefore, the absence of the possibility for Tawhidi-like belief and the functioning of the unity of knowledge, leading to the sustainability of consciousness, rejects the socio-scientific holism of moral-materiality complementarity. This missing

[26] Chen, Linsheng, Jianli Bai, Jiahui Chen, Zhengrong Cheng, and Shiwei Xu. "Financial Literacy, Fintech, and Risky Financial Investment in Urban Households—An Analysis Based on CHFS Data." *Mathematics* 12, no. 21 (October 30, 2024): 3393. https://doi.org/10.3390/math12213393.

[27] Varma, Parminder, Kiran Sood, Shivinder Nijjer, Ramona Rupeika-Apoga, and Simon Grima. "Thematic Analysis of Financial Technology (Fintech) Influence on the Banking Industry." *Risks* 10, no. 10 (September 20, 2022): 186. https://doi.org/10.3390/risks10100186.

[28] Ziemke, Tom. "Understanding Social Robots: Attribution of Intentional Agency to Artificial and Biological Bodies." *Artificial Life* 29, no. 3 (August 1, 2023): 351–66. https://doi.org/10.1162/artl_a_00404.

epistemic belief by which, $(d/d\theta)[\cup^{interaction}[(a\ priori)\cap^{integration}(a\ posteriori)] \neq \phi, > 0$, is to be, and can be, mapped in and by the cognitive and behavioural worldview of the inter-causal relationship ($\leftrightarrow$): [Unity of Knowledge $\leftrightarrow$ Conscious Continuum $\leftrightarrow$ Moral Singularity]. This is the permanence of the Tawhidi world-system as the true reality.

CONCLUSSION

The central abstracto-empirical divide between the Qur'anic methodological worldview in the sciences and that of mainstream ones and its imitation in shari'ah and fiqh caused by human concoction remain permanent. This is due to the methodological inability of the latter fields to embed the central theme of moral and material integration with socio-scientific inquiry, comprising the fullness of entities between heaven and earth. The result is to disregard moral inclusiveness despite the advancement of science and its imitation in the non-Tawhidi world system by methodological analytics and applications. Thus, the major issues of diverse metaverses remain unresolved. Among these, the understanding of objectivity, consciousness, and the formalism of algorithmic advancement along the sustainable path of conscious continuum is important, which is fully explained by the primal ontology of unity of knowledge.

This intellectual impairment exists today in the fields of Islamic economics and finance. The same gap is evident in the socio-scientific field, with which the socio-economic order is embedded by complementarities in the light of the Tawhidi methodology of unity of knowledge governing "everything." To incite the methodological worldview of the moral-material inclusiveness as an inextricable nature of socio-scientific inquiry, this paper has placed the role of the Qur'anic methodological worldview of unity of knowledge to address the pervasively complementary world-system of "everything." AI is a profound example of "everything" in the algorithmic genre. In respect of the universality of socio-scientific capability, it can be formalized by the consciousness of Tawhid as law.

The study in this paper is introductory. Without the fullness of socio-scientific objectivity, the true potential of Islamic economics, finance, and its scientific intellection cannot be realized. This challenging new financial architecture cannot be uncovered in the post-modern algorithmic age, wherein lies the emergence of artificial intelligence in the reign of financial innovation and the socio-scientific episteme, contrary to the Tawhidi methodological worldview. The derived logical formalism of the Tawhidi methodological worldview in configuring both the Islamic socio-scientific intellectual architecture and the emergent age of AI and algorithmic innovation is introduced in this paper as the Great Transformation of conscious

historical holism. Its most important and subtle originality is premised on the brevity of language, (S∩M)[θ⊆θ*⊂ Tawhid as Law of "Everything" between the heavens and earth]. The symbols are earlier defined, and the formalism is derived in reference to Tawhid as the Qur'anic law transmitted by the sunnah.

DISCLOSURE

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Declaration of Generative AI in Scientific Writing

We did not use any generative AI, chat GPT in this study.

Author Bionote

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