

Methodological Questions Relating To A Cognitive Study Of Business, Economics, And Econometrics

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Received: March 11, 2026; **Accepted:** March 18, 2026; **Published:** March 26, 2026

ABSTRACT

Little do students of business, economics, and econometrics are challenged to reflect upon the methodological issues of these fields to query upon the unified nature of coexistence between them. Consequent to this absent intellection among researchers, students and academics, the emergent dimensions of these fields failed to understand the integrating inter-causality of relations between these disciplines. Wider perspective of such questions ensues with a greater sway of the entire societal and scientific domains of deepening philosophical and ethical studies.

This brief paper introduces a subtle quest for the methodology, often referred to as meso-science. It establishes a unique approach to answer all integrated questions and problems of diverse domains of inquiry. Such a methodology will be invoked to point out the cognitive nature of the unified socio-scientific order with the exemplar of business, economics, and econometrics.

This paper will thus, introduce an inquiry in the following areas. These can be further widened by a unique methodological quest of meso-science. In this methodological quest, the paper will substantiate on the differentiating nature of the given fields, as it exists in the present meaning of disciplinary specialization. It will then derive an alternative more cogent methodological formalism premised on epistemic foundations of relevant intellection. The contrasting cognitive perspectives between the existing and the critical methodological nature of the disciplines will thus be formalized.

An example will be provided to bring out the subtleties of the cognitive reformulations. The emergent unique methodology of the unified disciplines, as in meso-scientific methodology, will be established in the feature of general system study.

Keywords: Methodology, Epistemics, Application Possibility, Islamic Mesoscience, Mainstream Socio-Scientific Methodology

An ardent student of business studies takes at least some courses in Microeconomics and Macroeconomics. Whereas, a student of economics is not always required to take courses in Business. Consequently, in view of understanding the methodological interrelationship that Economics establishes with Business and vice-a-versa, remains unknown. The further result of this missing methodological understanding is felt in the emptiness of the intellection concerning the social order, institutionalism policy making, and critical cognition devoid of the moral and ethical integration of the market system in society at large [1-3]. Finally, the methodological formalism of the resulting differentiated specializations of the disciplines, characterize the empirical methods employed in them. There perpetuate the same partitioned and vacant issues concerning moral and ethical

essentials. The issues we thus point out in this paper comprise moral, ethical, and their perceived extraneous issues.

Examples of Moral and Ethical Gap in the Outlook of Business, Economics, and Econometrics

Awareness of Human Ecology as an Ethical Factor

An example of the latter kind of socio-scientific issue we have come to face seriously in all of socio-economic reasoning is that of climate change comprising sustainability (UNDP, SDGs Report), and the full domain of human ecology. How does this example reflect the dissociative gap between the specialized disciplines, that remains permanently oblivious of the moral, ethical, and social constructs? [4].

Starting from the inhibitive craving for profit-maximization as the objective goal of agents in the business and economic domains, the ethical concern for sustenance of human ecology

and the coexistence of life with its environment, remains absent in the underlying scientific and social empiricism. Markets as systems of exchange and exchangeable remains untouched by the ethics of human ecological concern [5]. On the side of the business world, the sole goal of profit-maximization by skills of marketing and creativity of discovery and artefactual design, intensifies the independence of moral, ethical, sustainability values from the overwhelming pursuit of the market process. Such a cognition of independence of inter-causal relationship of sustainability and ethical value of human ecology feeds into the ethically-benign methods of econometrics. The policies that ensue from the analyses of econometric models are likewise based on recommending by algorithmic explanations of analytical results that perpetuate ethically insensitive business, economic, scientific, and social worldviews [6].

The Problem of Epistemic Fallacy in Prevalent Socio-Scientific Reasoning

The emergent scientific algorithms of the morally and ethically benign structure of the core of socio-scientific reasoning has a widest consequence in epistemological foundation of analytical methodology. The absence of this core scientific origin causes a rupture in scientific reasoning as a whole. The analytics of business, economics, and the empirical framework of econometrics are embraced by the same scientific incompleteness. In its widest context, Einstein quoted in referred to a so-called claim of scientific reasoning without reference to epistemology as being muddle-headed [7]. Bhaskar referred to this problem of epistemic gap in all of science today as epistemic fallacy of critical realism [8].

The Place of Business, Economics, Econometrics in Epistemic Fallacy

We explain the problem of epistemic fallacy in the following way concerning the so-called claim of business, economics, and econometric empiricism as sheer scientific intellection [9]. Alfred North Whitehead argued with Bertrand Russell on what he perceived to be the true structure of all entity-wide relations spanning the universe [10]. Russell argued in favor of the competing characterization of individuated differentiated beings belonging to their distinctive fields of specialization. He claimed that, the individuated entities launch their natural propensity to compete and conflict. This attribute of competition is also that of methodological individualism as property that governs all of profit-maximization behaviors of the entities of the domain of business, economics, and econometrics. Contrarily, Whitehead perceived of the universe of all entities to be interactively, that is relationally integrated with each other as learning organisms. Thereby, the nature of the living and learning universe is made up of complementary pairs by way of organic inter-causal relations between the embodying entities. Whitehead wrote on the final objective of science: Science weaves the endless pairing entities by relationalism of complementarity and coexistence. Indeed, this principle belies the universe explained by complex system of learning. This is a symbolized universe of mathematical fineness. Regarding such a super-structure of the pairing and organically learning of the conscious universe was referred to by Paul Dirac as the expression by the most elegant equation of creation.

The existing reasoning of relational independence by specialization devoid of the moral and ethical bond reflects the

structure of Russell’s competing and differentiated universe. This structure fails in the morally and ethically sensitive complementary universe of inter-causal relations derived mathematically by [10]. We can formalize these two opposing pictures of world-systems—objective of profit-maximization in the case of methodological individualism and the objective of simulating wellbeing by the moral and ethical worldview of inter-causal learning complementarity by the following arguments persisting in all of socio-scientific studies today, to the pitiful deprivation of wellbeing as the objective criterion to build critical realism upon it.

Figure 1 shows that, with the deepening of methodological individualism according to the conflict and competition orientation of decision-making behaviors in Business, Economics, and Econometrics, the three corresponding sets separate away. The moral and ethical as values disappear.

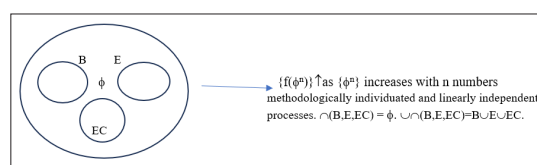


Figure 1: Methodological Individualism in Mainstream Socio-Scientific Thought

‘ ϕ ’ denotes nullity of paired complementary relations between B, E, EC caused by the deepening and expanding domain of methodological individualism due to the disappearance of moral and ethical systemic (endogenous) values (Choudhury, 2024) in $\{B,E,EC\}$.

If $f(\phi^n)$ is a homogeneous function of ‘ ϕ^n ’. Then, on linear additive basis as the germane property of methodological individualism between entities contained in $\{B,E,EC\}$, $f(\phi^n) = \phi^n$.

Contrary to Figure 1 representing the consequence of methodological individualism in the presence of deepening and expanding moral and ethical benignity, the structure of thought under epistemic fallacy of the modern world-system is reformed by the narrative of the paired universe as a normative worldview. Yet the emergent worldview in its methodological rigor is a positivistic one by its own algorithmic and practical configuration. The world-system and its algorithmic thought are cast in the complementarity episteme of normative-positive inter-relational unification to qualify the epistemic structure of reality. The normative-positive existence of the paired complementary world-system of coexistence between entities, causes B, E, EC and its various detailed verities, to be fully structured by the principle of epistemic correctness into a consciously continuous universe of unity of knowledge endowed by the resurgence of moral and ethical values in their evolutionary learning nature.

Epistemic correctness that replaces epistemic fallacy in its normative-positivistic methodological world-system ethicizes the B, C, EC domains by this common factor. The meaning of unity of knowledge born out of the realism of conscious continuum (Choudhury, 2024) is conveyed in this learning structure of paired complementarity by inter-causal relations between all entities comprising the generality and details of

the world-system. Consequently, the interactively integrated evolutionary domain of $\{B,C,EC\}[\phi^n]$ is either replaced or reformed progressively by and towards the heightened levels of complementary inter-causality of unity of knowledge as the conscious and evolutionary principle of learning.

We now denote the reformed and evolutionary learning domain of Figure 1 induced by the principle of unity of knowledge by, $\cup \text{Inteaction} \cap \text{Integration} \{B,E,EC\}[\theta(\varepsilon)] = f(X(\theta))$; $df(X(\theta(\varepsilon)))/d\theta(\varepsilon) > 0$. $\theta \in \{\theta(\varepsilon)\}$ denotes knowledge-flow derived from the verity of unity of knowledge determined by the primal existence of consciousness denoted by $\{\mathcal{E}\}$. 'E' is therefore, the first and primal origin of epistemic correctness. Its correct determination dispels all of epistemic fallacy among entities under study, like $\{B,E,EC\}$. It is foundationally most important to correctly determine the epistemic origin of $\{\mathcal{E}\}$, and thereby derive the formalism for simulating possible solutions of the studies at hand.

The principle of pervasive unity of knowledge is formally defined by the following functionality: $\cup \text{Inteaction} \cap \text{Integration} \{B,E,EC\}[\theta(\varepsilon)] = f(X(\theta))$; $df(X(\theta(\varepsilon)))/d\theta(\varepsilon) > 0$. $\theta \in \{\theta(\varepsilon)\}$. This principle yields the structure of inter-causal relations between the selected entities with moral and ethical values. The derived inter-causal relations are thereby of the complementary form between paired sets of the selected entities. Such inter-causal relations between the variables of $\{B,E,EC\}[\theta \in \theta(\varepsilon)]$ are determined endogenously. That is by the automatic systemic occurrence of circular inter-causal relations between the variables of the vector, $\{B,E,EC\}[\theta]$, by the primal enforcement of moral and ethical epistemic origin of consciousness as follows:

$\cup \text{Inteaction} \cap \text{Integration} \{B,E,EC\}[\theta(\varepsilon)] = f(X(\theta))$; $df(X(\theta(\varepsilon)))/d\theta(\varepsilon) > 0$. $X(\theta) = \{B,E,EC\}[\theta]$, $\theta \in \{\theta(\varepsilon)\}$. $B(\theta) = f1(E,EC)[\theta]$; $E(\theta) = f2(B,EC)[\theta]$; $EC(\theta) = f3(B,E)[\theta]$; as circular causal inter-relations.

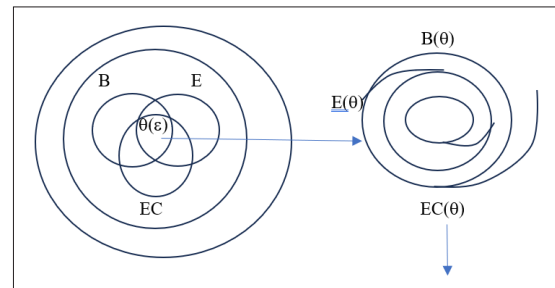
Polynomial in θ -variable, linearly approximated to $\theta = W(X(\theta))$; $df(X(\theta(\varepsilon)))/d\theta(\varepsilon) > 0$. This expression is the objective criterion of the paired complementary universe of entities with particularity, as in the case of $X(\theta) = \{B,E,EC\}[\theta]$, $\theta \in \{\theta(\varepsilon)\}$; $\theta^n \alpha (1/\phi)^n$, $n=1,2,\dots$. The law of unity of knowledge in avoidance of the moral and ethically benign choices prevails. Such a property conveys the oppositeness between Russell and Whitehead universal structures, as pointed out above.

Diagrammatic Representation of the Morally Conscious World-System According to the Law of Unity of Knowledge of the Paired Complementary Universe Exemplified by $\{B,E,EC\}[\theta \in \theta(\varepsilon)]$

All symbols have been defined. The derivation of the generalized system of the sanguine human world-system is now ready to embark within its epistemic worldview endlessly contrary to the epistemic fallacy of rationalism regenerating methodological individualism in universal generalization and its particulars. Rationalism here means the varied perceptions of foundational beliefs that are randomly acquired and activated upon the sole basis of human preferences based on divergent patterns of rational behavior. The preferences premised on rationality axiom 'R' of mainstream socio-scientific investigations are

denoted by the set, $\{\rho(\phi(R))\} \sim \{\phi(R)\}$ on a homogeneous scale of one-to-one transformation of preferences to epistemic origin of R. The origin of epistemic fallacy in the absence of moral and ethical functions caused by the construct of methodological individualism expressed in the form of linearly independent entities is denoted by $\{R\}$ at the core of entire mainstream socio-scientific intellection.

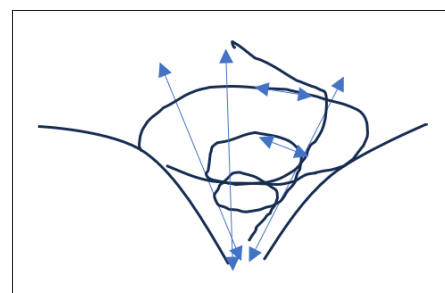
The field of $\{B,E,EC\}[\phi \in \phi(R)]$ by generality and its particular constituents is axiomatically characterized by rational choice theory, transition of preferences of choices; constrained maximization of its own forms of 'objective functions'; competition; and full-information in consequent rational choices. Such axioms of socio-economic rationality as of methodological individualism and independence between the entities annul the possibility of continuous regeneration of learning across evolutionary processes of knowledge in conscious continuum. Figure 2 now gives a spiritually sensitive reconstruction of Figure 1.



Cross-sectional depiction of evolutionary circular causation inter-variable relations denoting endogenous learning Property of pairing.

$\cup \text{Inteaction} \cap \text{Integration} \{B,E,EC\}[\theta(\varepsilon)] = f(X(\theta))$; $df(X(\theta(\varepsilon)))/d\theta(\varepsilon) > 0$. $X(\theta) = \{B,E,EC\}[\theta]$, $\theta \in \{\theta(\varepsilon)\}$. Circular causation inter-relations between $X(\theta)$ -variables: $B(\theta) = f1(E,EC)[\theta]$; $E(\theta) = f2(B,EC)[\theta]$; $EC(\theta) = f3(B,E)[\theta]$ Objective criterion: Contrary to maximization goal of all socio-scientific problems, the consciously paired learning universe is premised on the formalism of generalized system simulation of the wellbeing function, $\theta = W(X(\theta))$; $df(X(\theta(\varepsilon)))/d\theta(\varepsilon) > 0$ Subject to the circular causation relations, $B(\theta) = f1(E, EC)[\theta]$; $E(\theta) = f2(B, EC)[\theta]$; $EC(\theta) = f3(B,E)[\theta]$. including their component variables and complex non-linearity of the functions denoted by f's(.)

A non-Cartesian systemic evolution of learning processes in unity of knowledge causing complementarity by inter-causal linkages between domains and their entities evolutionary learning trajectories cross-sectional view of evolutionary learning by circular causation.



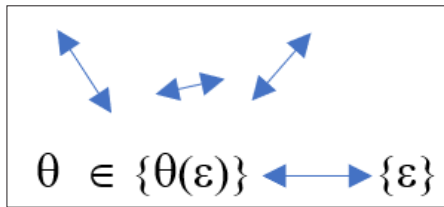


Diagram: A Non-Cartesian Form of Evolutionary Learning across Cross-Sectional Domains

Data for the variables and parameters are tabulated by a mix of observed and surveyed data. These can further arise from participatory discourse generated by the property of interaction leading to integration leading to evolutionary conscious learning across the domain of conscious continuum.

Primacy of the Consciousness as Origin of Knowledge in Morally Transformative World-System

The origination of $\{\epsilon\}$ to generate knowledge along the historical trajectories of knowledge-induced world-system encapsulated in the expression, $\{X(\theta \in \theta(3)) \leftrightarrow simulation\ of\ W(X(\theta))\}$, is essential to understand the role of consciousness and its epistemic origin. The most important analytical feature that distinguishes epistemic correctness from epistemic fallacy is the presence of moral-material complementarity and both normativism-positivism in the model of epistemic correctness and its entirety governed by the law of unity of knowledge. This latter case is analytical feature is fully absent in the model of epistemic fallacy and its entirety. The formal expressions of this most significant differentiation between the two opposing worldviews is as follows:

The differentiating origins have been identified as the moral vacuity of methodological individualism and dissociative independence between entities in the concept of epistemic fallacy. Contrarily, there is the opposite distinction of epistemic correctness. in it the framework survives the universal meta-systemic transformation and formalism sustained by unity of knowledge as law explained by the complementary relations of circular causation in the complementary meta-universe of 'everything'. The differing epistemic origins establish the complete structures of the respectively induced world-systems in their totality, as follows:

$\{X(\theta \in \theta(\epsilon)): (Xmor, Xmat)(\theta \in \theta(\epsilon)) \leftrightarrow simulation\ of\ W(Xmor, Xmat)(\theta)\}$, Subject to the endogenous circular causation relations between $\{Xmor, Xmat\}(\theta)$. $\{Xmor(\theta)\}$ denoting the vector of values, is empirically evaluated by surveys yielding numerical weights to questionnaires. These numerical weights form the data for the wellbeing function of moral vector, $W(Xmor(\theta))$.

Likewise, the secondary data for $\{Xmat(\theta)\}$ as tabulated statistical observations, yield its wellbeing function, $W(Xmat(\theta))$.

The total wellbeing function as the inter-connected and endogenous circular causation is given by, $W(Xmor, Xmat)(\theta) = W(Xmor(\theta)) \cdot W(Xmat(\theta))$. The empirical formalism resulting in the simulation of inferences in policy and institutional consequences is the following model:

Sim. $W(Xmor, Xmat)(\theta) = W(Xmor(\theta)) \cdot W(Xmat(\theta)) \leftrightarrow W(\theta) \sim \theta = W(Xmor, Xmat)(\theta)$, as a linear approximation of wellbeing function as the objective criterion of the pairing world-system in defined by the more realistic non-linear polynomial in $\{\theta\}$ -values corresponding to tabulated, $\{Xmor, Xmat\}(\theta)$ -values.

Simulation is carried out in mathematical mode; subject to circular causation relations between variables of entities, $\{Xmor, Xmat\}(\theta)$:

$Xmor(\theta) = f1(Xmat(\theta)); Xmat(\theta) = f2(Xmor(\theta))$; not as inverse functions because of non-linear complexity (non-Cartesian mathematical space).

All expressions acquire non-linear forms implicating complex forms of knowledge-induction by the ontological origin. This primordial initiation is determined by $[\theta \in \theta(\epsilon) \in (\Omega S)]$, as in the foundational epistemic part of Figure 3.

The complete nature of the world-system framed by epistemic correctness of unity of knowledge is ascribed in Figure 3. Note in this continuous normativism-positivism structure of endogenously (systemic) interrelating entities, prevailing along the trajectory of conscious continuum, the following components together form the holistic phenomenology of the unified world-system with its conscious unfolding by the law of unity of knowledge and its ascription in various forms of generalization and particulars. Every one of the recursive circular causation features of interrelations is shown by interconnected circularity of sets and their entities. Such circularity is shown in Figure 2.

The generalized form of $\{X(\theta)\} = \{B, E, EC\}[\theta]$ is multi-disciplinary. This can include both social and scientific variables and moral/ethical ones for specific problems under study. A principal example, perhaps the singular one in the socio-scientific meta-universal research project (SRP), is that of unity of knowledge (Tawhid, monotheism as law, $[\Omega, S]$) according to the Islamic methodological worldview (Choudhury, 2024). The ethical/moral vector of $\{B, E, EC\}[\theta]$ is premised in the law of unity of knowledge, which fully annuls the mainstream (neoclassical) axiom of marginalism between variables of its objective function of profit-maximization. In the scientific field, the axiom of marginalism is represented by Darwinism. Contrarily, the Tawhidi objective criterion is the wellbeing function as it is derived and simulated in the expression of Figure 3

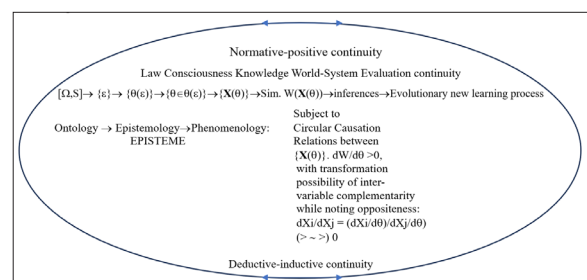
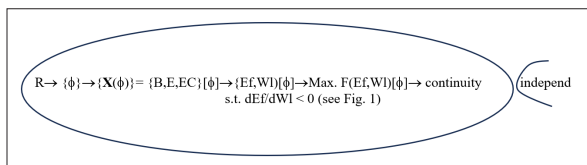


Figure 3: Epistemic Correctness under the moral-material law of unity of knowledge Inducing Continuity of the Meta-World-System

Primacy of Rationalism as Origin of Methodological Individualism in a Morally benign World-System

The complete nature of the world-system framed by the rationalist intellection and resulting world-system is explained by Figure 4. The essential structure of methodological individualism arising from the origin of Rationalism is an extension of Figure 1 in respect of linearly independent socio-scientific sets, variables, and their entities. The rationalist worldview from which comes to be derived the axioms of economic rationality, and mainstream objective criterion of methodological individualism and independence between entities, is represented by expression (1):



Rationalism is thereby, a form of epistemic fallacy that rests its mind-set and belief on the individual and competitive behavior of all entities including man and his institutions for the attainment of F-maximization. This can be profit-maximization, utility maximization, welfare maximization and similar goals. Competition contrary to participation through interaction, consensual integration, and evolutionary learning under the law of unity of knowledge is logically annulled. $[\Omega, S]$ that represents the epistemic foundation of these other attributes thereby does not exist. Moral and ethical values in human and entity versed belief are assumed to exist only exogenously to behavioral systems. They are not intrinsically invoked due to the absence of consciousness inducing knowledge and thereby the understanding of the nature of the pervasively paired and actively participative meta-universal system. The episteme of rationalism arose from the intellection of the Eighteenth-Century European Enlightenment. It was introduced into this Occidental belief system in respect of the claimed conflict between a priori reasoning (e.g. moral values) and a posteriori reasoning (material evocation). Deductive reasoning and inductive reasoning cease to be an integral continuity in understanding reality, as is otherwise the case with epistemic sustainability of conscious continuum in all of critical realism in epistemic correction. This topic was explained earlier. How can we delineate the domain of meta-universe as a moral-material nexus by spanning $\{B,E,EC\}[\theta]$ as a socio-scientific diversity?

The effective role of consciousness is absent in the formalism according to rationalism, due to its assumed non-computable nature [11]. While this implication is correct in respect of consciousness as a physical entity, it is contrary to the relational concept of consciousness in reference to its induction of knowledge and the corresponding socio-scientific meta-universe nexus as quiddity. The role of consciousness in the episteme of unity of knowledge (Figure 3) and the world-system is embedded in this ontological primacy as a mathematical algorithm existing in abstraction as a reality. The consequential methodology of Figure 3 is thereby, abstracto-empirical in structure. In this, normative-positive, deductive-inductive recursiveness in the analytical for of organic circularity, there exists the relational sustainability principle of unity of knowledge across conscious continuum. This precept becomes the primordial guidance. It is followed by the discursive projectile of reconstructive

transformation of the socio-scientific belief and action activating winds of change.

Contrasting Instruments of $\{B,E,EC\}[\theta]$ and $\{B,E,EC\}[\phi]$ in Islamic (Tawhidi) and Mainstream Cases, respectively

The financial instruments, in response to the opposing objective functions of these worldviews are their drivers. These make up further details of their respective vectors in accordance to their epistemic bases. The instrumental drivers of $\{B,E,EC\}[\theta]$ are financial interest replaced by participatory instruments of a vast variety; charity of giving and sharing versus maximization greed; stakeholding partnership rather than shareholding; pervasive complementarity between the life-sustaining goods and services; and the formalism of the law of unity of knowledge (Tawhidas monotheistic (Oneness) law) replacing competition and methodological individualism and entity-wise independence as the overall worldview.

One of the most significant examples of relational participatory worldview is the over-arching comprehension of this epistemic precept across the generality and particulars of the meta-universe nexus. On a particular analytical premise, this example applies to the complementary inter-relations between money, finance, the productive real economy in respect of the wellbeing criterion function as explained above in the formalism of $\{B,E,EC\}[\theta]$. By our previous explanation of meta-universe extendibility, other factors of the moral-material category can be included and explained in respect of the formalism of Figure 3.

In the case of $\{B,E,EC\}[\phi]$, the absence of $\{E\}$; and the exogeneity of moral enforcement in this and its extended vector of variables cause absence of circular causation associated with the law of unity of knowledge. Consequently, there cannot be fullness of endogenous relationship, implicating the principle of pervasively participatory complementarities between the vector sets and their various entities. The instruments that cause such dissociation of endogenous relations in the domain of moral and materiality conscious continuum are as follows:

The perpetuation of interest rate or its trade-off likeness in the persistent formula of marginal rate of substitution causes competition and separation between financial and real productive economic functions. Resources injected in the domains of the given vector flow competingly between the financial sector and the real sector, thus causing marginal rate of returns between the two sectors. This goes as disadvantage in attaining simultaneous complementary relations between the two sectors for the attainment of profit-maximization, contrary to wellbeing as a complementary objective criterion between economic efficiency and social-cum-economic justice. Consequently, a comprehensive social contract cannot be established in the absence of a complementary flow of resources between the financial, real productive, and social sectors. Either the complementary relationship by resource flowing between these sectors is a delayed phenomenon, or it can happen continuously, as in the case of $\{\theta\}$ -induction. In this latter case, the role of consciousness and the primacy of the law of unity of knowledge are restored. The moral transformation is annulled otherwise. Banks in the resulting capitalist institutions fail to be social and economic (financial) institutions that ought to promote investments and ethical market transformation, in the sense

as explained above. Capital accumulation in the perpetuity of interest-based financing, contrary to capital development, as in the case of productive and conscious human resource investment, trade, and market process for the increasing wellbeing of the global social order, have proved to be the order of the capitalist world-system forever.

The result of the mainstream way of allocating resources via marginalist competition for capital accumulation underlying the goal of profit-maximization, is at once also deprivation of equitable distribution of resources, opportunities, and ownership by productive participation in the social contract at large. Other consequences follow. These comprise heightened incidence of poverty, failure in diversification of employment along with the productive diversification of the social economy at large. Further disaggregation of such diversifications and its failure on an extensive scale, leads the valuation of the wellbeing objective function in its meso-science form.

Inferences gained from the exogenous nature of EC-empirical forms cause mistaken policy recommendations. For instance, in the macroeconomic neoclassical version of Keynesian general equilibrium theory, there exists no precise policy implication of full-employment level of real output and employment. Consequently, stimulation of monetary and fiscal policies causes inflationary pressures. This result is contrary to the meso-economic aspect of micro-foundations of money and real productivity with decreasing tax rates. In this case, the expansionary monetary policy is complemented by the expansionary aggregate demand curve. The real full-employment and output level are then simultaneously driven along the expansionary trajectory of non-inflationary path of full-employment. The exogenous influence of the two policies as competing ones explain the neoclassical marginalist property of the otherwise complementary nature of endogeneity between the policies in favor of non-inflationary real output, and thereby attaining expansionary full-employment general equilibrium point and higher level of wellbeing, as was explained in the case of pervasive inter-variable participative complementarity.

The Phillips Curve of trade-off between employment and price-stabilization is contrary to the endogenous study of complementary relations between the two goodly socioeconomic effects. The macroeconomic implication of such an adverse trade-off is contradictory to their complementary relationship that enhances the wellbeing objective criterion. The Phillips Curve Hypothesis has thus remained conjectural in most socioeconomic empirical cases (Friedman, 1960). We also note that, the variables of full-employment real output and employment, expansionary monetary and fiscal policies, and price stabilization establish complementary organic relations for the progressive valuation of the wellbeing function as the pertinent objective function. The mainstream objective criteria in their various forms perpetuating trade-offs, are negated.

Many such examples of exogenous variables can be found in mainstream $\{B,E,EC\}[\phi]$. It can therefore be argued that, $\{B,E,EC\}[\theta] \cap \{B,E,EC\}[\phi] = \phi$, in the generalized sense, and in respect of the particular sets, respectively between the two cases. The fundamental cause for this persistent property is due to the sensitivity of events, thereby representative

variables to their knowledge induction by $\{\theta\}$ and without it by the absence of organic embedding of knowledge, $\{\phi\}$. Epistemic evolutionary learning and simulation of wellbeing are caused by $\{\theta\}$. Epistemic fallacy in the extended absence of moral-material complementarity is caused by $\{\phi\}$. Finally, the formalism based on $\{\theta\}$ is able to explain the impossibility of $\{\phi\}$. But the mainstream formalism of the neoclassical optimality genre is unable to explain the evolutionary learning reality of the θ -embedded complementary meta-universe of socio-scientific world-system.

Conclusion

The epistemological question of inadequacy of the entire scientific formalism as an analytical one to study the nature and resolution of socio-scientific problems spanning generality and particulars of meta-universe extensiveness, is terminally lacking of a possibility. This problem of the moral and material isolation in all of the socio-scientific methodology has become the epistemic fallacy of its own making. The correction of this intellectual deficit is necessary to address the meta-universe perspectives of the fullness of human and physical ecological issues. Present socio-scientific methodology is unable to attain this mega-challenge in its existing epistemic fallacy. Thereby, an epistemic correction is required. This is the great impending challenge of the opposing understanding of reality. The challenge of the profound epistemic oppositeness belongs to the differing perspectives of the world-system between the methodological orientations of oneness as a paired, participative, complementary, and thus symbiotic understanding of reality as a meso-scientific, consciousness driven law of unity of knowledge. The opposing perception of the nature of reality is professed by existing mainstream methodology of methodological individualism as methodical marginalism that colors it.

This moral-material epistemic divide between oneness and isolationism, is expounded in this paper by the example of the reformed opposed to the mainstream nature of the intellectual fields of Business, Economics, and Econometrics. The abstracto-empirical formalism of this academic approach is exemplified by invoking the fields of Islamic methodological worldview as an example of the meso-science approach, contrary to the mainstream approach of methodological individualism of mainstream socio-scientific vacuity of the otherwise moral-material possibility of unity of knowledge [12-17].

References

1. Parsons T. *The Structure of Social Actions* (New York, NY: The Free Press of Glencoe/. 1964.
2. North DC. "A theory of institutional change and the economic history of the Western. 1981.
3. Buchanan JM. "The domain of constitutional economics", in *The Collected Works of James M. Buchanan*. 1999. 1: 377-395.
4. Hawley AH. *Human Ecology*, The University of Chicago Press, Chicago, ILL. 1986.
5. Boulding KE. "Economics as a moral science", in F.R. Glabe Ed. *Boulding Collected Papers*.. Association of University Press, Boulder, CO. 1971.
6. Buchanan JM Tullock G. "Individual rationality in social choice", in *The Collected Works of James M. Buchanan*. 1999. 3: 31-42.

7. Bohr N. "Discussion with Einstein on epistemological issues", in H. Folse Ed. *The Philosophy of Neils Bohr: The Framework of Complementarity*, Amsterdam, the Netherlands: North Holland Physics Publications. 1985.
8. Bhaskar R. *Reflections on Meta-Reality, Transcendence, Emancipation, and Everyday Life*, Sage Publications, New Delhi, India. 2002.
9. Blaug M. *Economic Theory in Retrospect*, pp. 30-32, Homewood, IL: Richard D. Irwin. 1968.
10. Whitehead AN. 'Process', in D.R. Griffin and D.W. Sherburne (trans.) *Process and Reality*, pp.208–215, The Free Press, New York, NY. 1978.
11. Staff Writer, *Speciese Universe*. "The Quantum Brain: Explaining Roger Penrose Theory of Consciousness". 2025.
12. Choudhury MA, Muhammad Nazmul Hoque Universiti Teknologi MARA; Nor Balkish Zakaria Universiti Teknologi MARA. "Moral Singularity, Consciousness, and Artificial Intelligence in The Algorithmic Age of Islamic Economics, Finance, Society, and Science. *INVEST* (2:1). 2023.
13. Barrow JD. "Laws", in his *Theories of Everything, the Quest for Ultimate Explanation*, pp 12-30, Oxford University Press, Oxford, Eng. 1991.
14. Boland LA. "On the methodology of economic model building", in his *The Methodology of Economic Model Building*, pp. 39-63, London, Eng: Routledge. 1991.
15. Choudhury MA. *Handbook of Islamic Philosophy of Science: Economics, Society, and Science*. Springer Nature. 2024.
16. World", in his, *Structure and Change in Economic History*, Chapter15, W.W. Norton, New York.
17. Friedman MA. *Program for Monetary Stability*, New York, NY: Fordham University Press. 1960.