

Hypothesis, Paradigm, Framework and Concept Evaluation and Testing Across Space and Time: A Revalidation of our Concepts of “Aeternitism” and “Omnimodism”

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Abstract:- This paper is linked to our papers or our earlier work on neo-centrism, hypothesis formulation, the sociological ninety ten rule, cross-cultural research design, and inductive approaches to hypothesis formulation, all of which have been published by us over the years. Therefore, all the relevant papers are suitably referenced in this paper, and brief summaries and overviews of them provided. This is done in the interests of coherence, internal consistency and clarity, so that readers can understand and comprehend the core concepts easily. To emphasize and to reiterate here, all our papers are interrelated in a continuous chain, none of our papers conflict with each other in any way, and to any degree. We believe that there are no internal contradictions amongst our wide gamut and array of papers that we have been publishing over the years, and no logical fallacies and inconsistencies as well whatsoever. All our papers are therefore interrelated and mutually interdependent in a plethora of different ways; however, this paper offers a fresh perspective and takes the concepts proposed in our earlier papers in an altogether new trajectory. This is done through the means and mechanism of hypothesis, paradigm, framework and concept evaluation and testing across space and time. Likewise, axioms, principles, entities and assumptions, are also evaluated, tested, and revalidated for this purpose. A revalidation of our concepts of “aeternitism” and “omnimodism” is also carried out as a part of this paper. This exercise is done in the interests of better science and better reliabilism; it is also a core component of our “Globalization of science” mission and movement.

I. INTRODUCTION

“The trouble with having an open mind, of course, is that people will insist on coming along and trying to put things in it. Give a man a fire and he's warm for a day, but set fire to him and he's warm for the rest of his life. Some humans would do anything to see if it was possible to do it.” - Terry Pratchett

“Life is about perspective and how you look at something... ultimately, you have to zoom out.” - Whitney Wolfe Herd

“The greatest tragedy for any human being is going through their entire lives believing the only perspective that matters is their own”. - Doug Baldwin

“The broader one's understanding of the human experience, the better solutions we will have.” - Steve Jobs

This paper is linked to our papers or our earlier work on neo-centrism, hypothesis formulation, the sociological ninety ten rule, cross-cultural research design, the theory of paradoxes, and inductive approaches to hypothesis formulation, all of which have been published by us over the years. Our first important paper was “Articulating comprehensive frameworks on socio-cultural change: Perceptions of social and cultural change in contemporary Twenty-first century Anthropology from a ‘Neo-centrist’ perspective”, though we had spoken about the concept of neo-centrism even prior to this. The second paper on this score was “The relevance of Culture and Personality Studies, National Character Studies, Cultural Determinism and Cultural Diffusion in Twenty-first Century Anthropology: As assessment of their compatibility with Symbiotic models of Socio-cultural change” which was published by us in 2018. In a later paper, we had explored diachronic extensions of symbiotic approaches to sociocultural change as well- this paper was published in the year 2023. The basis and the entire meat of this paper is based on our observations on “Cross cultural research design”. Read the paper “Operationalizing cross-cultural research design: Practical, cost-effective, and a minimalistic application of cross-cultural research design to minimize cultural bias in research and reconcile diverse

viewpoints” for this purpose. This paper was published in the early part of 2023.^{1 2 3}

The papers “Aligning theorization and hypothesis-building with cultural and cross-cultural frames of reference: A heuristic aid to better theorization and hypothesis-building” and “Conceptualizing ‘Cultural frames of reference’ and ‘Cross-cultural frames of reference’ for various cultures and societies: Employing these concepts to bring about social and cultural change in different societies” would also make for a very good and a useful read. Also read our papers on Inductive approaches and the sociological ninety ten rule. The names of the papers are “Making the use of inductive approaches, nomothetic theory building and the application of grounded theory widespread in the social sciences: A guide to better research and theorization in the social sciences” and “Unveiling the Sociological Ninety-ten rules for Social Sciences research: Towards better hypothesis formulation in the Social Sciences in the interests of higher quality research and intellectual multi-polarity”. Also read our papers on the certainty uncertainty principle if possible, though these are far less important from the perspective of this paper.^{4 5 6 7}

To emphasize and to reiterate, all our papers are interrelated in a continuous chain, none of our papers conflict with each other in any way. We believe that there are no internal contradictions amongst our wide gamut and array of papers, and no logical fallacies and inconsistencies as well. If indeed there are any, they may be pointed out to the Author. He will willingly, quickly, gladly, and readily respond to all queries. All our papers are therefore interrelated and mutually interdependent in a plethora of different ways, and myriad different ways; however, this paper offers a fresh perspective and takes the concepts proposed in our earlier papers in an altogether new trajectory. This is done through the means and mechanism of hypothesis, paradigm, framework and concept evaluation and testing across space and time. Likewise, axioms, principles, entities and assumptions are also evaluated, tested, and revalidated for this purpose. A revalidation of our concepts of “aeternitism” and “omnimodism” is also carried out as a part of this paper. This

is done in the interests of better science and better reliabilism; it is also a core component of our “Globalization of science” mission and movement, and will, we believe, lead to scientific progress at the speed of light. Also, always read this paper on conjunction with the section on neo-centrism in our earlier aforesaid paper; this will be of great utility and practical help. This is because this effort and endeavour is merely an extension of our earlier work, albeit in meaningful, practical and purposeful directions, and with powerful consequences.⁸

II. A BRIEF RECAPITULATION AND OVERVIEW OF OUR CONCEPTS

We had developed the concept of neocentrism along with the allied concepts of aeternitism and omnimodism in a paper on the symbiotic approach to sociocultural change authored by us way back in the year 2017. This was in a separate section in the aforesaid paper that was dedicated for the purpose. Of course, sciences are typically classified into exact sciences or the hard sciences and the inexact sciences or the soft sciences. The exact sciences of which there are indeed many, are also known as quantitative sciences, or sometimes as exact mathematical sciences. These sciences allow for absolute (or a very or a relatively high degree of) precision in their results; such sciences are usually and typically tied to, or based upon the mathematical sciences. These sciences include mathematics, astronomy, and physics, to cite a few examples. There are of course many more such as anthropometry and craniology. The term “inexact science” is used to refer to any field of scientific inquiry or activity that used controlled scientific method, but does not always yield precise, repeatable, or universally applicable results. Examples of inexact sciences include economics and psychology, besides a couple of more fields forming a part of the social sciences. Needless to say, the methods proposed to be adopted in this paper will impart the inexact sciences with an added layer or reliability with more repeatable and reproducible results. Inexact sciences also typically deal with abstract concepts, probabilistic paradigms and qualitative data, though

¹ Operationalizing cross-cultural research design: Practical, cost-effective, and a minimalistic application of cross-cultural research design to minimize cultural bias in research and reconcile diverse viewpoints IJISRT, April 2023 Sujay Rao Mandavilli

² Aligning theorization and hypothesis-building with cultural and cross-cultural frames of reference: A heuristic aid to better theorization and hypothesis-building Sujay Rao Mandavilli IJISRT June 2024

³ Conceptualizing ‘Cultural Frames of Reference’ and ‘Crosscultural Frames of Reference’ for various cultures and societies: Employing these concepts to bring about social and cultural change in different societies Sujay Rao Mandavilli IJISRT, September 2023

⁴ Unveiling the Sociological Ninety-ten rules for Social Sciences research: Towards better hypothesis formulation in the Social Sciences in the interests of higher quality research and intellectual multi-polarity Sujay Rao Mandavilli Published in IJISRT, February 2023

⁵ Making the use of Inductive approaches, Nomothetic theorybuilding and the application of Grounded theory widespread in the social sciences: A guide to better research and theorization in the social sciences Sujay Rao Mandavilli IJISRT May 2023

⁶ Elucidating the Certainty uncertainty principle for the Social Sciences: Guidelines for hypothesis formulation in the Social Sciences for enhanced objectivity and intellectual multi-polarity Sujay Rao Mandavilli IJISRT, March 2023

⁷ Quashing racism: Presenting the ‘Comprehensive sociocultural persecution complex’ as a logical extension and a practical application of the Certainty uncertainty principle for the social sciences Sujay Rao Mandavilli IJISRT, September 2023

⁸ Paradox identification and paradox resolution in scientific endeavour: Reconciliation of contradictory rulesets in the interests of better theorization and hypothesis-building Sujay Rao Mandavilli IJISRT, January 2024

quantification techniques are sometimes used. The meaning of the term quantification technique has a different meaning in the social sciences than it has in physics, and other sciences, and may use the Likert scale among other techniques. Of course abstract concepts must always be studied and investigated with the attention they deserve. As the famous inventor Nikola Tesla once stated, “The day science begins to study non-physical phenomena, it will make more progress in one decade than in all the previous centuries of its existence”.

Laws or paradigms in virtually every field of the social sciences typically follow statistical laws (as opposed to causal laws that are observed in the natural sciences). In our case, relationships are not generally consistent or invariant, while in the case of natural sciences, they always are. In the case of many or most fields of the inexact sciences, each approach proposed or earmarked to be adopted may consist of its own set of pros and cons, and decision-making and finalization typically involves some amount or quantum of applied perspective and judgment. It also typically involves ratification of validation against context-specific goals and objectives. In case of many or most fields of the inexact sciences, a solution can typically never be proven empirically or beyond the shadow of reasonable doubt. This is why we had proposed the concept and the doctrine of neo-centrism in an earlier paper. Neo-Centrism may also be integrated with the concept of relativism. Relativism refers to the doctrine that truth and knowledge exist only in relation to a particular society culture, intellectual tradition, or historical context, and are therefore not absolute. Relativism also states that concepts must not be studied in isolation, but must be studied, analyzed and evaluated as a part of a much larger and a broader landscape or ecosystem.

This concept was extended by several eminent sociologists to form cultural relativism. Neo-Centrism is also in our view related to the concept of “eternalism”, (this is a metaphysical position and a point of view regarding the existence of time, but may have several additional meanings to boot) whose definition is not entirely in harmony and concordance with our requirements. We had therefore proposed and suitably and beneficially employed the term “aeternitism” which is derived from a Latin term “aeternitas” meaning permanence. The term had already pre-existed at the time of the writing of our earlier aforesaid paper and was used to describe an obscure spiritual practice. (Additionally, there existed a Roman God with the same name and this was associated with the attribute and characteristic of timelessness). “Aeternitism”, by the definition advocated in our previous papers may refer to the application, implementation, interpretation, or enforcement of a certain principle (or a set of allied and interrelated principles) across the boundaries and vagaries of time. Aeternitism is also extremely important because we are living in a multispeed civilization, and different trends may manifest themselves at different points in time; different trends and different scenarios may also ultimately prevail.

The term “vagaries” must be greatly emphasized and stressed, as predictions may often be fraught with uncertainties, and reliability can most often be achieved and accomplished gradually and in stages through the mechanism and employment of exhaustive testing, and evaluation and elimination of alternatives. We had also proposed another allied term by the name of “Omnimodism” which could be taken to be the universal applicability of a certain principle (or a set of allied and interrelated principles) in other words, its applicability across space and time, and quite literally under all circumstances and situations under the sun. This term may be derived from the Latin term “Omnimodous” which means timelessness and is similar to the highly uncommon and scantily used English word “Omnimodous”. The name of our first paper on the symbiotic approach to sociocultural change (“Proactive-interactive-symbiotic approach to long-term cultural change”) was “Articulating comprehensive frameworks on socio-cultural change: Perceptions of social and cultural change in contemporary Twenty-first century Anthropology from a ‘Neo-centrist’ perspective”, and this was published by us in mid 2017. In this paper, we had discussed the tenets of neo-centrism in a section aptly titled “Neo-Centrism (or Centrism) as a philosophy and Neo-Centrism as an agent of social and cultural change” based on some earlier observations in earlier papers, such as the core principles of twenty-first century historiography. Aeternitism and omnimodism are somewhat nebulous concepts given that all future scenarios (or even existing scenarios for that matter) may not be known.

This approach could also we argued be realized based on dialectics, or the reconciliation of contrary perspectives, and the adoption of autodialectics, as postulated by us in another paper. Dialectics has been known since the time of the Ancient Greeks, but has been developed upon by modern scholars such as GWF Hegel. According to this philosophy and this line of reasoning, a reconciliation of a thesis with an antithesis would lead us invariably and inevitably to synthesis. It will also lead to a new order of things, by preserving only what is good and essential. Refer to the works of Heinrich Moritz Chalybaeus for greater clarity. Karl Marx (and Friedrich Engels) also literally used dialectics and dialecticism more or less in a strictly materialist sense. Some other of our papers also dealt with or extended our observations on the symbiotic approach to sociocultural change, and these are suitably referenced and annotated in this paper. The concept of neo-centrism is an important part of our globalization of science movement given that it is based on dialectical approaches and an evaluation of perspectives of individuals drawn from different parts of the world. It is also in synch with an aggressive pursuit of diverse and contradictory evidence. These approaches would therefore help redeem and surmount “frog in the well” constraints. They would also naturally and logically move us to a higher state of understanding, envisage and conceptualize future scenarios, as well as take us closer to an elusive “ideal state”, (or a “paradoxless” state, if we may so call it) definitions of which were proposed by Plato and Aristotle. In sum, they could form an integral, intrinsic and an extremely important component of scientific endeavour. The term “Aufhebung” was widely used by Hegel, and is some sort of

an oxymoron; it means both to preserve and cancel out. This term would come in handy to capture the quintessence of neo-centrism. This also means that aeternitism and omnimodism are not just passive interpretations; they are pragmatic definitions with several dynamic uses.^{9 10 11 12 13 14}

III. CROSS-CULTURAL RESEARCH DESIGN

There are many different direct and attendant benefits of cross-cultural research design. It can not only provide and furnish a platform and a forum for people from marginalized or unvoiced cultures to throw light and focus the spotlight on issues that concern them, but can also improve the quality of science considerably or immeasurably. As it was once rightly pointed out, “Unless the lion learns how to write, history will always glorify the hunter.” How true. Therefore colonialists may have once looked at issues from their own perspective, and their limited lens, and have glossed over issues that did not directly concern them. While the dismantling of colonial power structures began in right earnest in the middle of the twentieth century, most fields of the social sciences have not thrown off their colonial yoke entirely, or shed their colonial baggage completely. Western-centric scholars may have vested interests that prevent them from doing so. That is why we have been at work for over two decades now. Marxist scholars may also have consciously, subconsciously, or unconsciously supported colonial constructs for decades. Reason: dogma and ideology over pragmatism if not plain commonsense. That is also one more reasons why subaltern studies and post-colonial studies were mostly led by oriental and South Asian scholars who wanted to institute post-colonial and post-imperialist points of view in academia. Leading theorists apart from the non-Indian Edward Said were Ranajit Guha, Arjun Appadurai, Sumit Sarkar, Dipesh Chakrabarty, Gayatri Spivak, Partha Chatterjee, Vivek Chibber, Gyanendra Pandey, and others. Some work by these scholars has typically been of substandard quality, though it is now probably improving.

Likewise, feminist studies were launched famously by pioneer women in the west such as Sally Slocum, Michelle Zimbalist Rosaldo, Peggy Golde, Lousie Lamphere, and others, with the stray male thrown in. That is why we have “emic” and “etic” perspectives in the social sciences, both of which are important and both of which are necessary. We had also previously categorized emic and etic perspectives into representative emic or etc, non-representative emic or etic, dominant emic or etic, marginalized emic or etic, etc. (Also, typical, atypical or biased emic or etic) This realization would provide the foundation and *raison d’être* of our approach. Such perspectives are also indeed necessary to provide culture-neutral knowledge. (Berry, 1989; Van de Vijver, 2010) (Cheung, Van de Vijver, & Leong, 2011; Helfrich, 1999) This can however, happen only if cultures are chosen and studied “scientifically” (a term that we would not normally recommend for anyone to use). For further details on how cultures need to be selected for a comprehensive study, refer to our aforesaid paper on cross-cultural research design where we have discussed this issue at depth.^{15 16 17}

➤ Inductive Approaches to Research

The inductive approach or inductive reasoning, is a widely used method in research design, and one that we have wholeheartedly endorsed over the years. Simply and crudely put, it corresponds to a is a method or a line of reasoning that involves drawing general conclusions (by identifying patterns) from a large number specific observations or instances drawn from diverse contexts. It is therefore a bottom-up approach that always moves from specific instances to generalizations. It is therefore an extremely reliable and a rock solid approach that stands people in very good stead at all times. On the down side and the flip side, it is extremely time consuming, laborious, and uneconomical to use and implement in some cases, especially where money or resources are scarce. That is why this is only an ideal, and must be used wherever viable, feasible, and practically possible. The end state of a research design based on this premise is often a hypothesis which is further tested until it

⁹ Enunciating the Core principles of Twenty-first Century Historiography: Some additional extrapolations and inferences from our studies and observations on Historiography Sujay Rao Mandavilli ELK Asia Pacific Journal of Social Science (ISSN: 2394-9392) in Volume 2, Issue 4 July to September 2016

¹⁰ Articulating comprehensive frameworks on socio-cultural change: Perceptions of social and cultural change in contemporary Twenty-first century Anthropology from a ‘Neo-centrist’ perspective Published in ELK Asia Pacific Journal of Social Sciences Volume 3, Number 4 (July 2017 – September 2017) Sujay Rao Mandavilli

¹¹ Attempting Diachronic extensions of symbiotic approaches to socio-cultural change: Developing techniques to assess socio-cultural changes over a period in time Sujay Rao Mandavilli IJISRT, September 2023

¹² The relevance of Culture and Personality Studies, National Character Studies, Cultural Determinism and Cultural Diffusion in Twenty-first Century Anthropology: As assessment of their compatibility with Symbiotic models of

Socio-cultural change ELK Asia Pacific Journal of Social Science Volume 4, Issue 2, 2018 Sujay Rao Mandavilli

¹³ Towards scientific apperception tests for twenty-first century social sciences research: Formulating ‘Structured apperception techniques for socio-cultural change’ in twenty-first century social sciences research Sujay Rao Mandavilli IJISRT June 2023

¹⁴ Popularizing auto-dialectics in scientific endeavour: A potentially productive tool in the interests of better and higher-quality science Sujay Rao Mandavilli IJISRT, June 2024

¹⁵ Creswell, J.W. (2012). Educational research: Planning, conducting, and evaluating quantitative and qualitative research. Upper Saddle River, NJ: Prentice Hall

¹⁶ Robson, C. (1993). Real-world research: A resource for social scientists and practitioner-researchers. Malden: Blackwell Publishing

¹⁷ Wright, Sarah; O'Brien, Bridget C.; Nimmon, Laura; Law, Marcus; Mylopoulos, Maria (2016). "Research Design Considerations". *Journal of Graduate Medical Education*. **8** (1): 97–98

becomes a theory. This approach and technique is contrasted with a deductive approach which is a simpler top down approach that starts with existing hypotheses and refines them further. The latter is also associated with a hypothetico-deductive method. We have discussed these concepts off and on, and there is no need for us to repeat them endlessly.¹⁸

IV. AN OVERVIEW OF THE SOCIOLOGICAL NINETY TEN RULE

We had proposed the sociological ninety ten rule in a paper we had published in the early part of 2023, though we had laid the foundations of this in a paper on anthropological economics that we had published some three years prior in 2020. There are many important characteristics of the sociological ninety-ten rules, which can also be known as, and referred to as the principle of “exceptionism”, and this is that for every observation in the social sciences, there can be one or more statistically significant or insignificant exceptions, each of which can be comprised of sub-exceptions. These may variously be time-bound, location-specific, or a combination of the two. As per our approach and philosophy, exceptions must be identified with a vengeance and with gusto, and sub-hypothesis prepared and drafted wherever necessary. The rule and exception paradigm can therefore always help us cast and formulate better theories and hypotheses, which must be constantly refined and recast as and when new data arises or is discovered with the passage of time. This approach will also help prevent over-generalizations, stereotyping, or oversimplifications, besides cultural misunderstandings or misrepresentations. This approach and techniques can also be executed in careful combination with other techniques such as method triangulation, data triangulation, and investigator triangulation, all of which we had discussed previously.^{19 20}

➤ What is a Hypothesis?

A hypothesis is held to be an important component in scientific research, and one that science heavily relies upon. It is therefore the basic fulcrum of scientific activity and research, and the activity of formulating or gestating a hypothesis is referred to a hypothesis-formulation or hypothesis-building. The term is thought to have been derived from the Greek word- “hypotithenai” which roughly translates to “put under” or to “to suppose”. Some Greek thinkers such as Plato, Aristotle and Socrates also laid the foundation for scientific method fairly early in the game, and must be given due credit for it. From an etymological perspective, the term “hypothesis” is made up of two different words, namely, “hypo” and “thesis” which means something which is inferior to, or less certain than a thesis. A hypothesis is a crude, not fully tested and not wholly validated theory

that is probed, investigated and tested further to form a more robust and a reliable theory. A hypothesis is extremely important because it often forms the basis of further investigation, and often sets the direction for further research. A hypothesis usually is born in the form of a working hypothesis or a crude hypothesis which is tested and refined further till it becomes a full-fledged hypothesis. A notable scholar who used the concept of a working hypothesis was the late scholar of Dravidian and Indological studies, Iravatham Mahadevan. A hypothesis is however different from a hunch. The latter has no foundational premise whatsoever, and is based merely on gut feel. It therefore, has no place, or no role to play in science. According to William J. Goode and Paul K. Hatt, who co-authored a book called “Methods in Social Research” in 1952, a hypothesis is “a proposition which can be put to test to determine its validity”.

G.A. Lundberg provides another definition which is as follows, “A hypothesis is a tentative generalization, the validity of which remains to be tested. In its most elementary, rudimentary and primitive stage, the hypothesis may refer to any preliminary guess, hunch, imaginative idea, etc, which eventually becomes the basis for further action or investigation”. In Webster’s words however, a hypothesis is “a tentative assumption made in order to draw out and test its logical or empirical consequences.” The term “Test” in this context and connection, means “either to prove it wrong or to confirm it”. (Webster 1968) There are some other definitions too, but these may mostly be superfluous and redundant, given that the above three definitions capture the crux and the quintessence of the entire term. Hypotheses must usually be tested and validated further, and methods to perform, achieve or accomplish this include falsification or falsifiability (as proposed by Karl Popper), verifiability (for e.g., verificationism), testability, or coherence (e.g., confirmation holism). Hypotheses are also empirically tested and verified through the means of experiments. In recent years, thought experiments have become extremely popular and this involves testing a hypothesis by thinking through its consequences. Examples of such experiments have included Schrodinger’s cat, and Laplace’s demon. There are of course, several more that will readily spring to mind.

Hypotheses must also be parsimonious and must contain a minimum possible number of entities; they must also possess significant explanatory power. Some hypothesis can be tested easily, while some others cannot. In such cases, time also is the best judge, and can prove, refute, or falsify hypotheses. That is the core philosophy of our approach. Examples of such hypothesis include a test to determine whether diet and nutrition improves cognitive abilities or not. Such hypothesis may take several decades or even centuries

¹⁸ Holland, J.H.; Holyoak, K.J.; Nisbett, R.E.; Thagard, P.R. (1989). *Induction: Processes of Inference, Learning, and Discovery*. Cambridge, MA

¹⁹ Generic Identity Theory for the Twenty-first Century: Towards grand unified approaches in identity formation, identity transformation and identity dilution or neutralization Sujay Rao Mandavilli Elk Asia Pacific Journal of Social Sciences Volume 5, Issue 3, 2019

²⁰ Towards a comprehensive compendium of factors impacting language dynamics in post-globalized scenarios: Presenting principles, paradigms and frameworks for use in the emerging science of language dynamics Sujay Rao Mandavilli Elk Asia Pacific Journal of Social Sciences Volume 6, Issue 3 (April –June 2020)

to evaluate, and must only be tested against the passage of time. A less complex hypothesis is whether education levels among women increase divorce rates or not. Here too, results may not reliably present themselves for several decades, and in order to avoid a hasty generalization fallacy, we may need data from other parts of the world. Researchers must use their best judgment here, and bear in mind at all times, the concept of “aeternitism” and “omnimodism”. We may also state here that we had introduced the concept of long-term ethnography in a previous paper. This is something that may be borne in mind by researchers as well. A hypothesis will therefore include variable and uncertain elements, many of which can also be tested across space and time. From our perspective, a theory may also be demoted to a hypothesis, if it is subsequently analyzed from the point of view of the principles of this paper.^{21 22 23 24}

➤ *What is a Paradigm?*

In both science and in the philosophy of science, the term paradigm is used to refer to a distinct set of concepts or thought patterns, which could include in their scope and purview, hypotheses, scientific theories, research methods and methodologies, postulates, axioms, rules and standards. According to the Merriam-Webster Online dictionary, the term paradigm is defined as “a philosophical and theoretical framework of a scientific discipline or school or discipline within which hypotheses, theories, laws, and generalizations and the experiments performed in order to obtain support of them or refute and falsify them are formulated; This term also broadly refers to a philosophical or theoretical framework of any kind.” The American historian and philosopher of science Thomas Samuel Kuhn, in his epochal, seminal and path-breaking book, “The Structure of Scientific Revolutions” that was published in 1962 defines a scientific paradigm as: “universally recognized scientific achievements that, for a time, provide model problems and solutions to a community of practitioners, by answering what, how, where, when and why questions.” A paradigm may either be a gold standard in a specific field, or may be necessary to move science and scientific endeavour to a much higher trajectory. The word “paradigm” is attributed to the Greek word “paradeigma”, and means “pattern”. Paradigms must also be tested against space and time just like hypotheses, and this is an important component of this paper.²⁵

²¹ Popper, Karl R. (1959), *The Logic of Scientific Discovery* 1934, 1959.

²² Guillaume, Astrid (2015). « Intertheoricity: Plasticity, Elasticity and Hybridity of Theories. Part II: Semiotics of Transferogenesis », in *Human and Social studies*, Vol.4, N°2 (2015), éd.Walter de Gruyter, Boston, Berlin, pp. 59–77.

²³ Guillaume, Astrid (2015). « The Intertheoricity : Plasticity, Elasticity and Hybridity of Theories », in *Human and Social studies*, Vol.4, N°1 (2015), éd.Walter de Gruyter, Boston, Berlin, pp. 13–29.

²⁴ Zima, Peter V. (2007). "What is theory? Cultural theory as discourse and dialogue". London: Continuum (translated

➤ *What is a Framework?*

A framework as a generic term typically refers to an essential supporting structure upon, or top of which other things are built. It is therefore, a supporting structure around which something additional is built. It therefore also equates to a system of rules, ideas, observations, or general beliefs that is used to anchor, plan or decide something. A good scientific framework is also defined in terms of its ability to provide guidance on how observations may be interpreted in order to construct more complex hypotheses or building blocks, besides reaching or arriving at conclusions. It is also usually compatible with future trends and predictions, at least to the extent possible, and to a fair degree. Examples of commonly and oft-cited frameworks include Newton's Principia or John Dalton's New System of Chemical Philosophy though of course there are many, many more. Paradigms must also be tested against space and time, and this is an important component of this paper.²⁶

➤ *What is a Concept?*

A concept is a usually abstract or a highly theoretical idea that is developed in order to serve as a foundation for much more concrete and robust principles, thoughts, concepts and beliefs. Concepts play an important role in the conceptualization of complex concepts by serving as useful visual or memory aids. Therefore, concepts are mental representations of ideas that are often subsequently consigned or put down to writing. Scientific concepts are ideas that help scientists and researchers understand scientific phenomena and furnish a broader and a comprehensive understanding of scientific principles, paradigms, hypothesis, frameworks, axioms, laws, and theories. Concepts are common on many or most fields of science including psychology, sociology, cultural anthropology, psychology or physiology, and often serve as building blocks for further studies. Concepts may be simple or complex, exact or inexact, basic or advanced, unitary or composite, subordinate or superordinate. We believe that all these terms are self-explanatory, and need no further elucidation. Concepts are sometimes validated through proof of concepts, and this is common outside science as well.

➤ *What is an Entity?*

An entity is another important concept and component from our perspective, though not as important as the ones we had discussed in the preceding part of this paper. An entity is a logically self-contained unit that completely exists as “itself”. It may or may not possess a material essence or a

from: Was ist Theorie? Theoriebegriff und Dialogische Theorie in der Kultur- und Sozialwissenschaften. Tübingen: A. Franke Verlag, 2004

²⁵ Dogan, Mattei., "Paradigms in the Social Sciences", in *International Encyclopedia of the Social and Behavioral Sciences*, Volume 16, 2001)

²⁶ Eysenck. M. W., (2012) *Fundamentals of Cognition* (2nd) Psychology Taylor & Francis

material existence, and may therefore include and encompass abstractions as well. The English word “entity” is believed to have been derived from the Latin term “entitas”, which means “being” or “existing”, and the term “entity” may therefore be construed to mean “a thing which exists”. Entities are formally studied in the science of ontology which investigates concepts of being, and of existence, and of the general recognition of entities as well. Particular and universal entities are studied as well, and this is of some consequence to this paper. A distinction between the two is established through the principle of generality and repeatability. Entities may be ordered into a chain of entities as we had mooted and discussed in the aforesaid paper. Relationship between entities may be categorized into the following categories as was discussed by us (a) Fully nested entities (b) Overlapping entities (c) Related- Temporally-related entities (d) Related- Spatially related entities (e) Related- functionally-related entities (As could be represented by an “Entity-relationship diagram” or a “static Venn diagram”). We may also use “DPPF techniques” or “Dialogue between the past, present and future techniques” that we had previously mooted to the extent they are viable and practicable.^{27 28 29 30}

➤ What is an Axiom?

An axiom, postulate, or assumption in science is a statement that is initially taken to be or accepted to be true, in order to serve as a premise or starting point for further reasoning, investigation, dialogue, debate and argument. It is also used to derive further statements or perform further and additional downstream analysis. There are however, some variations of the concepts based on the field of study, or the scholar in question. The word is said to originate from the Ancient Greek word “axioma”, which loosely translates to “that which is thought to be or deemed worthy or fit” or “that which commends and presents itself as evident”.³¹

➤ What is a Principle?

A principle is defined as a fundamental and foundational truth or proposition that is taken to be the basis of a system of beliefs or behavior or a chain of reasoning. Principles may be local, general or universal, they may reside within an entity, or be applicable and valid across entities. The latter are sometimes also referred to as overarching principles. They may also be implicit or explicit, and in the latter case, usually and typically manifest

themselves in the form of rules and standards. There the many common usages of the term such as “principles of sociology”, “principles of macroeconomics”, “principles of microeconomics etc”, though needless to say, some of them are highly and grossly misleading due to the level of precision or accuracy involved in the usage of the term.³²

➤ What is a Postulate?

A postulate is something that is assumed or suggested (or often widely held) as true as the basis for further reasoning, debate, discussion, or investigation. A postulate is also sometimes referred to as an axiom, and is widely held or believed to be correct within a scientific community, at least at a given point in time. Postulates are often very central and critical to a paradigm, and are seldom or rarely comprehensively revised. They are virtually never jettisoned in toto. It is not necessary to prove a postulate each time; either, they have already been proven, or are otherwise, logically self-evident. Postulates must be obvious and easy to understand. Besides, they must be used parsimoniously. They must be externally consistent, and be capable of being used independently. The idea of a postulate is very closely related to the term principle as well, though there are some fundamental differences. A principle has generally already been comprehensively or conclusively proven, though this is often not the case with a postulate.

➤ What is an Assumption?

An assumption is either something that is believed or held to be true (or probably true to some extent or measure) but is completely proven to be true. It is also generally something that has not entirely been entirely falsified or comprehensively refuted either. Assumptions must be kept to the barest minimum, they must be small and narrow too. This is the underlying principle behind Occam’s razor, also sometimes spelt as Ockham’s razor. The term is attributed to the fourteenth century friar, William of Ockham.

A ‘Universality Scale’ or a scale for ranking of principles may also be additionally prepared as and when practicable or possible by assessing and evaluating principles on the basis of the following factors (a) Their universality and their relevance on a time scale (b) Their geographical applicability or applicability based on spatial spread with cultural variations and deviations also factored in (c) The overall long-term or positive implications of the principle for

²⁷ Presenting the art and the science of Qualified Historiography: Anchoring history-writing in the event of uncertainty and unreliability of narratives Sujay Rao Mandavilli IJISRT Volume 7, Issue 7, July 2022

²⁸ Propositioning Investigative Historiography as a niche subfield within Twenty-first Century Historiography: Making a case for Investigative historiography in Twenty-first Century Social Sciences Sujay Rao Mandavilli IJISRT, August 2023

²⁹ Historiography by Objectives: A new approach for the study of history within the framework of the proposed Twenty-First Century School of Historiography Sujay Rao Mandavilli ELK Asia Pacific Journal of Social Sciences Vol 1, Issue 2 (2015

³⁰ Introducing Anthropological Historiography as an integral component of Twenty-first Century Historiography: The role played by Anthropological Historiography in the attainment of long-term Anthropological goals and objectives International Journal of Innovative Science and Research Technology, February 2018, Volume 3, Issue 2 Sujay Rao Mandavilli

³¹ Mendelson, Elliot (1987). *Introduction to mathematical logic*. Belmont, California: Wadsworth & Brooks.

³² John Cook Wilson (1889), *On an Evolutionist Theory of Axioms: inaugural lecture delivered October 15, 1889 (1st ed.)*, Oxford, Wikidata Q26720682

science and benefit for society as a whole. (d) Their conformity with natural laws and the natural order of things. (e) Their conformity with human nature and the general human psyche and the general human temperament. (f) Their conformity with principles in allied or associated disciplines with incompatibilities identified. The 'Universality Scale' can of course be extended to all types of entities also, and it is the duty of the 'aeternitist' and 'omnimodist' to consciously and conscientiously identify as far as practicably possible, viable, and feasible, principles which will have validity and currency across space and time. It is also the duty of the 'aeternitist' and the 'omnimodist' to identify preconditions and exceptions as well. This approach also calls for a reconciliation between short-term goals and objectives and long-term goals and objectives and long-term goals must usually take precedence over short-term goals and objectives. Of course, there could be exceptions to this general rule.

➤ What are Scenarios?

At the same time, scenarios must be consciously and conscientiously imagined, and envisaged. This is one of the fundamental and foundational duties of an aeternitist and an omnimodist. A scenario may be defined as a postulated, predicted or an anticipated sequence or development of events whose form, shape and direction may or may not be fully determined. We may have for example, known scenarios, unknown scenarios, likely scenarios, unlikely scenarios, time based scenarios, non-time based scenarios, culture-based scenarios, non-culture differentiated scenarios, etc, and all these terms are self-explanatory. There are usually more than one scenarios involved by the very definition of the term scenario. All these must be factored into hypothesis evaluation, and evaluation of principles, postulates and axioms as well (besides paradigms and frameworks too). This exercise may induce several changes and more principles, axioms, or postulates may be added to the list, or alternatively dropped out from the list altogether. Many may not even stand the test of time; for example, India has witnessed an upsurge in religious fervor, activity, dogma and xenophobia, but this may disappear and evaporate altogether if root cause analyses are performed, and suitable course corrections initiated and instituted.^{33 34}

V. APPROACHES TO BE ADOPTED FOR THIS PURPOSE

Therefore, the approach advocated and recommended as a part of this paper would be as follows, and this would be quite logical and self-explanatory for anyone who has travelled on our road this far. There is no need for too much of a fuss here, but let us give it a shot and a try nonetheless, and lay down in brief the steps involved which are not necessarily static and invariant.

- The first step is to identify and determine hypotheses, theories, laws, generalizations, postulates, axioms, principles, paradigms and frameworks, that are applicable for our purpose and for our exercise, and to attempt at least a cursory or a preliminary evaluation of them to begin with. Of course, literally everything under the sun would fall under the purview and umbrella of this exercise, literally everything. Of course, there would be time and cost concerns and considerations too, and these also need to be borne in mind at all times.
- The next step will be to validate concepts, theories, principles, axioms, frameworks, paradigms, etc, against known and unknown time based scenarios by envisaging as many scenarios as practically possible. We have discussed the meaning of the term scenario and have briefly touched upon the different types of scenarios as well. Readers may exercise their due diligence, and read up material on the internet wherever required.
- The next step would be to validate concepts, theories, principles, axioms, frameworks, and paradigms, against known and unknown culture based scenarios by envisaging as many scenarios as practically possible.
- As a part of this exercise, we must also carefully, methodically and systematically attempt to identify invariable component and variable components of hypotheses, theories, laws, generalizations, postulates, axioms, principles, paradigms and frameworks as well, and reexamine them from time to time in the light of newer data or evidence. However, as a crude rule of thumb, very little may be invariable; time changes everything, time changes everything, excepting for those which satisfy the principle of aeternitism.
- We must also be prepared to re-evaluate hypothesis theories, laws, generalizations, postulates, axioms, principles, paradigms and frameworks as necessary, and even be prepared to demote them from time to time if required. Of course, this needs to be done in the interests of science, and in not in a random, arbitrary, or an adhoc fashion. This may be done at regular or irregular intervals, or as and when changes manifest themselves.
- General or universal principles, axioms, postulates and concepts will become clearer as time progresses, and these must be identified and isolated formally. This must be done continuously or constantly as and when new evidence presents itself. This is of course not immune or impervious to change, and as the popular adage goes, change is the only constant in the universe.
- This approach and technique must be combined with a root cause analysis, and cause and effect analysis wherever required. Other critical thinking techniques and investigative techniques may be employed too, and we have been briefly discussing them off and on. For this, a cause and effect diagram which also known as a fishbone

³³ Ariew, Roger (1976). *Ockham's Razor: A Historical and Philosophical Analysis of Ockham's Principle of Parsimony*. Champaign-Urbana, University of Illinois

³⁴ Epstein, Robert (1984). "The Principle of Parsimony and Some Applications in Psychology". *Journal of Mind Behavior*. 5: 119–130.

diagram or a fishbone diagram may also be prepared for a greater clarity of purpose and analysis.

➤ *Examples of Practical Real-World Uses and Applications of this Approach*

Of course, there are many different possibilities for applying and employing this approach in practical and in worldly matters. For example, we may study the decline or unhealthy propagation of religion in different parts of the world, and identify root causes for the same so that further and future predictions can also be made. This will allow us not only to make predictions, but also propose course-corrections as necessary. The same analogy and technique can also be extrapolated for identifying, analyzing and predicting sociocultural change. One much more powerful example that we can cite here both in terms of relevance and overall impact on human society are the study and evaluation of economic development models. This assumes added importance given the fact that many, if not most economic development models can be demonstrated to be west or western-centric, primarily derived from the western experience, or designed to boost, further and propagate western ideas, ideals, values and goals. There were then slavishly imported and used elsewhere without the necessary tweaks and modifications. While many such models were not necessarily outright misfits in the contexts of other cultures, they prevented developing economies from realizing their full potential, and made them minions in the larger scheme of things. The absence of genuine intellectualism and creative, independent thinking has only served to compound matters, and make them much worse. All concepts in economics, including more mundane ones such as the marginal utility of money, the elasticity of demand, or the theory of diminishing marginal utility to cite a few examples, must be constantly and continuously be examined and reexamined from the point of view and perspective of this paper. This is also one reason why we had proposed the entire field of anthropological economics in the first place. Of course, this is only the tip of the iceberg, and a lot more work needs to be done, before progress is substantial. The very same observations hold good for observations made in fields such as psychology, psychiatry, sociology, and cultural anthropology too. Were Karl Marx's theories and proposals made and developed in the context of the mid-nineteenth century European experience? That at least is the general experience.

VI. CONCLUSION

This paper was linked in multiple ways to our papers or our earlier work on neo-centrism, hypothesis formulation, the sociological ninety ten rule, cross-cultural research design, and inductive approaches to hypothesis formulation, all of which have been published by us in various journals over the past couple of years. Therefore, all the relevant papers have been suitably referenced in this paper, and brief summaries and overviews of them also provided as and when required. This has been done in the general interests of coherence, internal consistency and clarity, in a manner that allowed readers to understand and comprehend the core concepts easily, and without much fuss or ado. To emphasize and to reiterate at this juncture, all our previous and current papers have been integrated seamlessly in a continuous chain, in such a way that none of our papers conflict with each other in any way, and to any extent or degree. We also believe that there are no fundamental or non-fundamental internal contradictions amongst our wide gamut and array of papers that we have been publishing over the years, and no logical fallacies and inconsistencies as well whatsoever. All our papers are therefore interrelated and mutually interdependent in myriad different ways; however, this paper has offered a fresh perspective by taking the concepts proposed in our earlier papers in an altogether new direction and trajectory. This has been done through the means and mechanism of hypothesis, paradigm, framework and concept evaluation and testing across space and time. Likewise, the core scientific concepts of axioms, principles, entities and assumptions, have also been revisited and evaluated for this purpose, with a few illustrations and examples thrown in. A revalidation of our concepts of "aeternitism" and "omnimodism" has also been carried out as a part of this paper. This exercise has of course been carried out in the interests of better science and better reliabilism; it therefore constitutes a core component of our "Globalization of science" mission and movement that is designed to take scientific endeavour to an altogether new level of performance and general accomplishment.