ISSN No:-2456-2165 https://doi.org/10.38124/ijisrt/25jul978

# Towards "Thick Analysis" of Statements, Propositions and Assertions: Compendious Evaluations with Immense Benefits in Research

Sujay Rao Mandavilli

Publication Date: 2025/07/21

**Abstract: This paper is quite obviously very closely interrelated with our two earlier papers and publications, on discourse analysis and fallacy identification that were conceptualized in the interests of better and intrinsically higher quality science. The core and central objective of this paper is therefore to present the concept of "thick analysis" by extending the concept of thick description, which pre-exists in social and cultural anthropology, though it is not quite so central and important to it. Before proceeding to the central theme of this paper, we discuss the multiple concepts of assertions, axioms, paradigms, frameworks, postulates, propositions, premises, inferences and implications threadbare. We then also explain how an analysis of these can be used for thick analysis from our perspective. Suitably conceived examples of thick analysis from across a diverse spectrum of human experience are also presented along with the merits and advantages of this approach and technique. As such, we expect this to constitute an important and a central part of scientific research, social sciences included, with many ramifications and implications for science as a whole.**

**How to Cite:** Sujay Rao Mandavilli (2025) Towards "Thick Analysis" of Statements, Propositions and Assertions: Compendious Evaluations with Immense Benefits in Research. *International Journal of Innovative Science and Research Technology*, 10(7), 1363-1371. https://doi.org/10.38124/ijisrt/25jul978

## I. INTRODUCTION

*"The only people who see the whole picture are the ones who step outside the frame." — Salman Rushdie, The Ground Beneath Her Feet*

*"Nothing is coincidence in strategical perception." — Toba Beta, Master of Stupidity*

*"Vagueness is the kingdom of the devil and it is as such on purpose." - On Vagueness" — Lamine Pearlheart*

This paper is quite obviously very closely interrelated with our two earlier papers and publications, on discourse analysis and fallacy identification that were conceptualized in the interests of better and intrinsically higher quality science. The core and central objective of this paper is therefore to present the concept of "thick analysis" by extending the concept of thick description, which pre-exists in social and cultural anthropology, though it is not quite so central and important to it. Before proceeding to the central theme of this paper, we discuss the multiple concepts of assertions, axioms, paradigms, frameworks, postulates, propositions, premises, inferences and implications threadbare. We then also explain how an analysis of these can be used for thick analysis from our perspective. Suitably conceived examples of thick analysis from across a diverse spectrum of human experience are also presented along with the merits and advantages of this approach and technique. As such, we expect this to constitute an important and a central part of scientific research, social sciences included, with many ramifications and implications for science as a whole.

We begin this paper by referencing our earlier paper, the title of which was "Initiating "discourse analysis" as a tool to differentiate between science and pseudoscience: Another valuable tool to advance objectivity and rigour in science". In this aforesaid and aforementioned paper, we had presented a broad overview of discourse analysis and narrative analysis and also speculated heavily on its potential specialist and no-specialist extensions. We had also discussed and evaluated various approaches to discourse analysis such as self-analysis and other forms of social analysis, interactional sociolinguistics, the ethnography of communication, speech act theory, pragmatics, converstional analysis, variation analysis, etc albeit briefly along with hermeneutical techniques. We had also presented our own approaches to discourse analysis in this paper, and this included a study of objectivity in mindset, researcher and investigator biases and prejudices, besides distinguishing and demarcating between science and pseudoscience. The two papers are obviously interrelated, and

ISSN No:-2456-2165 https://doi.org/10.38124/ijisrt/25jul978

both are fully correct. However, this paper represents a more dynamic and practical extension to the concepts proposed in the aforesaid paper. Another of our papers which we strongly recommend is "Devising smoking gun tests for objectivity in scholarship: Towards a comprehensive set of indicators to measure objectivity in scholarship" which was published by us in 2024. This paper must be studied in parallel to our two earlier related papers and publications, and all these complement each other; nothing in these three papers would override each other by any means, or to any degree. Let us now proceed to the meat of this paper. [1] [2] [3]

- *What are Statements?*

The term "statement" is obviously very widely used in everyday life, though it has a much more nuanced and intricate meaning in science, where it may be taken to mean a definite or clear expression of something either in speech or in writing, where it may even be a clear and a vivid articulation of a concept, or what we may call a "truth-bearer". This may work in different ways, and some statements such as "Gold in pink or orange" may not even be necessarily true. It may also be seen as a declarative sentence, declaring a thought or an idea, and in this context and connotation, may be seen as a proposition. A declarative sentence makes a declaration, or states an opinion or a fact. Some declarative sentences may also not constitute sentences. From a purely linguistic standpoint, statements are seen as linguistic objects, with strings of sentences, words, or syllables. Different philosophers such as Peter Strawson, have also attempted to analyze this concept from a purely linguistic point of view, thereby bringing out the intricacies and the shades of meaning involved. There are also some differences in thinking among scholars about what constitutes a sentence, and different scholars and philosophers of science – including Bertrand Russell, and Peter Strawson – hold slightly different points of view. A statement may either be true or false, with the outcome only being eventually known, and in this respect is different and distinct from an assertion which is a statement articulated with confidence. Some interrogative, optative, imperative, hortative, and exclamatory sentences may also not constitute statements from this point of view. A pronouncement is a much more official and a vocal announcement, in the manner or governmental or official declarations, and comes with the strong power of authority. [4] [5] [6]

- *What are Assertions?*

Assertions generally refer to confident or forceful statement of facts, ideas or beliefs. There are many different types of assertions, and the more common ones include basic, emphatic, and escalating assertions. Basic assertions are simple and direct statements expressing a personal opinion, conviction, belief, or a feeling. Emphatic assertions acknowledge or take into account other individuals' perspectives and feelings while at the same time asserting one's own beliefs or opinions. Escalating assertions are said to occur when an assertion is not reciprocated by the other party, and the first-party is forced to voice his statements more strongly or vociferously. Another less common type of assertions is "I-statements" where ""I" statements" are used to express feelings and desires. The term "assertion" also is widely used in other fields of study such as computer science and financial auditing. Some scholars also like to classify assertions into direct and indirect assertions, as in the case of the latter, the intended meaning is not explicitly, clearly or directly stated upfront, but is implied. [7] [8] [9]

- *Arguments*

An argument, as it is widely used in logic and reasoning, refers to a sequence of statements, some of which (known formally as premises) are given as the chief reasons in the support of another statement (also known formally as "the conclusion"). Arguments may either be valid or invalid, and this would naturally depend on whether the conclusion logically emanates from the premises or not. However, in the real-world, the relationship between the premises, and the conclusion may be multi-dimensional and multi-faceted, and there could be many different exceptions to every single rule. We may also talk about "inference" at this stage, and inference refers to the logical connection or a step-by-step process of reasoning that takes the investigator from the premises to the conclusion. Arguments can be said to be of two primary types

[1] Initiating "discourse analysis" as a tool to differentiate between science and pseudoscience: Another valuable tool to advance objectivity and rigour in science Published IJISRT, June 2024

[2] Devising smoking gun tests for objectivity in scholarship: Towards a comprehensive set of indicators to measure objectivity in scholarship Sujay Rao Mandavilli IJISRT, March 2024

[3] Towards 360 degree approaches to hypothesis formulation and evaluation: Another epochal milestone in twenty-first century science Sujay Rao Mandavilli Published in IJISRT, July 2025

[4] Ruzsa, Imre (2000), *Bevezetés a modern logikába*, Osiris tankönyvek, Budapest: Osiris

[5] Xenakis, Jason (1956). "Sentence and Statement: Prof. Quine on Mr. Strawson". *Analysis*. **16** (4): 91–4.

[6] *Irene Heim; Angelika Kratzer (1998). Semantics in generative grammar. Wiley-Blackwell. p. 304*

[7] Backus, J.W. (1959). "The Syntax and Semantics of the Proposed International Algebraic Language of Zürich ACM-GAMM Conference". *Proceedings of the International Conference on Information Processing*. UNESCO.

[8] *Bryant, Randal E. (2018). "Binary Decision Diagrams". In Clarke, Edmund M.; Henzinger, Thomas A.; Veith, Helmut; Bloem, Roderick (eds.). Handbook of Model Checking. p. 191*

[9] Chaki, Sagar; Gurfinkel, Arie (2018). "BDD-Based Symbolic Model Checking". In Clarke, Edmund M.; Henzinger, Thomas A.; Veith, Helmut; Bloem, Roderick (eds.). *Handbook of Model Checking*. p. 191

ISSN No:-2456-2165 https://doi.org/10.38124/ijisrt/25jul978

namely deductive arguments and inductive arguments on the basis of the general interrelationship between the premises and the conclusions. In case of deductive arguments premises provide sufficient evidence for the attainment of the conclusion, while in the case of inductive premises of inductive arguments provide only some evidence for the attainment of the conclusion but not all of it. The latter must be obtained separately through more thorough investigation, probably through inductive and grounds up data collection methods. Another concept that we would like to mention at this juncture is syllogistic reasoning which is a form of deductive reasoning where a conclusion is derived through logical analysis from two or more premises including a major premise, and a minor premise. A series or arranged and interdependent syllogisms is known as a polysyllogism or a sorite. [10] [11] [12]

- *Axioms*

An axiom, in scientific research, is closely related to a postulate, or an assumption is a statement that is generally accepted at face value, or taken to be true without much investigation or ado, in order that it may be used in further downstream reasoning and logic. An axiom may form the basis or the starting point for the development of more complex ideas and theories, and this is sometimes known as the axiomatic method. The word is thought to have arisen from the Ancient Greek word axioma, which meant worthy, self-evident, or fit. Axioms are therefore, self-evident and assumed, and are not generally derived from other paradigms or statements. Axioms form an integral part of several important fields such as mathematics, logic, and physics, though different names such as postulates are often adopted to describe them. There is a fundamental difference between axioms and theorems. For example, theorems are proven using axioms, and axioms here provide the convenient starting point. We must also make an effort to distinguish between logical and non-logical axioms at the very outset. While logical axioms are fundamental, and self-evident statements that are accepted as true without and accompanying or an underlying process or reasoning, non-logical axioms require more logic and reasoning to be clearly and incontrovertibly established. We must also bear in mind the concept of assumptions in this paper. Assumptions are something that are accepted without proof and must always be kept to the barest minimum. As such assumptions must be realistic, and must be within the realm of legitimate possibility. [13] [14] [15]

- *Propositions*

A proposition which is a central concept in logic and in science, refers to a statement that may be either true or false. Propositions have tended to play a central and a key role in the philosophy of science. Propositions are tied intrinsically to declarative sentences; for example, we may categorically state "Grass is always green". Propositions are linguistic statements that may be ported into any language under the sky. It is also possible to conclude that propositions are always sentences but sentences are not always propositions. Classification of proposition is carried out depending whether the statement contains another statement in which case, it is known as a compound proposition. All other propositions are simple propositions. Negation of a proposition on the other hand is referred to as a negative proposition, and this may be carried out by affixing the word not to the sentence just before the verb. Whenever the components of two propositions known as disjuncts are joined together by the connector "….. either …….or", it is referred to as a disjunctive proposition. [16] [17] [18]

- *Postulates*

A postulate is a concept that is closely related to the concept of an axiom, and the meaning even overlaps with it in some cases. In sum, and in a nutshell, it refers to a statement that is widely agreed to be, or accepted to be true. This concept is widely used in science and in mathematics, and is used for establishing or deriving proofs through theorems, and other secondary statements. Postulates must consist of self-evident truths, and must be internally and externally consistent. Postulates are also used in economics, though less commonly and frequently.

- *Paradigms*

A paradigm in the general philosophy of science, refers to a comprehensive or a fairly substantial set of concepts and thought patterns, that may include, but not be limited to theories, hypotheses, research methods and methodologies, postulates, axioms and standards to contribute positively and decisively to a field of scientific activity. The word paradigm is thought to be Greek in origin, and originally meant "pattern". According to the Merriam-Webster Online dictionary,

[10] Corbett, Edward P.J. *Classical Rhetoric for the Modern Student*. Oxford University Press, New York, 1971
[11] B. P. Bairan. *An Introduction to Syllogistic Logic*. Goodwill Trading. p. 342
[12] M. Cothran. *Traditional Logic II:Advanced Formal Logic*. Memoria Press. p. 342
[13] Mendelson, Elliot (1987). *Introduction to mathematical logic*. Belmont, California: Wadsworth & Brooks
[14] Wolff, P. *Breakthroughs in Mathematics*, 1963, New York: New American Library, pp 47–48
15 John Cook Wilson (1889), On an Evolutionist Theory of Axioms: inaugural lecture delivered October 15, 1889 (1st ed.), Oxford
16 Hurley, Patrick J. (2014). A concise introduction to logic (12th ed.). Stamford, CT: Cengage Learning. p. 2.
17 Balaguer, Mark (2016). "Platonism in metaphysics: Propositions". Stanford Encyclopedia of Philosophy.
18 Soames, Scott (2014). "Propositions as cognitive event types" (PDF). In King, Jeffrey C.; Soames, Scott; Speaks, Jeff (eds.). New Thinking about Propositions. New York: Oxford University Press.

ISSN No:-2456-2165 https://doi.org/10.38124/ijisrt/25jul978

a paradigm may be defined as "a theoretical and philosophical framework of a scientific school of thought or discipline or field of study within which hypotheses, theories, laws, and other generalizations (and the experiments performed in support of them) may be formulated. In other words, it refers to a philosophical or theoretical framework of any type."

- *Frameworks*

A framework may be defined as a basic foundation or a supporting structure (often a heuristic guide for planning and decision-making) that provides a basis for building upon or developing additional building blocks. It is usually a system or a set of rules and that guide a field of activity. This term is commonly used in many fields of scientific activity or research inquiry, including commerce, business studies, economics, and computing.

- *Premises*

In logic, the philosophy of science, and in scientific method, a premise may be defined as a statement that is assumed to be both valid true and is further used as a basis for arriving at an argument or conclusion. A premise typically provides the foundation or basis of evidence upon which a logical argument is carefully built. A premise may also be seen as a proposition is the basis of the claim of another proposition; the latter is, called a conclusion. Premises may range in complexity, and may range from being extremely simple, to extremely complex. [19] [20] [21] [22] [23] [24]

- *Implications*

In science, and in many general fields of every day activity, an "implication" refers to the potential short, medium or long-term consequences, effects, or impact of a research report or research findings in general. It relates to what the results suggest, imply for many aspects the everyday world, downstream triggers actions, or consequences, or how they may be applied in a broader context well beyond the research study in question. In sum, in short, and in brief, implications are a bridge between data and action. They also play a key role and a key part in guiding future research, and informing policy and practice. [25]

- *Inferences*

Inferences are an extremely important and integral part of scientific discovery. Loosely defined, they are steps in logical reasoning, transitioning from initial premises to logical consequences; To put it in plain and in simple English, the word “infer” only means to "carry forward" though it has extended meanings in science. Inference is commonly divided into both deduction and induction, concepts that we had discussed previously. While deduction refers to inference deriving logical conclusions from premises known to be true, induction is inference from particular evidence to a universal conclusion. Alternatively, if all the facts are contained in the premises, it is deductive, and if only some of the facts are contained in the premises, it is inductive. We sometimes use abductive logic and reasoning too, though far less commonly and frequently. Sometimes enumeration (The process of systematically listing options or elements) and analogy can also be used, though this may be somewhat less common. While drawing inferences we may use modus ponens, modus tollens, syllogisms, dilemmas, etc. These are outside the scope of this paper.

- *Combination with Discourse Analysis and Narrative Analysis*

Discourse analysis refers to a qualitative research technique primarily used in the social sciences to examine how language is used to construct layers of complex meaning and give a concrete shape to social reality and social and cultural identity. It also consequently and resultantly explores the complex sets of relationships that occur between languages viewed in a social, cultural, and historical milieu and setting and society and culture in general. It also goes beyond the traditional and literal meaning of words in order to understand how language can be used to convey a plethora of different perspectives and influence social structures multidimensionally as well. This technique therefore focuses on language in use, goes beyond canonical and structural interpretations, examines multiple diverse perspectives, and begs for a contextual understanding of patterns of language usage. Other related concepts are critical discourse analysis and conversation analysis. There must also be a combination with narrative analysis which is used to interpret stories with the aim of understanding the process by which individuals construct and interpret social and cultural worlds in order to derive and

19 Moulton, Forest Ray; Schifferes, Justus J., eds. (1960), The Autobiography of Science (2nd ed.), Doubleday.

20 *McElheny, Victor K. (2004), Watson & DNA: Making a scientific revolution, Basic Books*, ISBN 978-0-7382-0866-4.

[21] Popper, Karl R. (1963), *Conjectures and Refutations: The Growth of Scientific Knowledge*, Routledge

[22] Smith, A. Mark (2001a). "Alhacen's Theory of Visual Perception: A Critical Edition, with English Translation and Commentary, of the First Three Books of Alhacen's "De aspectibus", the Medieval Latin Version of Ibn al-Haytham's "Kitāb al-Manāẓir": Volume One: Introduction and Latin text". *Transactions of the American Philosophical Society*. **91** (4): 1–337

[23] Smith, A. Mark (2010). "ALHACEN ON REFRACTION: A Critical Edition, with English Translation and Commentary, of Book 7 of Alhacen's *De Aspectibus*. Volume One: Introduction and Latin Text. Volume Two: English Translation". *Transactions of the American Philosophical Society*. **100** (3)

[24] Thurs, Daniel (2011). "12. Scientific Methods". In Shank, Michael; Numbers, Ronald; Harrison, Peter (eds.). *Wrestling with Nature: From Omens to Science*. Chicago: University of Chicago Press. pp. 307–336

[25] *Voelkel, James R. (2001), Johannes Kepler and the New Astronomy, Oxford University Press*

ISSN No:-2456-2165 https://doi.org/10.38124/ijisrt/25jul978

demonstrate meanings. Sometimes, thematic analysis is also used to connect diverse and seemingly unconnected data to derive patterns and themes. Therefore, from the point of view and the perspective of this paper, discourse analysis and narrative analysis must be performed as systematically and rigorously as possible. [26] [27]

➢ *Use of Logic and Reasoning*

The commonly and widely used English word "logic" is thought to have been derived from the ancient Greek word "Logos", which means "thought". This is not surprising because Aristotle and other ancient Greek thinkers contributed greatly to the science of logic and reasoning. The school of thought derived from Aristotle' body of work is called Aristotlean logic. Logic may therefore deemed to be "The science of the laws of thought", or "The science of reasoning". More formal definitions have been provided by I.M. Copi and others, who see it as a study of the methods, tools, techniques and principles that differentiate and distinguish sound reasoning from unsound reasoning. Logic has, over the past couple of centuries morphed into a formal and structured field of study with immense ramifications for many fields of inquiry and study. Consequently and resultantly, it is taught in many schools, colleges, and universities across the world. Logic has always classified as a branch of philosophy which deals with arguments and reasoning, and philosophy as such, is fundamental to many spheres of human enquiry. It can also be applied in all walks of daily life, and can be used to greatly enrich the human experience. From the point of view, and the perspective of this paper, logic and reasoning must be used to perform "thick analysis", and this process must be carried out quite rigidly and formally. Our work more often than not, will have rich implications for science, and these may be categorized into direct implications, and indirect implications. [28] [29]

➢ *Thick Description*

The term "Thick description" has become an increasingly important and useful technique in the social sciences, particularly in social and cultural anthropology, sociology, and ethnography. The term "Thick description" was initially defined in 1968 by the eminent British philosopher Gilbert Ryle in "The Thinking of Thoughts: What is 'Le Penseur' Doing?" and "Thinking and Reflecting", and later used by the American anthropologist Clifford Geertz to describe required contemporary approaches in ethnography and saw the limelight in the eminent work "The Interpretation of Cultures" which was first published way back in the year 1973. Therefore, a distinction was made between "thin description" or superficial description, and "thick description", or description with context. The latter brought about an interconnected study of cultures with deep and rich meaning. It was seen by some anthropologists to differentiate and distinguish between good ethnography and bad or substandard ethnography. A thick description of human social action therefore describes not just physical behaviors, but their context as understood by how and why questions. This therefore, makes it more easily understandable to the outsider. There can be bona fide limitations and criticisms of thick description, firstly because it is too ethnography-centered, and secondly, because it is not generalized enough to be widely used across a wide and a broad spectrum of the social sciences, and non social sciences. [30]

➢ *What is a Fallacy?*

A fallacy is said to occur when an error of reasoning takes place. While most humans often make an earnest endeavour to reason correctly, errors in judgment and reasoning may often manifest themselves with unfortunate consequences. We may reason incorrectly when the premises of an argument fail to support its conclusion, or wherever there are logical non-sequitors involved. In the words of I.M.Copi, some arguments may appear to be valid and bona fide arguments when examined superficially, but may not hold up to more rigorous scrutiny. Analysis of fallacies when carried out formally or methodically helps researchers spot errors more quickly, and help them make decisions to rectify them, and make sure that they do not reoccur in future. Types of fallacies in science may include propositional fallacies, quantification fallacies, formal syllogistic fallacies, and informal fallacies among others. While these are beyond the scope of this paper, we had discussed some of these previously.

We must not only identify fallacies, but formally and systematically identify potential biases, potential prejudices potential errors, identifying causes of potential biases, identify causes of potential prejudices, identifying causes of potential errors, including primary causes, secondary causes, direct causes, indirect causes, deep, hidden and underlying causes. We may wish to perform a root causes analysis, cause and effect analysis, and derive rules of inference, Multiple lines of reasoning must also always be used. We may make use of flowcharts, decision tables, decision trees, decision matrices, and truth tables as well. We must also look for lacunae, loopholes, glitches, bugs, anomalies, discrepancies, and aberrations. We may also perform an investigative analysis, and use investigative techniques wherever required; this approach

[26] Breeze, Ruth (2013). *Corporate Discourse*. London: Bloomsbury Academic

[27] Wortham, Stanton; Kim, Deoksoon; May, Stephen, eds. (2017). *Discourse and Education*. Cham: Springer International Publishing

[28] Angell, Richard B. (1964). *Reasoning and Logic*. Ardent Media. p. 164

[29] Linsky, Bernard (2011). *The Evolution of Principia Mathematica: Bertrand Russell's Manuscripts and Notes* (2nd ed.). Cambridge University Press. p. 4

[30] Barth, Fredrik (2007). "Overview: Sixty Years in Anthropology". *Annual Review of Anthropology*. **36** (1): 1–16

ISSN No:-2456-2165 https://doi.org/10.38124/ijisrt/25jul978

will stand us in extremely good stead throughout a research process. Fallacy identification must become an integral part of this approach and technique given the fact that it may not often or always be covered under standard or textbook scientific method. [31] [32]

- *What to Look for, and How to Perform the Analysis*

We must understanding implications, and ramifications of everything, often from a wider, deeper, and a cross-cultural perspective. We may also perform a chain of thought analysis, and this is something we had discussed extensively in a previous paper. We must formally identify vested interests, conflicts of interest, ulterior motives, tendencies to lie or to distort truth and information, and understand psychological factors through a psychological analysis and a psychological investigation. While doing this, we must bear in mind personality types, and non-conformists such as lunatics, mavericks, dilettantes, fringe elements and outliers. Participant observation and ethnography must still be used, and emic perspectives obtained through phenomenology and other techniques. People's inner drives, mind-orientations, cultural orientations, urges, proclivities, and tendencies must also be carefully charted and understood. Causes for inferiority complexes, persecution complexes, superiority complexes, and other complexes must also be dissected and properly understood, along with gaps in cultural understanding. Readers may wish to read the book "Men are from Mars, women are from Venus" written by John Gray in the 1990's. While some aspects of this book may remain controversial, concepts such as gender differences still remain valid. Therefore, even gender studies need to be brought into the mix, even if marginally, and a multitude or plethora of perspectives brought into the mix.

We must even ask questions such as: "Why do different ethnic groups think differently?", "Why do different ethnic groups see each other differently?", "Why did the British not voluntary give India and other colonies freedom?". Victims understand pain better than victimizers. That is why we need emic and etmic perspectives, besides etic ones. We must adopt 360 degree approaches in thick analysis. Even more oblique concepts come into play here, and nothing must be left off the radar as long as it is more pertinent and relevant. For example, we had earlier postulated the theory of "Win win situations" in an earlier paper. Some western cliques want to exonerate Boeing for the Air India 171 crash that took place on the 12th of June 2025, and this may only be understandable. In this cases, it is not a win win situation for Americans and Boeing, and theories such as identity theory and the clash of civilizations must be borne in mind here. On the other hand, there is a win win situation for western companies hiring Indian software engineers; that is why off shoring continues. Everything has to be looked at from this perspective. Why did the British empire collapse? This is because it didn't fit in with this principle or view. Why won't western scholars take up the globalization of science movement? It is not because they are lazy or incompetent, but because there are vested interests involved. It is also highly likely that they simply just don't care. Why don't Indian Marxists take up the globalization of science movement? It is because they are blinded and clouded by dogma. We may adopt deconstruction as well, and this refers to a set of concepts and techniques proposed by Jacques Derrida and others. We may also introduce concepts such as deep emic and deep etic here; these are concepts that we had not touched upon in our previous papers. [33] [34]

- *Examples of "Thick Analysis" in Various Contexts and Situations*

We give below some meaningful and pertinent examples of thick analysis in different contexts and situations. These examples are fairly robust and comprehensive, but the trick here is to go beyond what is obvious; and go beyond hypothesis building, and what is offered by scientific method. This is what imparts this method its muscle and stamina. This is what makes our technique worthwhile pursuing. For example, if a person or an individual keeps on talking about the internet, it automatically implies that the internet exists, and will continue to exist. One must also discuss and debate scenarios that may lead to the termination and the discontinuation of the internet which at this point in time, seems unthinkable. This is just a shallow example, and we are still skimming on the surface here; it is now time for some more robust, albeit interesting examples. Therefore, from a perspective, thick analysis must be performed centrally or intrinsically as a part of any scientific investigation or analysis in future; this may not immediately happen, or come to pass, but this must at least be introduced and implemented gradually, and in stages. Such a report may be issued as a supplementary report, but it must at least contain the bare essentials of our recommendations which must be followed in letter and in spirit at all times.

This approach is interesting enough as it is, but let us add more spice to it by mentioning the example of Sherlock Holmes for the first time in our research history. Sherlock Holmes was a fictitious detective residing in 221B, Baker Street. The above personage was invented by the British author Sir Arthur Conan Doyle towards the end of the nineteenth century. We may note

[31] Thompson, W. B. (2001). "Policy Making through Thick and Thin: Thick Description as a Methodology for Communications and Democracy". *Policy Sciences*. **34** (1): 63–77

[32] Yon, Daniel A. (2003). "Highlights and Overview of the History of Educational Ethnography". *Annual Review of Anthropology*. **32** (1): 411–429

[33] Breckman, Warren. "Times of Theory: On Writing the History of French Theory," *Journal of the History of Ideas*, vol. 71, no. 3 (July 2010), 339–361

[34] Montefiore, Alan (ed., 1983), *Philosophy in France Today* Cambridge: Cambridge UP, pp. 34–50

ISSN No:-2456-2165 https://doi.org/10.38124/ijisrt/25jul978

here that Sherlock Holmes's inferences are almost always characterized by a great deal of meticulous observation, attention to detail, context-based analysis and observation, logical deduction, and a carefully conducted process of systematic elimination, employing both inductive and abductive logic and reasoning in order to arrive at a specific and a workable conclusion. Holmes, a fascinating figure when looked at from almost any angle, focuses on what appear to be trivialities and insignificant details, corroborating them with his vast, ocean deep knowledge and experience to arrive at a set of logical conclusions and inferences. Let us now examine a few assertions below:

Example A: A certain individual once said, "I will never call a certain individual a Mahatma": The implications of this statement are many; for starters, it may means that the first individual despises the second individual, or does not hold him in high esteem; it may also mean that he may only want to achieve and perform an objective or a balanced analysis. The above statements are at variance with each other naturally. But the trust must be culled through a further analysis of additional statements and assertions with suitable inferences drawn. If this cannot be satisfactorily performed, judgments or pronouncements must be suspended, or kept in abeyance. We may also infer from the above statement that individual A – the person making the assertion, has a certain ideological affiliation. We may also infer from the above statement, that that individual (namely, A) considers himself to be important, and believes that his opinions matter or count to his audience.

Example B: All tomatoes are red: This statement is not true, and as a matter of fact, it is wholly false. This is because unripe tomatoes may be delicate shades of yellow and green. Some tomatoes may also additionally have an orangish tinge to them. The above statement may mean or imply that the person making the statements lacks complete knowledge about tomatoes, and different varieties of them. It may also additionally mean or imply that the author of the statements is careless or lacks precision and rigour. It may also mean that he inherently believes and presumes his audience will think he is referring to ripe tomatoes.

Example C: All pumpkins are violet: This statement is patently absurd and false. It may however, imply many things, for example. The most plausible explanation he is that the author of the statement lacks knowledge. He may also be making this statement in jest, or may be assuming that his audiences are ignoramuses. Some would humorously like to conclude that he has colour blindness, or was tipsy and inebriated at the time of making. Whatever the real cause may be further investigation may be required, and corroboration with further statements or evidence may be necessary.

Example D: The Indus valley script is a mere collection of symbols: The inference that we can draw here from the basis of our previously conducted research is that the author making this statement lacks knowledge about writing systems and ancient writing systems, or that he has an intention to deceive ignoramuses. His ideas may also be obsolete or even half-baked, or he may not have read the latest research papers. His research method may also be flawed fundamentally, and erroneous. He may also lack rigour and in-depth precision. As an individual, he may not be precise or systematic, and may be endowed with a certain degree of nonchalance and carelessness. Of course, as always, the above inferences and conclusions need to be questioned by other researchers, and counterweighed and counterbalanced with other opinions and conclusions.

Example E: What is red is not white: This is obviously a blatantly obvious statement; it may mean that the author making the above statements believes his audiences are ignoramuses, and lack basic knowledge. He may also be making the above statement in jest. Readers may be make their own judgments as usual.

Example F: The pilots of Air India 171 tried to commit suicide: This theory if made without adequate proof may imply prejudice. There is apparently a lot of bias and prejudice in the ongoing investigation with an objective to either malign or exonerate sets of individuals, and cast aspersions on others. Readers may read our paper on 360 degree approaches to hypothesis formulation and evaluation. Hypothesis formulation and evaluation needs to be systematic, meticulous and thorough, and corroborated with multiple lines of evidence, with contradictory evidence and counterexamples also thrown in.

Example G: Boeing is fully responsible for the Air India 171 incident: This theory if made without adequate proof may imply prejudice. There is apparently a lot of bias and prejudice in the ongoing investigation with an objective to either malign or exonerate sets of individuals, and cast aspersions on others. Readers may read our paper on 360 degree approaches to hypothesis formulation and evaluation. Hypothesis formulation and evaluation needs to be systematic, meticulous and thorough, and corroborated with multiple lines of evidence, with contradictory evidence and counterexamples also thrown in.

Example H: An individual in India recommends education in English or in the mother tongue: From this, we can infer that this individual may have been swayed by his own personal experiences, cultural background, or ideological biases. We may also conclude and infer that the individual has a lack of knowledge of the multiple layers of complexities involved in this issues, and that there are different individuals in India hailing from different sociocultural and socioeconomic backgrounds involved. Therefore, a more in depth evaluation of his background is required along with his own knowledge or experience. A study and evaluation of his enculturation or acculturation patterns may also help a great deal.

ISSN No:-2456-2165 https://doi.org/10.38124/ijisrt/25jul978

Example I: A British scientist predicts that India's total fertility rate will fall to a certain level by 2100: in this case, the knowledge, experience and background of the investigator must be explored. Likewise, his grasp on the concepts of demography, population dynamics, and predictive analysis must also be thoroughly probed and investigated. All his conclusions must also be thoroughly probed and investigated, and traced to his premises. Underlying biases and prejudices, if any, must be laid bare. A more detailed investigation is required, to the extent data or information available will allow. The author of the prognosis may be quizzed if necessary.

Example J: People are ready to fly: This would imply that people trust the aircraft; people trust the aircraft manufacturer; people trust the pilots; and people trust the system. We may adopt a hierarchical analysis here, and use it for hypothesis building; for example, we may study an individual, then a group of individuals, and uncover cultural patterns while at the same time juxtaposing it with cultural trends. This would naturally be an extremely interesting and a useful kind of analysis to boot. Contrarily, if people are unready or unwilling to fly in any one region, or all across the globe, the reasons for it must be probed. A cultural analysis may be performed here, with cross-cultural differences analyzed.

Example K: An author makes too many assumptions in his paper: In this case, we may conclude that the author is naïve, accepts things at face value, lacks knowledge of either the subject matter, scientific method, logic and reasoning or all three.

Example L: An author resorts to ad hominem attacks excessively. In this case, we may cite the example of Gregory Possehl who while being a competent archeologist, may have been a deeply flawed intellectual. This may be due to his pompous naivety, lack of knowledge of India and Indian affairs, over reliance on colonial Indologists, lack of cross-cultural experiences, or his inability to collaborate meaningfully with subject matter experts across the intellectual and cultural spectrum. As the individual is now deceased , a reference may be made to his numerous writings, patterns unearthed and suitable and meaningful conclusions drawn.

Example M: Indian researchers blindly support pronatalism: This would mean and imply that Indian researchers cannot think independently, that Indian researchers blindly ape the west, or that Indian researchers lack contextual awareness because the ground realities of India are naturally different from those of other countries. Of course, there would be wide variations from individual to individual, and no two individuals would ever exactly be the same.

➢ *Advantages of Our Approach*

There are several distinct and diverse advantages, uses and implications our approach, and we present a few of them below, though there could obviously be many more, and these would become evident in the passage of time:

- Applicability to all fields of research and study: we believe that this approach would apply evenly and equally to all fields of research and study, and this would set it apart from thick description which is mostly used in the narrow context of ethnography and cultural studies.
- Goes far beyond scientific method and traditional and canonical investigative analysis: Our approach, we believe and affirm, goes far beyond traditional and canonical investigative analysis and adds a much more meaningful layer of analysis to such traditional and canonical investigative reports.
- Is much deeper than thick analysis and is much more comprehensive than thick analysis which represents an already existing field of study and line of enquiry: Our approach is also much deeper than thick analysis and is much more comprehensive than thick analysis as well. It therefore is a 360 degree approach, with wide implications and wide ramifications for multiple fields of study, and multiple areas of investigation. We can also have suitable extensions to cover larger issues such as hypothesis formulations and evaluation, topics that we have covered extensively earlier.
- Can be used to analyze systemic causes: Our approach can also be used to analyze a wide variety or systemic causes across multiple fields, and collate and aggregate them in order to ascertain and unearth simple or complex patterns of occurrence.
- Linked with cultural analysis: Our approach can also be linked with cultural analysis, and be used for cultural study, though this would, from our perspective, imply only one line of investigative enquiry.
- Can be combined with an evaluation of fallacies: This approach can also be meaningfully and judiciously combined with the discernment and evaluation of scientific fallacies, and we have written extensively about scientific fallacies earlier. All the other concepts in our multiple publications can be combined and recombined in multiple ways for a deeper and more comprehensive evaluation and analysis.
- Can be combined with meaningful party-specific recommendations: This approach can also be used to initiate meaningful and powerful third-party recommendations, and communicate them clearly and unequivocally to those parties.
- There are many other different applications of thick analysis including the following. For example, we can use this to identify research bias, uncover cultural biases and other systemic biases, uncover scientific fallacies, and fallacies of logic and reasoning, identify hidden and non-obvious meanings or patterns of meaning, unearth assumptions, uncover personality traits, identifying implications of faulty research for the specific item of research or for science and society and large, and uncover researcher or investigator biases directly or indirectly.

ISSN No:-2456-2165 https://doi.org/10.38124/ijisrt/25jul978

## II. CONCLUSION

This paper was quite obviously very closely interrelated with our two earlier papers and publications, on discourse analysis and fallacy identification that were conceptualized in the interests of better and intrinsically higher quality science. The core and central objective of this paper was therefore to present the concept of "thick analysis" by extending the concept of thick description, which pre-exists in social and cultural anthropology, though it is not quite so central and important to it. Before proceeding to the central theme of this paper, we had discussed the multiple concepts of assertions, axioms, paradigms, frameworks, postulates, propositions, premises, inferences and implications threadbare. We then also explained how an analysis of these concepts could be used for thick analysis from our perspective. Suitably conceived examples of thick analysis were also presented in this paper along with the merits and advantages of this approach and technique. As such, we expect this paper to constitute an important and a central part of scientific research, social sciences included, with many ramifications and implications for science as a whole.