

# Assessing Birth & Development Of Critical Thinking In The Socio-Economic Context Of Miletus & Structure Of Argument: From Thales To Socrates

Dr. Rashid Hussain Mughal<sup>1</sup> , Dr. Najma Begum<sup>2</sup>

<sup>1</sup> Serving as an Associate Professor-Political Science at Govt. Degree College, Mathra Peshawar, Khyber Pakhtunkwa, Pakistan. Email: [rmughal1976@yahoo.com](mailto:rmughal1976@yahoo.com)

<sup>1</sup> Serving as an Assistant Professor-Political Science at Frontier College for Women, Peshawar, Khyber Pakhtunkhwa. Email: [najmabegum111@gmail.com](mailto:najmabegum111@gmail.com)

## Abstract

This paper attempts to briefly describe birth and development of critical thinking from ancient Miletus, Asia Minor to Socrates of Athens in their socio-economic contexts. This paper comprises of two major sections, that is, first section deals with an assessment of the birth of crude line of critical thinking, transforming from the mythological explanations of the natural world, which also exposes the hollowness and futility of mythological explanations, whereas, the second section attempts to analyze that how critical thinking helps to construct principles of argument through human interactions. Qualitative and analytical methods are utilized for collecting and arranging the data for creating logical coherence in the argument, alongside, the study is conducted on the basis of mostly primary data from personal interviews through webinars that provided the prospects to generate an engaging conversation about the topic at hand, and however, secondary sources are also used to substantiate the central argument that will attempt to make emphasis on identifying an issue, analyzing the argument by discovering the facts, and challenging the established assumptions and biases prior to draw a conclusion.

**Keywords:** Socio-economic context, Asia Minor, mythological explanation, critical thinking, natural philosophers, principles of argument

## INTRODUCTION

We live in the age, wherein, thinking faculty of human beings is completely caught in a web, spun by socio-economic contexts, for instance, the concentrated capitalization, wealth accumulation, orchestrated culture have destroyed ability of human thinking, senses of wonder and longing. As a result, the human capacity to think rationally and critically has been slowly fading away.

Human thinking is a concrete and total reified product of socio-economic context, with the appearance of natural objects and the status of specified and monotonous forms. This monotonous form of human thinking fails to provide a concrete analysis of socio-economic realities (Bottomore, 1983). On the contrary, it tends to serve as an opium, solace, transient and ephemeral boost to the ordinary people. As a result, this monotonous thinking misleads us through false consciousness, superstitions or

mythological explanations (Ahmad, 2022). This mythological explanation or mystification is an opium to keep the ordinary people in reconciliation to servitude on one hand and, on the other, it also obstructs the creation of new line of thinking.

While, new line of thinking is an ability to observe and experience before making a skillful judgment. To make a judgment, it requires the transformed cognitive skills and intellectual dispositions. It enables us how to formulate an unbiased and reasonable argument and thus new line of thinking is a disciplined, precise, accurate and logically correct thinking (Chatfield, 2017).

The central argument of this paper revolves around that how and why socio-economic context of Miletus gave birth to the line of critical thought and how it laid influence later on the Greek philosophical thought of Socrates.

### **BIRTH & DEVELOPMENT OF CRUDE CRITICAL THINKING: NATURAL PHILOSOPHERS OF MILETUS**

Before the birth of critical thinking, answers about birth of the universe, were found in mythological explanations, for instance, knowledge of ancient Egyptian priest astronomers was closely linked with mythology that they used to sit on the roof of the temple to observe movements of stars determining for each day of the year to bring either good or ill-fortune. Similarly, the Egyptian goddess of Justice, Ma'at (harmony & balance), the central cultural value in Egyptian society, adhered to the principles of keeping always on right path and differentiating between just and unjust social behaviours. Though, it seemed the self-reflective thought in the Egyptian mythology, however, it was based on mythological explanation i.e., theogony. Nevertheless, it was their ability to draw the difference between just and unjust forces, however, their self-reflective thought drove to give birth to the crude line of critical thinking in

Miletus later on. The Egyptian concept of Ma'at was constructed in a socio-economic context determining the position of social strata and the virtue of human's behaviour. In short, Egyptians were capable of creating mythologies side by side paving way for the birth of crude critical thinking in Miletus (Pinch, 2004).

### **TOPOGRAPHY OF MILETUS**

The Miletus was geographically situated at the crossways of the Aegean Sea, ranging from Attica and the Peloponnesus, connecting the newly emerging Milesian intellectuality with the ancient civilizations of Egypt. Moreover, Miletus was also exposed to trade through the Aegean from the Near East- the neighbored Lydia. Through commercial and political interaction with the Near East, Eastern Mythology and logical thinking became accessible to Miletus (Stace, 1920).

### **CONTACTS OF MILESIA PHILOSOPHERS WITH EGYPT: DIFFUSION OF MYTHOLOGY**

Egyptian mythology was diffused through in Miletus of Ionia, Asia Minor and that was the result of their contacts with Egypt before the sixth century BC. During this period, numerous Milesian merchants, military personnel and intellectuals used to frequently visit Egypt via Mediterranean sea either for lucrative trade or for military services or for learning geometry, astronomy and philosophy. Early thinkers of Miletus knew well of the Egyptian culture and sources of their mysterious wisdom, as a result, they borrowed some of their blend of mythological thinking traits (Pott, 2005).

### **SOCIO-ECONOMIC CONTEXT OF MILETUS**

The luxurious and wealthy life of the Miletus was well-known throughout Greece. Milesian merchants, with levels of profits, used to lend money to a number of enterprises and even to the

city itself. Besides pottery, the city was also popular in Antiquity, the well-known textiles, purple dye and for the quality of lamb wool. Production of furniture was at large-scale as well as trade and industry were reached at the peak, and, as a result, the growing-wealth of Miletus gave birth to the crude critical thinking. It was this socio-economic context of Miletus that developed and offered the most distinguishing gift to the world i.e., crude form of critical line of thinking. Their trade with Near East and diffusion of Egyptian thoughts was the beginning of “Milesian reason”. Since, the ground for intellectual growth was by now prepared in Miletus, wherein, the prosperous and free audience was also ready to look for extensive experience through the evaluation of evidence building up their line of crude critical thinking, consequently, the Miletus gave birth to the theoretical inquiry in the history of Greece (Cartledge, 2011).

The socio-economic, politico-geographic, and cultural context of ancient Miletus persuaded thinkers to transform their mode of explanation of the natural world from mythological explanation of the natural world to evidence-based and critical explanations with sensory experience. Thales (624-548 BC), Anaximander (610-546 BC) and Anaximenes (570-526 BC) were the prominent thinkers of the Milesian School who built-up the basis of evidence-based thinking about the origin and substance of universe. Thales lived in the prosperous harbour city of Miletus, however, he extensively travelled through Egypt and Babylonia, and studied numerous aspects of the universe including engineering, geometry, and astronomy together with philosophy. He also learnt general theorems that underlay the transition of geometry to a science from a tool of technology (Stace, 1920). He abstracted natural laws through using observations and experience, for instance, he calculated the height of a pyramid through the measurement of its shadow at the

precise moment when the length of his own shadow was equal to his height. It was his belief that water is the source of all things, similarly, all life will return to water again when it dissolve (Gaarder, 1995).

However, his view of assuming water the primordial element was in no way radical as the similar view was also existed in Egyptian and Babylonian. According to the Iliad of Homer, “ocean is the origin of the gods” (Homer, 1999), similarly, water had already been assumed as the vital element of creation and life i.e., Creation by Atum or the universe is created by Nun, the water of chaos. Egyptians believed that the earth was balanced through the primacy of the Nun and, however, Thales shifted anthropomorphic mythology to critical explanation and postulated a single common substance by transcending beyond the pace of individual things. To him, water was the primordial i.e., the source of all things (Dawson, 2020).

Anaximander, the successor of Thales, also lived in Miletus and, he was of the view that natural world was made of something “boundless”. His speculations contained that how material things interacted, evolved and thus dissolved towards the end. He reinterpreted the natural phenomena to changes in the balance between forces of birth and death i.e., water, fire, earth and air. Though, the interaction and conflict between forces had already been identified in the Hesiodic myths, however, this time it was presented in a more critical way by the involvement of motions of the interacting elements. According to him, the heavenly bodies were carried by the circles and spheres on which each one goes. Though, the Egyptian priest astronomers conducted numerous observations on the movements of the sun and stars, however, it was Anaximander who attempted firstly to provide critical explanation of these movements. Similarly, he is also to be known as the father of evolution, as according to him, “living creature is born in moisture, enclosed in thorny barks; and

that as their age increased they came forth onto the drier part and, when the bark had broken off, they lived a different kind of life for a short time” (Gaarder, 1995).

Anaximenes, a companion of Anaximander and the third of the Milesian thinkers, however, had different views about the origin of the universe, for instance, he believed that source of all things was air or vapour as water was eventually condensed into air. Furthermore, he assumed that at the thickness of air, there was the occurrence of clouds and, as a result of further compression, rain was squeezed out. In short, he thought that all the elements, such as air, earth and fire, were essential to the creation of life, however, the cause of all natural things and change was air or vapour (Stace, 1920).

The difference between Egyptian and Milesian way of thinking was that the Milesian interpreted the natural world freely in terms of tangible and material explanation (cosmogony) without recourse to mythological intervention (theogony) and, as a result, they stepped ahead to use ability of their self-reflection that enabled them to observe and assess their own emotional, cognitive and behavioural processes as well as laid the intellectual foundation of crude line of critical thinking. The significance of critical study of the universe could now be assessed by its detachment from the struggle amongst gods for the Lordship. Nonetheless, single substance as source of all things was questioned that how could single substance suddenly transform into another and, as a result, a problem of change was now appeared.

Subsequently, this problem of change was found a fertile ground in Elea, another Greek colony, lying in the South of Italy. Some of the Eleatic thinkers, such as Parmenides (500 BC) and Heraclitus (540-480 BC), took interest to critically analyze the issue of the problem of

change. Parmenides was an unshakeable rationalist who believed of the primacy of human reason and the source of the origin of all things. Moreover, he also believed that nothing could beget out of nothing and nothing in existence could become nothing. He did not believe in actual change as everything was in constant change. To him sensory perceptions misled us and thus he assigned himself the task to expose all forms of sensory illusion. On the other, Heraclitus, living Ephesus in Asia Minor, believed that constant flux is the primordial of nature. Unlike Parmenides, he believed in sensory perceptions and, to him, everything flows and is in constant flux. Likewise, no one could step twice into the same river, moreover, he also believed in existence of interplay of opposites that was considered inevitable for the balance and order of things. To him, logos or universal reason that is responsible for creating balance in natural world and it is the source of all things.

### **AN ASSESSMENT OF MILESIAN LINE OF THINKING**

The Milesian thinkers contributed to depart from mythological explanation to comprehend the natural world through reasoning. It was a radical transformation in their intellectual activity from mythology that aimed to objectively explain and explore nature of things. They evaded mythology on the basis of traditional and non-argumentative, on the other, they rationally justified their arguments with objective evidence i.e., “the reason”, the ultimate principle of thinking. By introducing the principle of reason, they unveiled the mysteries of ultimate reality of all things through the use of reason. Their contention was to investigate and clarify by finding evidence or cause to interpret the ultimate reality of all things that was the clear transformation to logic and reason from Egyptian mythological explanation. Though, contribution of Milesian thinkers was in crude form as they never detached from Egyptian

mythology, however, credit must be given to them for their rejection of the established assumptions on one hand and, on the other, for the birth and development of new line of thought that provided an impetus to critical thinking later on. Consequently, their contribution laid a considerable impact on several subsequent Greek philosophers till Socrates.

## **CRITICAL THOUGHT IN THE SOCIO-ECONOMIC CONTEXT OF ATHENS:**

### **A PLACE OF INDIVIDUAL IN ATHENIAN SOCIETY**

**Athens, an important city-state of Greece, is situated at the South-Eastern flank of Greece, adjacent with the Aegean Sea lying to its North-East and the Mediterranean Sea at to the South-West, however, it is** stretched 5 miles away from the Bay of Phaleron (a bay of the Aegean Sea). The agrarian Athenians used to receive phoros (tributes) from the allied communities on account of their protection from foreign aggression. After the defeat of Persia at the hand of Athens in 480 BC, the city-state of Athens was prepared to be ruled by the common people through a form of democratic setup under the leadership of Pericles. Subsequently, Pericles promoted arts and literature and thus Athens became the centre of gravity for philosophy, culture, art and education. Followed by the Battle of Thymbra in 546 BC, spread of Milesian mode of thinking to the Athens created stir in the Greece too and that was the stimulating environment when Socrates (469 BC) had put thinking on the path toward finding contradictions in argument of speech and writing. His method of discussion provided the basis of good reason for reaching to a solution. Since, he wrote nothing, however, his pupil-Plato provided information about his mentor in his dialogues,

such as the Euthyphro, Apology, Crito, and Phaedo.

In Apology, for instance, Plato quoted Socrates that “An unexamined life is not worth living”<sup>3</sup>. We usually attempt to persuade others by different written and spoken unexamined statements:

- To do or not to do things; &
- To believe or not believe;

For instances;

- Obesity refers to an increase in total body fat;
- Anger is associated with hypertension;
- History repeats itself;
- Stock market is the mirror of economy &
- Allama Iqbal is a philosopher

Some of the above-noted statements are simply ignored, some are unreflectively accepted or some are unreflectively rejected altogether. Whereas, some of the statements are required to think about and question asking why should I do or refrain to do that; why I should believe or not believe that. This, however, requires a reason together with authentic justification i.e., providing good reason that motivates us to do or to believe as we are recommended to do. Furthermore, providing good reason is to persuade others to do or to believe specific statement that results in making the statement an argument. Though, not all types of attempts to persuade are arguments, however, some of the statements intend to persuade others by providing good reason for acting or believing. The subject matter of critical thinking is to identify argumentative statements, however, critical thinking also aims to distinguish argumentative attempts from non-argumentative attempts to persuade.

<sup>3</sup> Hammonsworth, *Apology by Plato*. Penguin 1969, p. 72

## PRINCIPLES OF AN ARGUMENT

Socrates provided us the yardstick to measure the principle of an argument i.e., the logic that teaches us about the absence and abuse of the logic in an argument. It helps us to understand meaning of isolated statements and to identify inconsistency and contradiction in the statements before we reach to the truth. For instance, Socrates asked a series of questions from Protagoras in a following way (Stace, 1920):

“Socrates: what is the relationship between “wisdom and self-control?”

Protagoras: there is no relationship between wisdom and self-control

- That wisdom is the opposite of folly;
- That every word has an opposite and only one opposite; &
- That folly is the opposite self-control

Socrates interrupts him by identifying isolated statements and contradictions in the above-noted statements in a following way:

- That if wisdom is the opposite of folly;
- That if self-control is the opposite of folly; then
- Wisdom and self-control are two opposites of the same word i.e., folly”.

Towards the end, Protagoras has rejected his original assertion that there is no relationship at all between wisdom and self-control. In the above-noted question-answer series, Socrates challenged the established belief and assumption of Protagoras that ultimately led him to re-examine his assumption about the relationship between wisdom and self-control.

Usually, we use Socrates Method to promote critical thinking that mainly focuses on asking questions than answers and, as a result, it never stops at any point of thought else it improvises the discussion for further analysis and research. Moreover, it also helps us for further inquiry by cross-examining claims and premises to unveil inconsistencies and contradictions into these claims for the accomplishment of the ultimate goal.

Secondly, an argument is a term that aims at providing someone a good reason to believe something, however, it is set of propositions comprising of a conclusion and premises that are intended to support for the conclusion. It is pertinent to note that the terms “premise” and “conclusion” are relative i.e., the same statement may be both a premise in one argument and a conclusion to another arguments in a series of interlocked arguments. However, the classic example of an argument is given below (Stace, 1920):

All men are mortal [**Premise I**]

Socrates is a man [**Premise II**]

Socrates is mortal [**Conclusion**]

To understand the composition or structure of an argument, it is pertinent to firstly identify the constituent parts of an argument. The primary claim of an argument is conclusion that aims at getting others to accept, whereas, the supportive claims are the premises that aim at providing us good reasons to accept the conclusion. However, there are certain rules to identify constituent parts of an argument i.e., premises and conclusions (Bowel & Kemp, 2002). These include:

- Contents of argument are not essentials alone to identify premises and conclusions;
- Premises and conclusions can appear anywhere in a paragraph;

- Conclusion can be signified as therefore, thus, hence, consequently, then and as a result, I conclude and so and so forth, for instance, I think **therefore** I am;
- A premise is signified as since, because, whereas, for, as and so forth, for instance, Allama Iqbal was a sufi (mystic) poet and **because** no mystic can be a philosopher, we conclude that Allama Iqbal is not philosopher;
- A reader can supply premises or conclusion if an argument is unexpressed in it and this type of argument is referred to as an enthymeme, for instance, taking of excessive calories than the required need [**supplied by the author**] and because excessive calories convert into fat and, therefore, it causes obesity;
- Any proposition in the sorites, a set of interlocking arguments, may be both premise and a conclusion i.e., the conclusion to one argument may be the premise to the second argument.

The central aim of an argument is to persuade others by providing them a good reason to believe in a claim and, therefore, it appeals to critical faculties and reason of others.

Critical thinking is a meta-cognitive process that encompasses several skills and dispositions aiming to enhance the chances of reaching to a logical solution of a problem as well as building a valid argument through focused, reflective, self-regulation and insightful judgment. Critical thinking also aims to analyze

an argument, make an inference through using deductive or inductive reasoning, evaluating and making decision. The dispositions of critical thinking include: attitudes & habits of mind, reflection, truth seeking, intuitiveness, clarity, accuracy, precision, relevance, depth, breath, logic, significance, open and fairness. It also aims to urge an internal drive towards engaging a problem and making decisions through using critical thinking. In the process of critical thinking, the person intends to value and believe in approaching a problem through using proper skills to reach to a good conclusion (Eignenaur, July 22, 2021).

Critical thinking stems from the very course of development of reality and best of all quickly accommodates with the ground realities. For instance, it corresponds to the requirements of socio-economic context and material productions. Moreover, it meets the requirements and interests of progressive and advanced thinking order that is why it struggles to get victory over the traditional thinking. For instance, emergence of national democratic governments is the outcome of the struggle against old colonial world that represent new and progressive stage in the social development. The invincibility of critical thinking does not mean that it becomes victorious by itself, nevertheless, it prepares and doggedly fights for its victory over traditional thinking (Gunarwardena, July 30, 2021).

The objective world is not only developing, however, it is well-connected and integrated in entirety. In this changing world, critical thinking does neither emerge itself nor in isolation but in connection and unity with the changes and development of the world and is thus subjected to reciprocal influence. Critical thinking is proved to be effective and instrumental in solving problems and issues by means of interconnectivity and interdependence of human thinking with contextual and material development of the world. For instance, it helps

to gain real knowledge of the material world alongside all the aspects and connections. Thus, important task of critical thinking is to solve the issue by examining the world as an integral connected whole and their inherent contradictions and universal connections. Since, aspects of the material world are diverse alongside their interactions and interconnections, critical thinking does not study all but only the most general connections that usually exist in all sphere of the material world. Moreover, an open-minded, free, unbiased and critical thinker can alone be able to understand these connections that could be reflected in human consciousness (Ali, July 24, 2021; Hitchcock, July 13, 2021).

## CONCLUSION

The radical views of the Milesian thinkers deserve for the birth and development of crude critical thinking and, by now, it encompasses every aspect of logical reasoning that is an essential tool of inquiry. It enables us to habitually be inquisitive, profound and all-round thinkers that comprises of scientific method of comprehending the material world alongside the most diverse realities. It is an effective and instrumental method of revolutionary transformation of thinking order from established assumptions to evidence-based thinking maintaining that nothing is absolute and undying and nothing is permanent but infinite process of change and progress thus it is perpetual, continuous and inexorable advance. It rejects obsolete and backward assumptions that contradict reality. It restricts stereotyped practices, stagnation and dogmatism in thought and practice and, as a result, it leads to awaken us from euphemism and opiated sleep and thus enable us to identify, assess and evaluate an issue with clear-headedness, precision, accuracy and fairness to reach to a conclusion.

## References Cited

1. Ahmad, J, A. (2022). Slow Death of Critical Thinking. "Dawn the Daily Newspaper", Islamabad, August 14
2. Bottomore, T. (1983). *A Dictionary of Marxist Thought*. Blackwell Publishers Ltd, London, p 210
3. Bowell, T & Kemp, G. (2002). *Critical Thinking: A Concise Guide*. New Fetter Lane, London
4. Cartledge, P. (2011). *Ancient Greece: A Very Short Introduction*. Oxford University Press, UK, p 145
5. Chatfield, T. (2017). *Critical Thinking: Your Guide to Effective Argument, Successful Analysis and Independent Study*. Sage Publications, UK, p 29
6. Dawson, P, M. (2020). *Critical Thinking and Analytical Mind: The Art of Making Decisions and Solving Problems. Think Clearly, Avoid Cognitive Biases and Fallacies in Systems. Improve Listening Skills. Be a Logical Thinker*. Kindle Edition, USA, p 233
7. Gaarder, J. (1995). *Sophie's World: A Novel About the History of Philosophy*. Phoenix House, UK, pp 11-24
8. Moore, B, N., Parker, R. (1991). *Critical Thinking*. McGraw-Hill Companies, Inc., NY, 69
9. Pinch, G. (2004). *Egyptian Mythology: A Guide to the Gods, Goddesses, and Traditions of Ancient*. Oxford University Press, USA, p 167
10. Pott, J. (2005). *Meet the Philosophers of Ancient Greece*. Routledge, UK, p 89
11. Stace, T, W. (1920). *A Critical History of Greek Philosophy*. Macmillan and Co. Limited St. Martin's Street, London, p 201
12. **Conducted Webinars on Critical Thinking**
13. Eigenauer, J. (2021, July 22). Mr. (T. Scholar, Interviewer), Professor at



- Department of Philosophy, Taft College,  
California, USA
14. Ali, M. (2021, July 24). Mr. (T. Scholar, Interviewer), Professor, an eminent Historian of Pakistan
  15. Gunarwardena, M. (2021, July 30). Mr. (T. Scholar, Interviewer), Assistant Professor & Learning Design Scientist, University of Canberra, Australia
  16. Ahmad, S. (2021, August 07). Mr. (T, Scholar, Interviewer), Ex-Chairman of Pakistan Study Department, Karachi, Pakistan
  17. Wiles, R, J. (2021, August 21). Mr. (T. Scholar, Interviewer), Associate Professor of Biology, Syracuse University, USA
  18. Hanscomb, S. (2021, September 09). Mr. (T. Scholar, Interviewer), Senior Lecturer in Philosophy & Communication, the University of Glasgow, School of Interdisciplinary Studies