

# **Theory of Knowledge Essay**

**Examination Session: May 2020**

Title 5: "Given that every theory has its limitations, we need to retain a multiplicity of theories to understand the world." Discuss this claim with reference to two areas of knowledge.

Word Count: 1598

The primary assumptions of the claim in the prescribed title (PT) indicate bold assertions regarding the nature and properties of theories. These assertions are explicitly made through the phrases “**given** that every theory has its limitations”, and “we **need** to retain a multiplicity of theories”. An important keyword ‘retain’ should be considered in the context of ‘holding on to or continuing to have’: this definition clarifies how the multiplicity of theories needs to be analyzed to understand the world. Isolating what a theory is and capturing its implications will lead to a concrete and true understanding of the world. However, before defining the notion of a theory, it is important to consider the type of theory that is retained. Fundamental theories are defined by their broader scope in an AOK or a discipline whereas specific theories explain/justify a phenomenon or a behaviour enveloped in an AOK. The classification of theories allows for a clear distinction of the scope of theories, and hence whether a multiplicity needs to be retained or not.

A theory can be construed as “a set of principles or ideas or beliefs used to explain and describe a phenomenon or a group of facts.”<sup>1</sup> More significantly, it is crucial to know how theories are defined in their subsequent AOKs. In the Natural Sciences (NS), a theory explains/defines known behavior and phenomenon by using objectivity and measurability in the framework of the empirical method. A verifiable theory in NS is applied to reach an understanding of an objective or an imaginative feature of the world, and is limited by scope of the phenomenon/behavior itself. It must be in concordance with the correspondence theory of truth - a “characteristic relation to some portion of reality” - and verifiable by the scientific method.

In stark contrast, a theory in Arts is a justification of a functionality of a medium of expression in a religious, cultural, or social construct. Its applicability to understand the world is reliant on

acceptance of knowledge in the social structure of an art form. The extent to which a theory in the Arts yields to an understanding of the world is reliant on the pluralistic theory of truth, which indicates that an unequal social hierarchy is the cause for acceptance of a theory.

This essay will explore the extent to which theories need to be true in order to be retained. The scope, nature, and methodology of each AOK - NS and Arts - will be used to form cohesive arguments. The pluralistic and correspondence theories of truth are used to define the nature of theories in Arts and NS respectively. On the other hand, the distinction in fundamental and specific theories is considered to map the extent of the limitations of these theories.

With respect to the Natural Sciences (NS), wherein the methodology and nature is based upon repeatability of a hypothesis by producing consistent results, a theory can be defined as an explanation or description of a known behavior.<sup>2</sup> An understanding of the world can be produced when a prediction of future behavior can be modeled in the multitude of disciplines in NS. To consider such theories to be true, knowledge has to be proven to show coherence, or to reproduce the same results over and over again when the scientific methodology has been performed to prove the existence of a phenomenon. *A multiplicity of fundamental theories in the NS may be retained if they explain phenomenon that cannot be replicated in real life.* To propose such a theory, the empirical method of science should be followed – a hypothesis, an experiment, analysis, subsequent observations, and conclusions must be made.<sup>3</sup> For a hypothesis in itself, the WOK of imagination is utilized in order to predict the result before practically conducting the experiment. Instead of serving as a “passive reaction to observed realities”<sup>4</sup>, imagination goes beyond the practicality of verification, therefore allowing creative control among scientists. Coupled with

reason during the process of observation to conclude with a rational statement adhering to the limitations in which the theory can prove to be coherently true, scientific claims can be considered falsifiable. *Limitations, on the other hand, are set by how the theory is framed: it can be applied in a closed system, an isolated system, or a real-life scenario.* This means that scientific idea or theory, regardless of the analytical deductions made, can be considered to be the ‘truth’ unless and until there has been a proof that can undermine the claim. A fundamental theory in the natural sciences is able to explain or define a phenomenon that is crucial to the particular discipline within the AOK. For instance, when general physicist Max Planck was able to theorize the existence of blackbodies as oscillators and emitters of energy: he pioneered the discipline of Quantum Mechanics in Physics<sup>5</sup>. Without this theory, Louis de Broglie wouldn’t have been able to come up with the theory of particles exhibiting the properties of waves in 1922<sup>6</sup>. The importance of a fundamental theory can essentially be seen in this evidence, as various groundbreaking theories were formed based on Planck’s hypothesis. If an evaluation of these sets of theories can be made, it is clear that the fundamental theory of blackbody radiation made up of small packets or quantized forms of energy being was far more important for physicists to understand or retain clarity about the phenomenon of Quantum Mechanics. However, this theory only scraped the surface when compared to the various other theories postulated by physicists following Planck. There needs to be a multiplicity of fundamentally true theories explaining different phenomena in disciplines that ultimately allow us to understand the world better.

Often times, the Arts can be a representation of religious medium, culture, societal movement, historical event, or a sort of aesthetically, or auditorily pleasing experience that allows the viewer or listener to advocate or imbibe a message from the presented artform. Theories in the arts are

slightly more loosely defined as the arts have a lot of subgroups such as performing arts, visual arts, and literary arts. The performing arts constitute a plethora of divisions, from theatre to music. Specifically, I have been studying Indian Carnatic Music theory for the past 6 years, and I have noticed that the multitude of theories that explain certain techniques and rhythms are based on religious epics such as the Ramayana and the Mahabharatha.<sup>7</sup> In the context of a musical octave or diatonic scale, which is known as a 'sruthi' in Carnatic Music, there are essentially 7 'swaras' or notes in 1 octave: sa, ri, ga, ma, pa, dha, and ni.<sup>8</sup> It has been hypothesized that each of these 7 notes represent a body part such as nose, throat, stomach, head, etc<sup>9</sup>. On the other hand, another theory claims that each note stands for different animals: 'sa' for peacock, 'ri' for ox, 'ga' for goat, 'ma' for crane, 'pa' for cuckoo, 'dha' for horse, and 'ni' for elephant<sup>10</sup>. These contrasting theories do not result in a vague understanding of an octave, but rather, *they bring forth new perspectives in understanding their purpose and musical effect*. Hence a multiplicity of theories are essential to understand the multicultural perspectives that are represented in performance arts. As stated by Mahadevan Ramesh<sup>11</sup>, an avid Carnatic music researcher, such postulates are essential to the complex understanding of the music public sphere, and as many other musicologists have stated, can lead to the development of subsequent theories. However, the concept of notes stems from the development of an octave and the various 'raagas' or combination of notes that have been used. The aforementioned theories are not fundamental, meaning that they are not based on core theoretical principles of Carnatic music, which include the development of the 72 basic 'Mela-Raagas' or parent scales proposed by Venkatamakhi in the 11th century AD<sup>12</sup>, and the 22 unique srutis that the raagas are based on. *Fundamental alternative or contradictory theories may result in poor foundation and uncertainty in acquisition of valid knowledge production of the AOK itself, and may warp the definition of absolute truths that have been defined by musicologists*. Whether

viewed from an objective or a subjective standpoint, Carnatic music has been a field that has been constantly changing. From language as a WOK, new words have been coined and incorporated into compositions and altered the meaning and impact on audiences. A multitude of new raagas have been introduced, and have altered the scope of Carnatic Music. Although such changes are being made to Carnatic music, the building blocks or initial theories upon which subsequent theories are formulated have not changed. A multiplicity of fundamental theories may not be retained as they may lead to a poor understanding of the theoretical foundations of Art.

Evaluating the arguments made, understanding the world can be interpreted as a way of explaining the world's phenomenon around us in NS, as opposed to a system dependent on the cultural public space in the Arts.

The degree of need to retain a multiplicity of theories to understand the world is subject to the nature and purpose of the distinctive AOKs, it is also dependent on what is the scope of study in each AOK. If fundamental theories overlap, only part of these theories shall be retained, which is not a multiplicity. If these theories are from different disciplines, then it will allow for a multi-dimensional approach in understanding the world. If a multiplicity of base theories are retained, it will lead to a deeper understanding of the world. Hence, retaining multiplicity of theories is context bound, may not always yield better understanding of the world.

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