

## EXPERIMENT IN PHILOSOPHICAL ANALYSIS: ECHOES FROM THE LABORATORY OF THE MIND

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### **Abstract**

*Philosophy is seen as a theoretical, abstract, abstruse and speculative discipline with no tincture of connection to practical life. This observation is often predicated on the argument that unlike the natural sciences, philosophy has no laboratories where its ideas and theories can be put to test to ascertain its efficacy. Against this backdrop, this paper argues that experiment as a concept is given a myopic empirical connotation that makes philosophy appear as lacking experiments to illustrate its claims. Hence, the paper disagrees with the reductive notion of experiment and outlines its wider sense. It identifies thought experiment as experiment in philosophical analysis and the mind as its laboratory. The paper presents some selected thought experiments in philosophy to illustrate how philosophical concepts and theories are tested in order to show their relevance to practical life. The paper concludes that philosophy engages in experiment within the purview of thought.*

**Key words:** Thought experiment, Laboratory, mind, thought, Reductionism

### **Introduction**

Generally, “philosophy” evokes the idea of an abstract, abstruse, speculative and theoretical discipline that is totally detached from life whenever and wherever it is mentioned. This popular but unfortunate conception of philosophy is strengthened by philosophers’ obfuscation of the term by what they see as its concerns as well as its modus operandi. Most philosophers today believe that philosophy is not a factual science that describes important aspects of the world, but rather, an analytic discipline for clarifying how human beings think about the world. Philosophy, they argue, simply seeks to describe the concepts by which the

world is conceived, not to describe the world itself. This explains why, Simon Blackburn (2008, p. 275) sees philosophy as “the study of the most general and abstract features of the world and categories with which we think: mind, matter, reason, proof, truth etc.” In the same vein, Gregory Pence (2000, p. 42) defines philosophy as “the study of the most abstract and general questions about the world, and how we think, experience and should behave.” Philosophy for Lawhead (2002, p. xxv) is “the human attempt to systematically study the most fundamental structures of our experience in order to arrive at beliefs that are as conceptually clear, experientially confirmed, and rationally coherent as possible.” In the words of Steward, Blocker and Petrik, philosophy “is the use of rational, reflective method for attempting to get at the past basic underlying principles and to discover normative criteria” (2010, p.4).

The above definitions of philosophy reveals that philosophy as a discipline is not really concerned with the factual accuracy of statements about the world than with their meanings. It focuses on the analysis and description of concepts with which we make meaning of the world around us. Hence, the claim that philosophy conjures up the image of something general, theoretical and detached from practical affairs of life. Against this backdrop, Bertrand Russell in his book, *The Problem of Philosophy* argues that many are quick to dismiss philosophical inquiry on the ground that it cannot yield any practical, demonstrably true conclusions. He maintains that judgement of this kind come too quickly and underscores a misunderstanding of the goals of philosophical study. According to him, “many men under the influence of science or of practical affairs are inclined to doubt whether philosophy is anything better than innocent but useless trifling, hair-splitting discipline” (1912, p. 89). Against this pessimism about the practicability of philosophy, Russell counsels that:

Philosophy should be studied not for the sake of definitive answers to its questions, but rather for the sake of the questions themselves because these questions enlarge our conception of what is possible, enrich our intellectual imagination and diminish the dogmatic assurance which closes the mind against speculation (p. 161).

In line with Russell’s submission above, Adekunle Ibrahim (2019) argues that “philosophy provides us with the conceptual, analytic and interpretative tools to deal with the myriad of realities we face in our daily life” he observes that the denial of philosophy’s relevance to everyday life is predicated on the fact that philosophy has become professionalized and as such detached philosophers from the practical concerns of life. According to him, a keen observation however shows

that the emergence and sustenance of philosophical inquiry is dependent on the contradiction of human life. In his words:

Philosophical ideas and problems are inspired, generated and sustained by the ever-evolving contradictions of human life. These contradictions in human existence provide the raw materials for philosophical discourse ...if philosophy turns away from the practical concerns of human life; it is tantamount to detaching from its source of life (20).

Ibrahim's argument above illustrates the position of this paper that philosophy engages in experiment within the purview of thought. The quotation above shows that philosophy satisfies a basic requirement of any scientific investigation which is observation. By observing the contradictions of existence, philosophers just like scientists, seek to offer explanation for phenomenon observed. Philosophers develop theories which are then subjected to test through thought experiment because their method of investigation relies on the logical analysis of concepts employed in the understanding of reality. Within this framework, the argument that philosophy is devoid of experimentation is misconceived and misleading because the idea of experiment has been unfortunately limited to empirical interpretation. The idea of experiment, (as we shall see in the course of the discussion in this paper) is beyond empirical understanding. But what is the nature of philosophical analysis? Is there any form of experiment in philosophical analysis? If yes, what is its nature and place in philosophical analysis? If no, how are philosophical theories tested?

### **The Concept of Experiment**

There is a common image that is associated with scientists – the image of men and women in immaculate white gowns in their laboratories. This image conjures the basic means by which ordinary people recognize scientists and how the scientists themselves come to understand the world in the minds of ordinary people. This image is made alive by experimentation. The idea of experimentation is a long-standing tradition in the natural sciences. It began with the disillusion of some modern philosophers to theory without practice; Francis Bacon (1561-1626) who Stumpf (1994, p. 220) calls “advocate of modern science” was vehemently against the “old school philosophy” of the ancients because; science was being mixed up with superstition, unguided speculation and theology. He therefore advocated wiping the slate of human knowledge clean and starting over again using a new

method for assembling and explaining facts. According to Stumpf (p. 222) Bacon considered the mind as being like a mirror which had been made rough and uneven both by natural tendencies of passions as well as by the errors of traditional learning. In such a condition, he imagined that the mind could not reflect truth accurately, thus a need for a method that could suffice. His method and expectation was to make the mind's surface clean and smooth and to supply it with new instrument so that it could observe and understand the universe accurately. For him:

In order to penetrate into the inner and further recess of nature, it is necessary that our notion be... derived from things in a more sure and guarded way. This way includes ridding oneself of his prejudices and looking at things as they are: we must lead men to the particulars themselves and their series and order. To help and guide observation is necessary to supply rectifications to correct its errors; and this I endeavour to accomplish not so much by instruments as by experiments, for the subtlety of experiments is far greater than that of sense itself. (Cited from Stumpf 1994, p. 223).

That the subtlety of experiments is greater than that of sense cannot be denied going by the avalanche of facts that is daily discovered by scientist in their laboratories and in the field. The success of the scientific method is impressive and to a large extent has cast doubts in the minds of the philosophically unlearned as regards the usefulness of any discipline that does not apply the methods of science in its research processes and findings. But what is an experiment? An experiment is a procedure carried out to verify, refute or validate a hypothesis. Experiments provide insight into cause-and-effect by demonstrating what outcomes occur when a particular factor is manipulated. There are many types of experiments because there are many different objectives that scientists have when they engage in experimentation. Some of these experiments are intended to find out information that was previously unknown while others are designed to test rival claims and hypothesis and some others lead to the production of new products. There are however a number of features which a good experiment should have. These features – called epistemic values of experiment, according to Boersema (2009, p. 68) include:

- (1) Accuracy – a good experiment should yield accurate and clearly measurable results.
- (2) Utility – a good experiment should provide useful information

- (3) Consistency – a good experiment should be consistent with already accepted procedures or information or theories.
- (4) Replicability – a good experiment should be able to be repeated to yield the same result like the first.

These epistemic values in a way lead to questions as to whether experiments are varied. In other words, can one experiment be used for all types of investigation?

### **Types of experiment:**

1. Methodological experiments: these type of experiments aims to develop or improve some particular technique or inquiry
2. Heuristic experiment: this is one that aims to provide leads for further or new lines of inquiry
3. Fact finding experiment: this is an experiment intended to determine some particular or well-defined phenomenon.
4. Creative experiment: the type wherein an attempt is made to create some new phenomenon.
5. Nomological experiment – this type is used to test laws or general hypothesis with the aim of confirming or disconfirming them.
6. Simulation experiments: these types of experiments are designed to learn from models, how the real world operates
7. Illustrative experiments: these are experiments that are designed to train students about science and experimentation.
8. Thought experiment: this is where experiment is performed only conceptually and, in most cases, using analogy.

Fortunately, this paper is aimed at illustrating; using several analogies with philosophical analysis to show that philosophy just like the sciences carry out experiment. But for philosophy, the mind is the laboratory and nature is the specimen.

### **The Nature of Philosophical Analysis**

At the beginning of his work *Metaphysics* Aristotle declared that “all men by nature desire to know” (quoted from Bartlett 1992, p. 27). This natural human disposition to knowledge is an existential imperative as people cannot live a meaningful life in an environment that they are cognitively detached from. In their attempt to understand the world and their place in it, people develop assumptions that form

the basic epistemic framework within which they think. “Assumptions are beliefs, often unstated, that underline...point of view” (Chaffee, 2005, p. 18). These assumptions are internalized unthinkingly without any form of rational scrutiny. In this way, they form our belief system with which we interpret the world and determine our choices. The problem here is that since our belief systems are based on taken-for-granted assumptions, they tend to be inconsistent and full of contradictions. And this ultimately undermines the quality of our lives as we may ceaselessly pursue false ideals, worship false gods, and nurture false hopes.

In a bid to provide rational justification for our basic assumptions, philosophers subject those assumptions to critical examination through pernicious questioning and logical analysis. This philosophical exercise is predicated on the emergence of philosophical problems which arise whenever it seems impossible for a certain concept to apply to certain things or situations. For instance, “the mind-body problem arises because it seems to be impossible for physical objects to have minds (Schick and Vaughan 1999, p. 10). In response to this problem, philosophers put forth theories in the form of conceptual and logical analysis in order to identify the conditions for having a mind. The focus of the theories is to explain the logical relations between the concepts ‘mind’ and ‘physical object’. This involves the breaking down of the concepts into their basic elements in order to avoid ambiguities and misapplication. Thus, the effort by philosophers to analyse the meanings of a word is with the view to verifying some of these meanings while discarding others. But, how are philosophical theories tested? In response to this question, Schick and Vaughan opine that: “Because philosophical theories explain the logical relations between concepts, they cannot be tested by physical experiments in a scientist’s laboratory. But they can be tested by thought experiments in the laboratory of the mind” (1999, pp. 14-15).

The point being stressed in the above is that philosophical theories explain how it is possible or why it is impossible for a concept to apply to something by identifying the conditions for applying it. To test the veracity of such theories, philosophers construct thought experiments to determine whether the conditions identified hold in all possible situations. If it is possible to conceive a situation within a thought experiment in which the conditions do not hold, it means there is a reason to reject the theory. To illustrate this point, let us consider, for example, the traditional theory of knowledge which states that knowledge is justified true belief. That is, it can only be said that Mr. x knows a proposition p if and only if:

1. P is true
2. Mr x believes that p is true

3. Mr x is justified in believing that p is true

In response to this theory, Edmund Gettier (1963) in his paper, “Is Justified True Belief Knowledge?” presents the “Job seekers thought experiment” that conceives a situation in which someone Mr Smith satisfies the three conditions in the traditional theory of knowledge but still fall short of knowledge (pp. 121-123). With this counter-example, Gettier successfully shows that it is possible to have justified true belief without having knowledge. This means he conceives a situation that runs counter to or contradicts the traditional theory of knowledge. This allusion to the Gettier’s case shows that in the course of philosophical analysis, philosophers’ subject theories to experiment in the form of imaginary situations in which conditions for applying a concept are met. If the concepts in the theory apply as predicted, the test is successful. If not, it is unsuccessful.

The above explains why philosophy as an intellectual discipline is analytic in form, focus as well as practice. An analytic discipline is one that engages in analysis or that analyses. Analysis is “the process of breaking a concept down into more simple parts, so that its logical structure is displayed (Blackburn 2008, p. 13). To analyse therefore means to separate into constituent components or elements; that is, to determine the essential features that defines the phenomena or concept in question. Analysis is thus a critical and reductive process. It is reductive in that it reduces phenomena or concepts to their most basic components and critical in the sense that the process is rigorous, systematic and logical. Critical also suggests that analysis tries in some sense, to discover the truth about the phenomena in question. Philosophical analysis therefore is the process of giving precise definitions to concepts and to formulate, isolate and criticise argument on logical grounds. This implies that philosophical analysis involves three basic tools which are:

1. **Conceptual Analysis:** This is the process that allows one to give, or to determine a concept’s precise definition. It consists primarily in breaking down or analysing concepts into their constituent parts in order to gain knowledge or a better understanding of a particular philosophical issue in which the concept is involved. For instance, the problem of knowledge in philosophy involves various key concepts such as belief, truth, justification, subjectivity and objectivity as well as the knower-known relationship. The method of conceptual analysis tends to approach the problem of knowledge by breaking down these key concepts and showing how they interact.
2. **Logical Analysis:** This is the process of following rules and procedures that allow one to formulate and evaluate rational arguments. It essentially

involves the ability to evaluate an argument in terms of its validity or invalidity, its soundness or unsoundness, to analyse the logical relations between and among propositions, to determine necessary and sufficient condition of a concept, to identify the form and structure of an argument, and also expose logical fallacies or errors in reasoning. Thus, logical analysis simply means the ability to test arguments for logical consistency, to understand the logical consequences of certain assumptions, and to distinguish the kind of evidence employed in the justification of a claim.

3. **Thought Experiment:** This is an imaginary situation designed to determine whether a claim is necessarily true. (Schick & Vaughan 1999, p. 17). It is a devise of imagination used to investigate the nature of things and also a mental assessment of the implications of a hypothesis. In conducting a thought experiment, some imaginary situation is set up and is intuitively observed to see what happens. Then, appropriate conclusions are drawn. This means that thought experiment involves the framing of a complicated concept into a story or situation in order to lay bare the inherent intricacies in an intuitive way. Since thought experiment is an imaginative activity which takes place in the mind, it follows then that the mind is a laboratory where ideas are analysed and tested. In other words, thought experiments resemble real experiments, except that they are experiments in the mind. In effect, just as chemists perform experiments with test tubes to study the effects of certain chemical and to see if their theories hold up, philosophers perform thought experiments to analyse the implications of certain ideas. That is, philosophers utilize thought experiments to test philosophical theories in order to determine whether the conditions identified hold in all situations. Thus, thought experiment is a test device for philosophical theories and ideas.

### **Selected Thought Experiments in Philosophy and their Significance**

Philosophers develop theories to explain how it is possible (or why it is impossible) for a concept to apply to something by identifying the conditions for applying it. However, thought experiments are developed to test such theories by determining whether the conditions identified hold in all possible situations. If it is possible to conceive a situation in which the conditions do not hold, then there is reason to reject the theory. In philosophy therefore, thought experiment is an imaginary situation designed to determine or test whether a claim is necessarily



true or false. Here are some philosophical thought experiments, with their significance:

### **1. The Prisoner's Dilemma**

This thought experiment is a classic game theory in which a suspect is confronted with a rather difficult decision: stay silent or confess to the crime. The dilemma here is that the suspect does not know how their accomplice will respond. The American mathematician Albert W. Tucker formalized the game theory with prison sentence rewards and named it "the prisoner's dilemma". He presents it as follows:

Two members of a criminal gang are arrested and imprisoned. Each prisoner is in solitary confinement with no means of communicating with the other. The prosecutors lack sufficient evidence to convict the pair on the principal charge, but they have enough to convict both on a lesser charge. Simultaneously, the prosecutors offer each prisoner a bargain. Each prisoner is given the opportunity either to betray the other by testifying that the other committed the crime or to cooperate with the other by remaining silent. The possible outcomes are:

- If A and B each betray the other, each of them serves two years in prison.
- If A betrays B but B remains silent, A will be set free and B will serve three years in prison (and vice versa).
- If A and B both remain silent, both of them will serve only one year in prison (on the lesser charge).

(Retrieved from Wikipedia Feb.2020)

The prisoner's dilemma thought experiment illustrates the puzzle involved in the conflict between individual and group rationality. It shows that a group whose members pursue rational self-interest may all end up worse off than a group whose members act contrary to rational self-interest. Furthermore, it illustrates the perplexity involved in getting rationally selfish agents to cooperate for their common good. This thought experiment teaches that we may not always make the "right" decisions when confronted with insufficient information, especially when other self-interested-decision making-agents are in the mix.

### **2. The Category mistake**

This thought experiment was formulated by the English philosopher - Gilbert Ryle to illustrate the linguistic confusion behind the mind-body problem. According to him:

A foreigner visiting Oxford or Cambridge for the first time is shown a number of colleges, libraries, playing field, museums, science departments and administrative offices. He then asks “but where is the university? I have seen where the members of the Colleges live, where the Registrar works, where the scientists experiment and the rest. But I have not yet seen the University in which reside and work the members of your university.” It has then to be explained to him that the university is not another collateral institution, some ulterior counterpart to the colleges, laboratories, and offices which he has seen. The university is just the way in which all that he has already seen is organized. When they are seen and when their coordination is understood, the university has been seen. His mistake lay in his innocent assumption that it was correct to speak of Christ Church, the Bodelian library, the Ashmolean Museum and the university, as if “the university” stood for an extra member of the class of which these other units are members. He was mistakenly allocating the university to the same category as that to which the other institutions belong (1949, p. 16).

Ryle formulated this thought experiment for two reasons. On the one hand, it rejects Cartesian dualism - “the doctrine that mental states are states of an immaterial substance that interacts with the body”. On the other hand, it affirms logical behaviourism which is “the doctrine that mental states are behavioural dispositions” (Schick & Vaughn 1999 pp. 15, 49). But in Ryle’s view Cartesian dualism is mistaken because it argues that minds could exist independently of people’s behaviour. It is therefore a category mistake to suppose that the mind is an independently existing entity from bodily behaviour. As pointed out in the thought experiment, universities are not things in the same sense as things.

### **3. God’s Plan:**

This thought experiment was formulated by Robert Nozick to illustrate the logical puzzle involved in the theistic claim that life is only meaningful if God exists. It is argued by some theists that without God, life would be meaningless. They contend that life is worth living, if and only if we are part of a divine plan. Therefore, doing what God planned for us makes our lives meaningful. In response to this theistic conception of the meaning of life, Nozick asked us to consider this thought experiment:

Suppose God decides to reveal to us why He created us. Everywhere on the planet, everyone hears a deep, beautiful voice resonating in their heads: “Now, my children, the time has come for me to reveal why I created you. In a week, a band of intergalactic travellers will be passing through your solar system. I arranged their trip and it just so happens that the only thing they can eat are human beings. (I designed them that way). So, I created you as a source of food for them. When they land, I want you to walk into their food processing chambers and turn yourself into people Burgers (1981, p. 586).

In the above thought experiment, Nozick illustrates an instance in which being in God’s plan does not necessarily guarantee living a meaningful life. This is because it is hard to see if meaning must be bestowed from an external force or from within. Should the meaning of our life be defined for us or be determined by ourselves. If one’s sole purpose for living were to serve as food for someone else, would being eaten by super advanced aliens make your life meaningful? If this is the case, then, the theistic conception of a meaningful life becomes problematic and that gives us the freedom to define for ourselves what constitutes a meaningful life.

#### **4. Zeno’s Paradox of Bisection**

This thought experiment was formulated by the ancient Greek philosopher Zeno of Elea to prove and explain the impossibility of motion. Zeno was interested in defending Parmenides’ philosophy of permanence. The question “how is it possible for something to remain the same even in the face of change” seeks to unravel what actually persists in the face of constant changes experienced through time. The problem is that if something changes, then it is different, and if it is different, then it is no longer the same. In response to this, Zeno argues that maintaining identity through change is logically impossible. He therefore formulated some thought experiments to show that the concept of motion (and thus change) involved a contradiction. One of such thought experiments is the paradox of bisection which is as follows:

Suppose you are in a stadium at a given distance from the exit door. Then you can never get out of the stadium because before you reach the door you must reach the point halfway there. But before you can reach the halfway point, you must reach a point halfway to that. And since it takes some finite interval of time to move from one point to another, and there are an infinite number of halfway points, it would take you an infinite time to pass through them all and get out (Brumbough 1981, p. 60).

The above thought experiment simply shows that motion is an illusion and as such change is impossible. Zeno did not deny that people seem to move from place to place. What he denies is that the way the world seems is an accurate reflection of the way it really is. In this thought experiment, his major thesis is that whatever involves a logical contradiction cannot exist. And because motion involves a logical contradiction, it cannot be said to exist. Therefore, nothing changes, everything remains the same.

## Conclusion

We have tried in this paper to disprove the notion held by some scholars that philosophy does not or cannot perform experiments. From our exposition, one can easily infer that the perception of philosophy as an abstract and speculative-only discipline is misplaced. These perceptions arise out of the attempt to situate the overall understanding of the world and our situation in it on the fulcrum of a few types of methods of experiment. In dealing with this, we showed through thought experiments that philosophy clarifies our thought process and refines the basic concepts that we use to understand reality.

The paper also argued that although the speculative and qualitative nature of philosophical inquiry may make the discipline appear esoteric and its problems *unexperimentable*, however, a deeper look at the nature of philosophical analysis reveals that philosophical problems and theories can be examined with the methods of conceptual clarification, logical argumentation and can be tested with the aid of thought experiments.

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