

## Chapter Three – Applying the Concept of ‘Sets’ to the Subject:

### *The Noncompetitive natures of Skepticism and Empiricism*

“The greatest deception men suffer is from their own opinions.”<sup>1</sup>

- Leonardo da Vinci

After the Greco-Roman era philosophy seemed to veer into Christian thought for a very long time, thought in the Middle Ages was wrought with this kind of theological slant. Scientists were often seen as heretics and independent thought is considered by many only to have resumed with the retranslation of those Greek and Roman philosophers in the late-Medieval period into the languages of the day. The texts had been preserved in Irish monasteries and Muslim universities until this time, however once ancient European philosophy was reintroduced to the Europeans free thought began to pick up where it left off.

What is interesting here is that while this period is today sometimes called the Dark Ages, at the time this period was considered an age of light. This is due to the different perspectives of spirituality and science that developed in the time of the Greeks and that had continued throughout the rest of recorded history. While the scientifically inclined populace of today refers to the age as the Dark Ages, the term was in fact developed by the medieval historian Petrarch and only in the 1330s. The term was not used during the

---

<sup>1</sup> Da Vinci, Leonardo. *The Da Vinci Notebooks*. 2005. Arcade Publishing. Page 179.

height of the middle ages. Petrarch's assertion that is widely believed to have led to this characterization of the Middle Ages was his statement that during this time, "amidst the errors there shone forth men of genius, no less keen were their eyes, although they were surrounded by darkness and dense gloom."<sup>2</sup>

In fact according to an article by Dr. Theodore Mommson, during the Middle Ages it is speculated that Antiquity was in fact considered to have been the age which the people referred to as 'dark' due to its lack of Christianity. Petrarch developed the name of the Dark Ages by reversing this assumption, holding the cultural achievements of Antiquity above the religious fervor of the middle of the first millennium after Christ. The proper term to be used today would be Middle Ages, not Dark Ages, referring to the time between the Classical Antiquity and the Modern Age. The concept of a 'dark age' is symptomatic of that split between spirituality and science which originated during Classical Antiquity. Thus this analysis moves into the Modern Age.

In this Modern Age one philosopher typically stands out at the beginning of what would become known as the Age of Enlightenment that Derrida would centuries later malign: the French thinker Rene Descartes. Here is what brings us to our first analysis of how the differentiation between categories has created fundamental flaws in our body of knowledge. The specific text of interest here is DesCartes's famed *Meditations*. The problem concerns the very basis of one of the next real splits within philosophy itself, between empiricism and the skepticism about a real world.

---

<sup>2</sup> Mommsen, Theodore. Petrarch's Conception of the 'Dark Ages'. *Speculum*, Vol. 17, No. 2 (Apr., 1942), pp. 226-242

In Rene Descartes' first meditation, Descartes mentions that while one is asleep it oftentimes becomes impossible to detect one is not awake. He states, "When I consider these matters carefully, I realize so clearly that there are no conclusive indications by which waking life can be distinguished from sleep that I am quite astonished, and my bewilderment is such that it is almost able to convince me that I am sleeping. So let us suppose now that we are asleep and that all these details, such as opening the eyes, shaking the head, extending the hands, and similar things, are merely illusions; and let us think that perhaps our hands and our whole body are not such as we see them."<sup>3</sup>

This statement along with the rest of the Meditations launched a new ship into the seas of thought, helping to make Descartes the father of modern philosophy. Yet there are some that would take this inability for mankind to recognize the state of their reality – whether concerned with the waking world or ones own dreams – as a counterpoint to empiricism. It has been said that this state of uncertainty negates all certain knowledge, that there can be no certainty that an external world exists and that knowledge itself can never be certain. While it is true that the fact that our world could be a perfect dream, making the certainty of an external world less than absolute, this 'dream hypothesis' does not necessarily negate the certainty of knowledge and value of empiricism.

Take the following example about a building and its architect. When an architect creates a building, there are many aspects involved. The architect develops a detailed blueprint for the builders to follow; all of the materials needed for construction are acquired and

---

<sup>3</sup> Baird, Forrest E. and Kaufmann, Walter. 'Rene DesCartes' in Philosophy Classics Volume II: Modern Philosophy, 4<sup>th</sup> Edition. 2003. Prentice Hall. Pages 20-21.

assembled; there are companies hired to do the actual construction. Beyond that, there is the process of developing the actual ideas which will be put down onto paper in creation of the blueprint. The architect must be hired, there must be interest in creating a building in the first place and investors must be willing to finance the whole thing.

Once the building is completed though, the existence of that building sheds the immediate existence of its creation process. The completed composition of that building continues to exist if its blueprints are burned in a fire. If the architect dies, the building is still able to continue its existence, its composition unchanged. The construction workers are no longer a part of the building's existence. In addition, other companies come into the building and set up office, workers walk about the floors and hanging plants absorb sunlight in corner offices.

The creation of the building included the end composition of the building itself. All of the materials used in its creation, the idea for its form and the completed building itself. However once the building itself had come into existence, the composition no longer included its creation within its immediate composition of existence. The creation of the building included a larger set of variables than the composition of the building once it came into existence. All of the variables in the building's composition were included in the creation set, but the composition set does not include all things in the creation set. In this sense, the creation of the building is different and separate from the composition of the building. It follows that the creation of the building is not unlike the creation of anything else.

The argument for composition sets and creation sets takes the following form. If something is created, then it follows that a creation comes either into existence or into the non-existence, regardless of the creation's materiality. This is the logical basis of the difference between a creation set and a composition set. That which creates in this argument is the creation set; that which is created is the composition set. If there is a creation set, then a composition set follows.

For a set to be a composition set it must include three different qualifications:

- 1) The set must be constant in form or absence of form
- 2) The set must have constant laws or a constant absence of laws
- 3) The set must be smaller or equal to the set required or utilized for its formulation

For a set to be a creation set, it must include three qualifications of its own:

- 1) The set must include at least one composition set
- 2) The set must formulate composition sets in a series of at least one
- 3) The set must be larger than the set it formulates, otherwise it also becomes a composition set

The Modus Tollens analysis of the argument that 'if creation set, then composition set' states that without a composition set there cannot be a creation set. This is true because if

the creation set does not lead to a composition set that is different than the creation set, then the creation set becomes a composition set. That the creation set exists or is in non-existence, then it itself has a composition which is the composition set. Therefore as the creation set leads from the prior existence of itself in series, the creation set becomes that which is composed. This is tautological (If A, then A), and thus as rule three in the rules for creation sets states, the creation set becomes a composition set, maintaining the argument that a composition set must come from a creation set. If there is no composition set, then there cannot have been any creation set because even a creation set without a distinctive composition set becomes its own composition set. No composition set means no creation set. The 'if, then' argument in this case holds as logical.

A creation set could take many forms, including the a hypothetical dream world; a forming; thinking; a material world; a mad scientist's experiment; a computer Matrix; a hallucination; a world determined by God; an existential determinism; a non-determined world created by God; an existential non-determinism; a soft determinism; a rational world; a dualistic world; an idealist world; an alien research farm; metaphysics; natural laws at work; Heidegger's interplay between being and nothing; etc.

A composition set can include a possibly infinite set of things, including present existence; a form; though; immediate content; immediate context; immediate environment; potential kinetic energy; immediate states of energy; natural laws at rest; natural laws in immediate states of working; immediate knowledge; creation sets at rest in a constant state—if a creation set becomes a stable state of existence, then it becomes

knowable or unchanging yet unknowable; skepticism cannot argue for undetectable changes in the state of a creation set if this one possible world of an unchanging creation set is the world that exists.

This issue of individuated composition sets and creation sets applies directly to Descartes' Dream Hypothesis. In Descartes' first meditation, he develops what has become known as the Dream Hypothesis. In this Dream Hypothesis, Descartes provides an image of himself sitting by a fire with a letter in his hand, a situation in which he claims there is no way of the senses deceiving him.<sup>4</sup> Descartes argues that even in this situation, it would be possible that he were dreaming the situation in his head during sleep, and that therefore he cannot prove that he is in fact sitting by the fire, or that an external world can be absolutely proven to exist at all. Descartes claims that the external world could be a dream of an external world, and that therefore it is impossible to tell whether one is experiencing an external world or if they are merely dreaming everything they see.

This argument hinges on the idea that the composition of the dream world and the real external world are indecipherable. The logical form of the argument if we dream of a real world, then we sense a real world and if we experience a real world, then we also sense a real world. However the dream of a real world does not equal the experience of a real world. Therefore one cannot say that they have certainty of the real world, only that either there is a dream of a real world or a real world, and our perception of a real world.

---

<sup>4</sup> DesCartes.

Yet this argument does not invalidate the certainty of our perception of a real world—that in both scenarios not only exists but is equivalent.

In order for the argument to remain valid, all things found by a person in the composition of a real external world must also exist in their dream of that real external world.

Otherwise, the world would become decipherable and the hypothesis negated. The only difference lies in whether that perceived world was created by nature or by one's own imagination. This is where the critical flaw lies within the application of Descartes' argument to an evaluation of empiricism or the existence of true knowledge.

His question is a question of creation, not of composition. According to the argument, the composition of the situation in both scenarios is identical; it is the way in which each scenario has been created which changes between the scenarios. If it were a dream, there would be human thought and hallucination which added into its creation. If it were real life, there would have been an immediate past that resulted in the situation's occurrence, as well as all of the materials required for assembly. Yet the composition in both scenarios is the same according to Descartes, again it is only the creation process for each scenario that differs. Therefore just as the building stands regardless of how it was created, the scenario stands in identical composition regardless of how it was created. Descartes is still by a fire with a letter in his hand, whether or not the world this occurs in is merely a dream.

Skepticism and Empiricism differ at this juncture in a way in which they are no longer competitive. Empiricism is the study of the composition of a scenario, something that the dream hypothesis does not deny, saying instead that any such scenario's composition is constant. The skepticism of the Dream Hypothesis argues that one has no way of knowing how that composition came to be created, and that there is no way of knowing with absolute certainty the method in which it was created. It is true that we cannot empirically know with any certainty the method of creation for any scenario; however the creation of any scenario is a larger set than the composition of the scenario—there is a difference between the creation set and the composition set of the scenario. The study of the smaller set of composition does not preclude the study of the larger set of the creation process, making it possible to be both an empiricist in terms of the composition of a scenario or object, and a skeptic in terms of how that scenario or object came into existence – whether or not it occurs in a real external world.

Whether there is an external world outside of our minds or not has no bearing on empirical study in this sense. In order for there to be any doubt that there is an external world the alternative to a real world must match our perception of an external world exactly, which means that either way we are studying the exact same thing and will come out with the exact same results if we are concerned only with the composition set. So this points to the possibility of 'truth' in spite of the dream hypothesis, but is that possibility a strong one?

Yes, because the dream hypothesis requires that during the dream reality the brain must be a large part if not the only part of the creation set. Similarly, while awake the brain plays the same role in the creation set of reality by registering and interpreting stimuli through the sense organs and the brain's functioning in response. This dual role of the brain elevates the brain to the level of the creation set in this comparison of dream reality and physical reality. Therefore the brain can know of a body of truth for one and a separate body of truth for the other. As these bodies are exclusive to themselves, the fact that both are not always retrievable at the same time – the short term memory that propels dreams forth is often forgotten upon waking, and real world comprehension can elude the brain in sleep (the very basis of the dream hypothesis) – does not preclude the non-existence of either. It is merely an observation about the brain and its role in two distinct composition sets. Truth in the dream universe is predicated on the understanding of a dream's cohesion and the awareness of the dreamer of the dream, much as truth in the reality of the wakened is predicated on the constants of that world and the experiencing agent's understanding of the properties of those constants.

The Brain in a Vat hypothesis by Hilary Putnam adds a second alternative to an existence of an external world. In this hypothesis, the 'external world' is in reality only the product of a scientist poking and prodding a human brain in a vat of liquid. Putnam reveals that the idea is incoherent in his evaluation of the concept, and here again the idea becomes irrelevant.<sup>5</sup> A Brain in a Vat's creation of the world is still a larger set than the composition set with which empiricists should be concerning themselves. The goal is not to prove whether or not the composition set is true, but how it is true. Skepticism merely

---

<sup>5</sup> Putnam, Hilary. Reason, Truth and History. 2004. Cambridge University Press. Pages 1-14.

points out that any composition's set creation set cannot yet be known, however this does not negate the existence of the composition set or any serious study of the composition set outside of a regard for its larger creation set. Again, a study of the subset does not preclude a requisite evaluation of the larger set.

If the composition of a scenario does not equal the creation process of a scenario, then although it is possible to disprove the certain existence of an external world as a scientist assumes it exists, it is not possible to disprove the existence of just 'a world'. Therefore skepticism of this sort in no way interferes with the validity of empirical study, and empirical study in no way interferes with the validity of skeptical thought of this sort. For empirical study it should not matter whether a dream, a mad scientist or God created the situation you are in/observing, the only thing that matters is what you can decipher from its composition.

It is pertinent to add that just as the building, after its construction, was soon filled with workers, offices and other things, so can any scenario change after its creation. This of course requires further creation methods to alter the scenario's state. In a dream, the scenario will change through the creation of the imaginative processes which created it. If you are a brain in a vat, then the same electric processes will cause that altering method of creation. If you exist in a material world without such manipulation, that world's laws and dynamics will cause the change.

During a continuous situation, it is possible to analyze the method of change in composition as part of the composition itself. In a continuous situation the world state must remain the same, as changing between any of the causes of creation half way through will force you to exit the prior analysis and fall into a new reality, thus ending the empirical study. If you are able to complete your analysis, then your empirical study of that change in the composition also lies outside the bounds of Skepticism of this sort because it is within a constant creation set. The state of the world's creative engine has not altered, therefore any knowledge gained during that constant world state can be considered valid in accordance to that world's laws and dynamics.

Some people may argue that the mere fact that you may be dreaming and then awake means that you can never have absolute certainty in your knowledge. However when you are empirically studying a world created by one process and then are thrust into another, what you studied in the first world remains valid to that first world and what you study in the second world remains valid to that second world. The fact that there are two or more worlds and you contain two or more bodies of empirical study does not negate the value of those bodies of study to their respective worlds.

This idea that knowledge obtained within a single sequence compliments to work of G.E. Moore, whom argued that he could prove the existence of an external world merely by raising his two hands. Moore states that his argument is simple: he states his proof of an external world is proven, "By holding up my two hands, and saying, as I make a certain gesture with the right hand, 'Here is one hand', and adding, as I make a certain gesture

with the left, 'and here is another'... I *knew* that there was one hand in the place indicated by combining a certain gesture with my first utterance of 'here' and that there was another in the different place indicated by combining a certain gesture with my second utterance of 'here'. How absurd it would be to suggest that I did not know it, but only believed it, and that perhaps it was not the case!"<sup>6</sup>

The validity of his argument under the conditions of empirically studying a composition set, not a creation set, is improved because within any continuous study of one world, the results can be taken as valid for that world during that period of continuous time.

Whether the external world Moore's hands were raised in was created by nature or a dream does not matter, for the immediate knowledge is valid within that specific composition set. When Moore continues to say that because he also held up his two hands not too long ago he has evidence that an external world existed then too, he is also in line with the criteria of acquiring immediate knowledge of a world's composition set. Because he remembers raising his hands in the same world composition, then he has witnessed the continued existence of that specific external world. If the memory was part of a different creation set, it does not negate the existence of two bodies of empirical knowledge but only the idea that the creation set of any composition set is constant.

Each world is a different composition, and thus incurs its own existence respective of the other however there is one issue that requires further analysis, and that issue is the possibility of changing from one world to the other without knowledge of your transition between compositions. In this scenario it is possible for one to be slightly altered and

---

<sup>6</sup> Moore, G.E. 'Proof of an External World' reprinted in G.E. Moore: Selected Writings. 1993. Routledge. Page 166.

thus pieces of your empirical study could become false if one assumes that a series of observations must have occurred in the same composition set without a change in the creation set. This in itself however is a method of change similar to workers entering the building under their own power or your mind creating a new facet for a composition in a dream.

It will be very difficult for anyone to track all changes in any composition whether the changes occur in one world or in a transition between two, therefore immediate knowledge may be possible however constant knowledge is nearly impossible even if only one single world exists. In any empirical study, one should only claim they have full knowledge of what they have studied to completion. Even then one is never able to say with certainty that anything is definitely constant, however they are able to say that they observed something in empirical study and at the time it was believed to be the way things were. Within each moment of observation they were within a composition set that cannot be negated by skepticism, so whether there are multiple bodies of knowledge or just one, every observation or experience is 'true' within its respective sphere.

Another philosopher who has addressed the Dream Hypothesis is Barry Stroud. In his analysis, Stroud finds that Descartes was correct in assuming that he must know that he is not dreaming if he is ever to know something about the external world. Stroud uses the example of a goldfinch and a canary, stating that if one recognizes a bird as a goldfinch when it is really a canary, then they have acquired false knowledge. Similarly, if one dreams something instead of witnessing it in an external world, then it is also false

knowledge. According to Stroud, if one cannot ever tell between the two, then there is a possibility that all knowledge could be false.<sup>7</sup>

This statement assumes that knowledge from one composition within a first creation set must be considered as consistently true knowledge about a second composition set within a second creation set, which is not a requirement when the distinction between composition sets and creation sets is applied to the problem. While Stroud is correct that knowledge of one composition set is not necessarily cohesive with knowledge of a second composition set, this does not refute the idea that immediate knowledge about the first composition set is valid to that first composition set within that first creation set, and immediate knowledge about the second composition set is valid to that second composition in any other creation set.

One is able to have immediate knowledge which is certain and valid to the respective world it was observed in. The difference between the creation method of a scenario and the composition of a scenario are two different sets, and though the scenario's composition set is an inextricable part of the creation set, the composition set does not have to include any of the creation set besides from its own composition. To question how a composition set was created or the state of the world a composition set occurs within is not to question the existence of the composition set itself or the validity of studying it empirically, it is an evaluation of the creation set. The dream hypothesis does not refute the certainty of immediate knowledge within a composition set; it only provides an example of how a person could have two different bodies of immediate knowledge

---

<sup>7</sup> Stroud, Barry. *The Significance of Philosophical Skepticism*. 1984. Oxford University Press. Page 25.

garnered from two different composition sets identical to one another and differed only by their respective creation set.

Descartes goes on in his fourth meditation to state that, “I see that I am, as it were, a mean between God and nothingness.”<sup>8</sup> This statement suits the idea of a composition ready for discovery within an unknowable concept of creation—a knowable composition set within a possibly unknowable creation set. That the latter is perhaps truly unknowable in our present state should not deter our search for immediate knowledge, even if it may be fleeting. Skepticism and empiricism in this way are not competitive ideologies, they study separate things and do not disagree on the issue of a yet unknowable creation set; skepticism does not refute a composition set’s truth; empiricism does not refute a creation set’s position as yet unknowable. Here is an example of how the split between different ideologies in the foundation of modern knowledge can be unjustified. The mystery and the real do not part ways here; empiricism and skepticism do not provide crossroads in competition, but rather two different and non-conflicting paths.

The idea of non-equivalence between composition sets and creation sets extends into many different philosophical problems. For example, a large contingent of the philosophic body has debated the idea that ‘free will’ and ‘determinism’ are competitive hypotheses. While determinism is a creation set, free will is not. Determinism is the idea that scenarios develop because they are predetermined, that predetermination becomes

---

<sup>8</sup> Baird, Forrest E. and Kaufmann, Walter. ‘Rene DesCartes’ in Philosophy Classics Volume II: Modern Philosophy, 4<sup>th</sup> Edition. 2003. Prentice Hall. Page 39.

part of how the scenario is created and thus part of the creation set. Predetermination however is shed after the composition set is freed from its creation set. Questions of the composition set are about how the composition set 'is', not how it came to be because that would pertain to the creation set. Whether a thing is predetermined or not would not change the form of the composition set as it is after it has been created.

Free will is part of the composition set as it is fundamental to organisms within a composition set if it exists. While predetermination is not a function within an organism but rather a creation process for the composition set of the organism, free will would be a function within the organism with its composition set—the function to make change.

What makes the question a difficult one is that by stating this we see the function of free will to become a part of the creation set.

Yet the difficulty is easily eliminated. Free will exists as either a feeling or a reality, whether or not one does have free will, they certainly feel as if they do. Free will as it pertains to the composition set—the appearance of the concept we call free will—could be predetermined. It could be predetermined to exist or predetermined to be falsely experienced. It would not change the composition set at the time.

If free will does exist then it can be seen as becoming a bridge between the creation set and the composition set; something fundamental to the composition set that is not shed as the creation set is taken away yet is an intricate part of the creation set's ability to create. The function of a free will to change however does not become a paradox. If the

composition set is predetermined, then the free will is not part of any creation set and only part of the composition set as a faulty feeling of connection to the creation set. This would make free will a part of the composition set only, not a part of the creation set and thus the two subjects of free will and determinism would be non-competitive.

If the world is not predetermined that non-determination would no longer be a competitive idea to free will either. Free will becomes part of the creation set and the feeling of free will remains an equal and equivalent part of the composition set, only that it is no longer a faulty feeling but a truth baring one. The function of the parts of the composition set to change may indeed then become a bridge between the creation set and the composition set, however it is a non-paradoxical bridge and would not create two competitive ideas.

The creation set may indeed have latent connections with the composition set which are cannot be severed in a pure look at the composition set after the creation set has been removed. Yet in the cases of skepticism versus empiricism and free will versus determination, any such latent connection or 'bridge' would be non-effectual to the existence of either hypothesis and non-paradoxical. The individuation of the composition set and the creation set involves an increased complexity within their relationship however what is revealed from those individuations remains logical despite the possible complexities brought up by the existence of latent connections between composition sets and their larger creation sets.

The use of composition sets and creation sets should serve to remove the paradoxical character of many debates between differing worldviews, especially debates whose root lies partially in a mistaken epistemology. Separating ideas out into their respective roles as creation sets or composition sets should allow the arguments for the truth of previously competing ideologies to now become noncompetitive. In terms of the argument's ramifications for empiricism, perhaps Ludwig Wittgenstein said it best in his *Tractatus Logico-Philosophicus* when he stated, "The propositions of logic describe the scaffolding of the world, or rather they represent it... We have said that some things are arbitrary in the symbols that we use and that some things are not. In logic it is only that latter that express."<sup>9</sup> Logic, the basis of empiricism, is concerned only with the composition – 'scaffolding' – of the world, while the world's creation is very much that arbitrary and unknowable aspect that lies outside. We can study the scaffolding, yet cannot know of anything outside of it, much as the early Wittgenstein does claim.

What thus becomes the next question is whether or not two creation sets can be consolidated, or whether this finally provides an example of the natural exclusivity which haunts the debates between competing ideological premises. The separation of the composition set from the creation set has served to explain the logical conclusions on each side of hypotheses assumed to have been competing. However there are competing hypotheses for the explanation of creation sets. It is acknowledged here that knowledge of a creation set is certainly not absolutely possible today, which in a sense makes concepts revolving around creation sets noncompetitive as they are not comparing evidence; they are comparing loosely founded speculations. Yet based on the assumed

---

<sup>9</sup> Wittgenstein, Ludwig. *Tractatus Logico-Philosophicus*. 2001. Routledge Classics. Page 76.

evidence for competing hypotheses about creation sets, an analysis can be made between any two. In order to look at the problem of competitive hypotheses, it becomes of interest to make such an analysis of hypotheses on creation sets that are thought to be competitive with one another.