

## Analytic - Synthetic Dichotomy in Kant and the Logical Positivists': A Comparative Analysis

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### Abstract

In philosophy, much consideration has been given to the distinction between the analytic and synthetic propositions. This distinction coincides with the necessary and the contingent, the a priori and a posteriori and between the certain and probable as earlier articulated by Gottfried Leibniz's 'truths of reason' and 'truths of fact'. In conformity with this divide, Immanuel Kant sets up the analytic and synthetic a priori while the Logical Positivists' paradigm includes only the analytic and synthetic. This bifurcation of nature demonstrates the differences and similarities in their respective concepts of reality. Examining the reactions of Quine to Kant and the Positivists, the work argues that one sidedness of looking at knowledge acquisition is deeply rooted in the traditional polarization of reason and experience. The author stresses systematic unity of the analytic and synthetic (the kinds proposed by Kant and Quine and embedded in African traditional worldview) as essential features of our thinking.

### Introduction

A major project for any philosophical account of human knowledge must be to understand how human beings acquire and process information about the world. It is this sort of activity that we call cognition. Two sorts of questions can be asked about the process of cognition. First are the questions how do we know? What can be known at all? Answers to these questions immediately raise a second kind of questions: where does genuine knowledge come from? Or better still by what means do we come by our knowledge of reality? The early Greek philosophers notably the Pre-Socratics believed that our knowledge of reality was possible. They sought the fundamental and alluring factors of the real world in some material, principles: water, 'the indeterminateless', 'air', 'numerical relations and 'atomic constituents' etc. Although, some of their attempts to investigate the nature of reality led to the questions of the one and many, sameness or identity, change or becoming, monism or pluralism, idealism or materialism and mind or matter.

In modern context, the nature, source and extent of human cognition as a central issue in philosophy saw the problem of knowledge appearing in many guises: "rationalism vs. empiricism, the a priori vs. the a posteriori and the analytic vs the synthetic"<sup>1</sup>. Almost all the attempts to overcome the opposition between these two concepts have ended more or less in either surrendering reason to experience or experience to reason. In this way, the sixteenth century rationalists – Descartes, Spinoza and Leibniz following the tradition of Galileo maintain that "by the strict analysis of the rational principles, we can best attain our knowledge of reality"<sup>2</sup>. These philosophers saw all knowledge coming from pure

understanding and pure reason as a priori that is as “complete, systematic... apodictic and dogmatic”<sup>3</sup>. While the seventeenth century, empiricists – Locke, Berkeley and Hume following the tradition of Bacon, on the contrary, held “perceptual experience (a posteriori principles) as the source of all our legitimate concepts and truths of the world”<sup>4</sup>. In response to Hume, Kant shows that although our knowledge cannot go beyond the limits of our experience, yet, in part it is of an a priori nature that is not derived from experience. Although, some philosophers would not wish to follow Kant in the possibility of synthetic a priori cognition and the conditions of their possibility, his emphasis on analytic and synthetic distinction as we shall see has more in common with the Logical Positivists’ - a group of revolutionary scientific thinkers such as A.J.Ayer, Rudolf Carnap, Phillip Frank. Otto Neurath, Hans Hahn, Friedrich Waismann, Herbert Freigl, Kurt Godel, Victor Kraft and Felix Kaufmann-who converged at Vienna, Austria in the 1920’s under the leadership of Moritz Schlick (a Professor of inductive sciences at the University of Vienna) to formulate a scientific criterion of knowledge based on the tenets of empiricism.

### **Background to Analyticity in Kant**

By the close of the seventeenth century, “both the rationalists and the empiricists were in fundamental agreement that there were two and only two kinds of truths (namely, a priori and a posteriori truths)”<sup>5</sup> whose history date back to medieval philosophy but had their roots in certain notions of Aristotle. By Kant’s time, the term a priori had come to mean independent of experience and a posteriori meaning derived from experience. In his massive work, the *Critique of Pure Reason* (1781), Kant tries to formulate a concept of knowledge where thought and experience are synthesized. In the opening pages of the introductory remark of the book, he says:

There can be no doubt that all knowledge begins with experience ...  
But though all our knowledge begins with experience, it does not  
follow that it all arises out of experience<sup>6</sup>.

In order to establish a general epistemological thesis, Kant as a follow up introduces a new dichotomy between the technical term the ‘analytic’ (definable in terms) and its contrast the ‘synthetic’ (confirmable in experience) as crucial philosophical constructs which form the basis of his system. Kant’s bifurcation of judgments into analytic and synthetic was merely following the tradition of the rationalists and empiricists and implicitly re-emphasizing Leibniz’s distinction between ‘truths of reason’ and ‘truths of fact’ and between Hume’s ‘relation of ideas’ and ‘matters of fact’. Tracing the background to analyticity in Kant, Willard Van Quine agrees to this fact when he says:

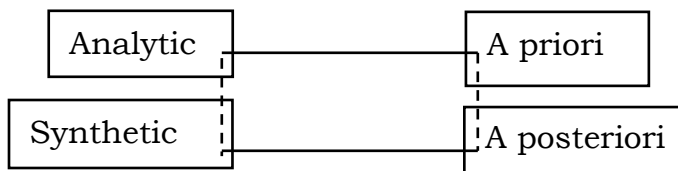
Kant’s cleavage between analytic and synthetic truths was foreshadowed in Hume’s distinction between relations of ideas and matters of fact, and in Leibniz’s distinction between truths of reason and truths of fact<sup>7</sup>.

### **Analytic and Synthetic Distinction in Kant.**

For Kant, analytic judgments are those in which the predicates are contained in the concept of the subject. Here “... the connection of the predicate with the subject is thought through identity”<sup>8</sup>. That is, the relation of a subject to the predicate is thought in such a way that the predicate B belongs to the subject A as something which is (covertly) contained in this concept A”<sup>9</sup>. They are said to be “affirmative or explicative”<sup>10</sup> judgment because they

analyze, that is bring forth elements of knowledge we already possess. The predicates do not add anything new to the concept of the subjects, “but merely breaking (them) up into those constituent concepts that have all along been thought in (them)”<sup>11</sup>. Thus, an analytic judgment depends on the relation of a subject and predicate. To deny the truth of this relation is to be involved in a logical contradiction. Kant gives the following examples (i) “All bodies are extended”, (ii) “Gold is a yellow metal”. Consider some other examples: (iii) “A is A” (iv) “All bachelors are unmarried”. No new information is provided by “All bodies are extended” or “Gold is a yellow metal” or “A is A” or “All bachelors are unmarried”. The ideas of ‘extension’ and ‘unmarriedness’, for example, are part of the definitions of ‘bodies’ and ‘bachelor’ respectively. The predicates are already contained in their subjects. We can deduce the concept of ‘extension’ just by analyzing the concept of bodies or the concept of ‘unmarriedness’ by analyzing the concept of ‘bachelor’.

Synthetic judgments on the other hand are those in which the predicates are not contained in the concept of the subjects; (‘to synthesize’ = ‘to put together’). In this kind of judgment, the connection of the predicate with the subject “is thought without identity”<sup>12</sup>. Thus, the relation of a subject to the predicate is such that “B lies outside the concept A, although it does indeed stand in connection with it”<sup>13</sup>. These judgments according to Kant are therefore called “ampliative”<sup>14</sup> because they add something new to our knowledge or to the concept of the subjects. “All bodies are heavy”<sup>15</sup> or “All palms are green” are examples of synthetic judgments. By analyzing the concept of ‘body’, we cannot deduce the concept of ‘weight’. We have to have an experience of ‘bodies’ to know they have ‘weight’. Similarly, by examining the concept of ‘palm’, we cannot deduce the concept of ‘green’. We have to see a ‘palm’ to know it is ‘green’. With these analyses, we can confidently say that a priori truths are (to use Kant’s term) analytic (analytic –a priori) and a posteriori truths are synthetic (synthetic –a posteriori).



A truth cannot be both analytic (a priori) and synthetic (a posteriori) since a priori means that which is independent of experience and of all impressions of the senses and therefore analytic and a posteriori refers to that whose truth value can be made possible only through experience (i.e. synthetic).

#### **Logical Positivists’ Agreement with Kant’s Analytic-Synthetic Distinction**

Following Kant’s bifurcation of judgments into analytic a priori (definable in terms) and synthetic a posteriori (confirmable in experience), the Logical Positivists’ also distinguished between analytic (a priori) and synthetic (a posteriori) propositions whose

meaningfulness they agreed with Kant can be asserted in a different way. In A.J. Ayer's fascinating book *Language, Truth and Logic* (1936) - a work which he later referred to as "something to popularize what may be called the classical position of the Vienna Circle"<sup>17</sup>, the Logical Positivists saw "the need to preserve the logical import of Kant's distinction between analytic and synthetic propositions"<sup>18</sup>. According to Ayer:

We say that a proposition is analytic when its validity depends solely on the definitions of the symbols it contains and synthetic when its validity is determined by the facts of experience. Thus, the proposition 'There are ants which have established a system of slavery' is a synthetic proposition. For we cannot tell whether it is true or false merely by considering the definitions of the symbols which constitute it. We have to resort to actual observation of the behavior of ants. On the other hand, the proposition 'Either some ants are parasitic or none are' is an analytic proposition. For one need not resort to observation to discover that there either are or are not ants which are parasitic. If one knows what is the function of the words 'either' 'or' and 'not', then one can see that any proposition of the form 'Either P is true or P is not true' is valid, independently of experience. Accordingly, all such propositions are analytic...<sup>19</sup>.

Rudolf Carnap also argues that meaningful propositions can be classified into two:

First there are statements which are true solely by virtue of their form (they correspond approximately to Kant's 'analytic judgments'). They say nothing about reality. The formulae of logic and mathematics are of this kind. They are not themselves factual statements but serve for the transformation of such statements. Secondly, there are the negations' of such statements. They are self-contradictory, hence false by virtue of their form. With respect to all other statements, the decision about truth or falsehood lies in the protocol sentences. They are therefore empirical statements and belong to the domain of empirical science. Any statement one desires to construct which does not fall within these categories become automatically meaningless<sup>20</sup>.

From these analyses, the Logical Positivists' (in line with Kant) were convinced that all cognitively significant propositions must be either analytic (a priori) or synthetic (a posteriori). Statements that are neither analytic nor synthetic have no meaning or significance, they are simply 'emotive'. Wolfgang Stegmüller expresses the similarity of Kant's dichotomy of judgments with that of the Logical Positivists' when he says:

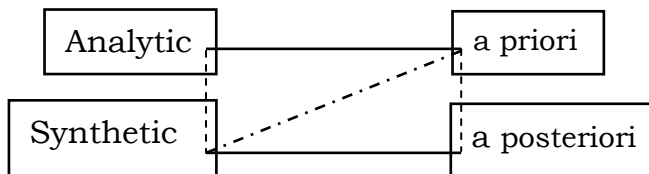
If we adopt Kant's terminology and bear in mind that he called logical truths analytic (a priori) and that observation ...and empirically testable statements... he termed synthetic a posteriori, we can then characterize the empiricist view point as follows: a statement to be scientifically acceptable must be either analytic (a

priori) or else synthetical a posteriori, that is, it must be either analytic or empirical<sup>21</sup>.

Paradoxically as it appears, it may well be argued that one of the major contributions of the Logical Positivists', however radically empiricist their intentions and criteria, is the restoration of Kant's analytic – synthetic statements to a fundamental role in the interpretation of knowledge. This distinction leaves a lasting influence on the Positivists'. In this respect, we can see that they are genuine successors of Kant having its roots in the British empirical tradition.

### **On the Possibility of Synthetic a Priori Judgment in Kant**

It is Kant's conviction that it is possible to go beyond analytic (a priori) judgment on one hand and synthetic (a posteriori) judgment on the other. He thus revises the traditional distinction between these two judgments and claims that we can have synthetic a priori judgment.



Kant argues that in mathematics, the proposition ' $7+5 = 12$ ' is a priori because it contains the marks of necessity and universality. He says;

First of all, it has to be noted that mathematical propositions strictly so called are always judgments a priori, not empirical; because they carry with them necessity which cannot be derived from experience<sup>22</sup>.

If one has seven items and he has to add five more, he does not need to count them in order to assure himself that he now has '12'. Yet, the judgment is synthetic and not analytic because the predicate '12' is not contained in the subject '7+5'. '12' cannot be derived by merely analyzing the numbers '7 and 5'. We have to appeal to the 'aid of intuition', in order to acquire a combination of the concept 7,5 and the idea of a plus. "Arithmetical propositions (according to Kant) are therefore always synthetic"<sup>23</sup>. That is to say, they are synthetic a priori. Kant also claims that geometry contains synthetic a priori propositions. For example:

That a straight line between two points is the shortest, is a synthetic proposition. For my concept of straight contains nothing of quantity, but only of quality. The concept of the shortest is wholly an addition and cannot be derived, through any process of analysis, from the concept of the straight line. Intuition, therefore, must here be called in; only by its aid is the synthesis possible<sup>24</sup>.

Besides being synthetic, the proposition according to Kant is equally necessary and therefore a priori. It would be absurd to attempt to verify it by measuring. We know that the proposition is correct independently of any possible measurement.

In natural science, we do find, according to Kant, synthetic *a priori* judgment. Kant claims that “natural science (physics) contains a priori synthetic as principles”<sup>25</sup>. One of the examples that Kant mentions is the principle of the constancy of the quantity of matter. He says: “In all changes of the material world, the quantity of matter remains unchanged”<sup>26</sup>. This proposition, according to Kant, is “not only necessary and therefore... a priori but also synthetic”<sup>27</sup>. It is *a priori* because we can make this judgment before experiencing every change and it is synthetic because in the concept of matter, (we) do not think its permanence, but only its presence in the space which it occupies”<sup>28</sup>.

In metaphysics, we assume according to Kant that we are extending or increasing our knowledge of reality. The propositions of metaphysics do not analyze our concepts of things but go beyond all experience in our judgment concerning the nature of the world, its beginning, its cause etc. Kant gives this example: “the world must have a first beginning”<sup>29</sup>. Here, the predicate adds new information to the concept of the subject and so its proposition must be synthetic. At the same time, this judgment is a priori because the predicate (a first beginning) is an idea we have of (the world) even before our experience of the world. Therefore, metaphysics, Kant observes, “consists at least in intention entirely of a priori synthetic propositions”<sup>30</sup>.

What Kant intends to show by these illustration is that it is not only in metaphysics but also in mathematics and the natural science (physics) that we make synthetic a priori judgments. The very existence of these judgments shows that reason by virtue of its own inner logic has special cognitive powers of its own which justifies the claims of metaphysicians. According to Samuel Stumpf, it was Kant’s contention that:

If these judgments (synthetic a- priori) create difficulties in metaphysics, they (should equally) create the same ones for mathematics and physics... if (they) could be explained or justified in mathematics and physics, they would ... also be justified in metaphysics<sup>31</sup>.

With this background, Kant formulates the general problems of pure reason as “How are synthetic a priori judgments possible?”<sup>32</sup>. His major task in epistemology becomes an attempt to explain how synthetic a priori judgments are possible. That is, how is it that we can know anything about reality a priori? Or better still, what are the necessary conditions of a possible or objective experience? This task leads him in the first half of the *Critique* to undertake a systematic inquiry into the a priori elements involved in sensory knowledge i.e (the ‘Transcendental Aesthetic’) and then into the corresponding elements involved in thought (the ‘Transcendental Logic’).

### **Logical Positivists’ Disagreement with Kant’s Synthetic A priori**

For the Logical Positivists’, there is no such a thing as synthetic a priori knowledge. In fact, it is the supposition of the existence of such knowledge that they, the Positivists’ deny. According to them, this kind of proposition is found neither in mathematics (Arithmetic and geometry) nor in the natural science. For the Positivists, Kant’s examples without exceptions are false. Mathematical knowledge relies on no principles other than those of formal logic. They argue that if Kant had come to a different conclusion, it was because he had on one hand underestimated the extent of logical thought and on the other

hand because Kant fell deeply into a misunderstanding of the proof procedures of mathematics. For example, the subsequent invention of the non-Euclidean geometry (as opposed to the Euclidean geometry of Kant's days which deals with physical space and its relation to objects in it) has shown that axioms of geometry are simply definitions. For the Logical Positivists';

...we can use geometry to reason about physical space. That is to say, once we have given the axioms a physical interpretation, we can proceed to apply the theorems to the objects, which satisfy the axioms. Whether geometry can be applied to the actual physical world or not is an empirical question which falls outside the scope of geometry itself... It is therefore a purely logical system and its propositions are purely analytic propositions. We conclude then that the propositions of pure geometry are analytic. And this leads us (the Positivists) to reject Kant's hypothesis that geometry deals with the form of intuition of our outer sense. For the ground of this hypothesis was that it alone explained how the propositions of geometry could be both true a priori and synthetic; and we have seen that they are not synthetic. Similarly, our view that the propositions of Arithmetic are not synthetic but analytic leads us to reject the Kantian hypothesis that Arithmetic is concerned with our pure intuition of time, the form of our inner sense. And thus, we are able to dismiss Kant's transcendental aesthetic without having to bring forward the epistemological differences which it is commonly said to involve<sup>33</sup>.

As for the empirical sciences, the Positivists argue that Kant's assumption that it rests on synthetic a priori foundation was based on error. To them, neither the elucidation of concept formation in the empirical sciences nor the problem of the testability of empirical theories can prove the synthetic a priori presuppositions assumed by Kant. Ayer argues:

...while it is true, that we have a priori knowledge of necessary propositions, it is not true, as Kant supposed, that any of these necessary propositions are synthetic. They are without exception analytic propositions or in other words tautologies<sup>34</sup>.

Thus, the Kantian attempt to save metaphysics in the narrow sense of a system of metaphysical foundations of the empirical science was totally abandoned by the Logical Positivists. It is of little wonder that Stegmuller summarizes the Logical Positivists view towards the rejection of the Kantian synthetic a priori theory when he says:

Since there are no synthetic a priori statements, the central question of the Kantian critique of reason-why such statements exists and on what their validity is based-becomes meaningless: in particular it no longer makes sense to frame a theory on the Kantian model that tries to answer the question of validity<sup>35</sup>.

### **Quine's Reactions to Kant**

Willard Van Quine, a professor of logic and linguistic philosophy at Harvard University from 1956-2000 reacted against Kant's analytic and synthetic distinction. In his



well known Article, the “Two Dogmas of Empiricism”<sup>36</sup>, he identifies two dogmas and subjects them to criticism. The first is:

A belief in the same fundamental cleavage between truths which are analytic or grounded in meaning independently of matters of fact and truths which are synthetic or grounded in fact<sup>37</sup>.

The other dogma is ‘reductionism, that is, “the belief that each meaningful statement is equivalent to some logical construct upon terms which refer to immediate experience”<sup>38</sup>. In rejecting this dogma, Quine says “it is ill founded”<sup>39</sup>. For him, the foundation of truth is a holistic system of thought which include logical principles and observational reports. Quine rejects the Kantian analytic (a priori) and synthetic (a posteriori) distinction. He proceeds to support his claim by a survey of the historical background of the distinction and criticizes Kant from four main areas: ‘synonymous point of departure’, ‘interchangeability’, ‘appeal to confused terms’ and ‘limitation of propositions’.

On the first area of disagreement with Kant, Quine decides to examine the statements which have been generally considered analytic by philosophers. These statements fall into two main classes namely; those in the first class Kant calls “logical true” statements. A logical truth, he defines, as “a statement which is true and remains true under all reinterpretation of its components other than the logical particles”<sup>40</sup>. He cites an example of such a truth as “No unmarried man is married”. The statement is analytic because the subject is synonymous with the predicate and thus logically true by definition. Its negation will lead to a contradiction.

The second class of statements generally considerable to be analytic contains any statements which “can be turned into a logical truth by putting synonyms for synonyms”<sup>41</sup>. Here, Quine examines the problems of clarifying synonymy, since the clarification of this notion is necessary before we can understand the analyticity of the second class of analytic statements. He tells us that “the major difficulty lies”<sup>42</sup> in the second class of statements, (he does not imply that there is no difficulty in understanding the analyticity of the first class). Thus, if we substitute for “bachelor” its synonym “unmarried man” in “No bachelor is married”, we get a logical truth. Because substitution of synonyms for synonyms transforms the statement into a logical truth, we call the statement analytic (though, Quine speaks of two classes of analytic statements. It is perhaps better to speak of two senses of ‘analytic’ since members of the first class are not analytic in the same sense as those in the second. At least, this would be our way of putting it).

There is one difficulty with the characterization of the second class of analytic statements; that is, that it “leans” on the notion of synonymy, which, according to Quine, “is no less in need of clarification than analytic itself”<sup>43</sup>. This remark makes one wonder just what it is that Quine is looking for? The concept of clarification, one might say, is itself in need of clarification. Is Quine looking for a criterion of analyticity and of synonymy? Or is he looking for a definition of the terms “analytic” and “synonymous”? Or is he in search for some formulation in what David Marhenke calls the “ordinary idiom”,<sup>44</sup> which expresses what the philosopher means by “analytic” and “synonymous”? The latter term, seems to be one in the ordinary idiom. But perhaps, this is not what Quine is looking for. For this term at least, Quine never tells us what would satisfy him as a clarification. At this point, the fundamental question is: how do we know that a bachelor is defined as unmarried? In other



words, how do we know that “bachelor” and “unmarried man” are synonyms? Quine points out that no matter how we look at it, the notion of synonym “has still to be clarified, presumably in terms relating to linguistic behavior”,<sup>45</sup> (i.e. in terms of how people use the two terms interchangeably in ordinary speech). This makes synonym dependent on sociological and historical facts of linguistic usage. Quine, therefore, says that since the initial aim of the dichotomists was to show that the nature of analytic proposition is different from that of the synthetic type; but, when one ends up demonstrating that analytic statements are based on experience, the distinction no longer holds.

Another point Quine raises is that of interchangeability. He examines the empiricists suggestion that interchangeability in all contexts without a loss of truth value is “the touchstone of synonymy”<sup>46</sup>. But is it true “that the synonymy of two linguistic forms consists simply in their interchangeability in all contexts without change of truth value?”<sup>47</sup>. Quine says that no two different expressions are synonymous. This is easily seen if we consider the statement ‘Bachelor’ has less than ten letters’. If we apply this criterion rigidly to “bachelor” and “unmarried man”, it turns out that they are not synonymous expressions. Substitution of “unmarried male” for “bachelor” in this true statement would result in a false statement. Thus, Quine argues that no synonymy can stand in complete identity with themselves.

The next area of Quine’s departure from Kant was his ‘appeal to confused terms’. Kant’s real intent as implicit in his usage was to understand by analytic statements “any statement which is true by virtue of meanings and independently of fact”<sup>48</sup>. From here, Quine takes up Kant on the concept of meaning. He tells us that meaning is distinct from “naming”, citing as evidence Frege’s Evening Star and Morning Star example. In this, we have two terms which name the same entity, yet do not have the same meaning. At the same time, an expression may be meaningful but may not be naming anything. He adds an example of his own “9” and the number of the planet” both “name one and the same abstract entity but presumably must be regarded as unlike in meaning...”<sup>49</sup> It is curious to find Quine speaking of “9” as a name of any entity. If names are to be construed as shorthand for definite descriptions, then in the passage cited, he seems to commit himself to the existence of the number “9”. But this is a point that needs not be pressed. No doubt, Quine is here speaking informally and would offer, if challenged, a translation of what he said, which would be acceptable to nominalism.

In either way, if one fails to keep in mind any of the above distinction, one is guilty of confusing what Quine calls “reference” with meaning. This confusion is responsible for the question “what sort of things are meanings?”<sup>50</sup> For Quine,

Once the theory of meaning is sharply separated from the theory of reference, it is a short step to recognizing as the primary business of the theory of meaning simply the synonymy of linguistic forms and the analyticity as obscure intermediary entities, may well be abandoned<sup>51</sup>.

This, in Quine’s view, may not be sufficient to get to the truth. In addition to the above criticisms, Quine rejects Kant’s limitation of propositions. He reveals that Kant’s conception of an analytic statement “as one that attributes to its subject no more than is already conceptually contained in the subject”<sup>52</sup> is questioned on the ground that Kant limited himself to the out-moded Aristotelian subject predicate logic that has been heavily criticized. Contrary to Kant, Quine claims that classification of propositions transcend subject predicate form.

### Quine's Reaction to the Logical Positivists'

Quine's attack on Kant's analytic-synthetic dichotomy clears the ground for his disagreement with the Logical Positivists. The verification principles state that a statement of fact can be proved true or false only on empirical grounds. What this implies, for Quine, "is that statements are synonymous if and only if they are alike in point of method of empirical confirmation or information"<sup>53</sup>. In this way, the Positivists accept the verifiability criterion of meaning. Quine says this approach to knowledge is a form of reductionism which is traceable to Locke and Hume. If this reductionism is accepted, Quine maintains that the vehicle of meaning would be one to one correspondence theory. Quine saw that Carnap, who was an important member of the school was not consistent with such reductionism, for he (Carnap) adopted not the sense language as a starting point for his translation; but notation of logic and a language of pure mathematics. In his *Logical Syntax of Language*, Carnap uses symbols to reduce science to terms of immediate experience. Quine shows that the Positivistic reductionism is unacceptable even in principle. He points out that Carnap uses symbols which are not translatable to sense data. Because of this difficulty, Quine says that Carnap had to alter his position about the principle of verification and its implications for scientific knowledge. The statements of reductionism, Quine argues imply "that there is a cleavage between analytic and ... synthetic"<sup>54</sup> statements. This is because if reductionism is accepted as a viable option, verification becomes the only possible method to confirm theories and evaluate truth. By so doing, our world of statements becomes limited.

Quine rejects the views of the Logical Positivists and insists that "the truth of statements does obviously depend both upon language and upon extra linguistic facts"<sup>55</sup>. The extra-linguistic facts are those which "boil down to confirmatory experience while those of the linguistic facts are about analytic statements"<sup>56</sup>. For this reason, Quine says we cannot argue independently of linguistic or factual components of truth. Science, according to him, depends on the combination of these two facts. He says:

I hope we are now impressed with how stubbornly the distinction between analytic and synthetic has resisted any straightforward drawing. I am impressed also... with how baffling the problem has always been of arriving at any explicit theory of the empirical confirmation of a synthetic statement. My present suggestion is that it is nonsense and the root of much nonsense to speak of a linguistic ... and a factual component in the truth of any individual statements. Taken collectively, science has its double dependence upon language and experience<sup>57</sup>.

On this basis, Quine concludes that the totality of human knowledge, starting from "geography and history to the profoundest laws of atomic physics or even of pure mathematics and logic, is a man-made fabric"<sup>58</sup>. Their aim is to focus on human experience. "A conflict with experience at the periphery occasions readjustment in the interior of the field"<sup>59</sup>. Accordingly, the ideas of dichotomy and verification, Quine tells us, "is an unempirical dogma of empiricists, a metaphysical article of faith"<sup>60</sup>,

### Some General Comments and Conclusion

From the foregoing, we can see that the purpose of the dichotomy between the analytic and synthetic judgments is presumably to provide us with a clarifying picture of our knowledge of reality. It is true that there are many things which we cannot say of knowledge in general but which we can confidently say separately of knowledge expressed by the

analytic and synthetic propositions. Our discussions have shown that both Kant and the Logical Positivists agreed on the dichotomy or bifurcation of judgments into analytic (a priori) and synthetic (a posteriori). These dichotomists have contended that there is a clear distinction between these two classes of judgment. Arguing from an apparent opposite direction, the Positivists disagreed with Kant's synthetic a priori judgment. Though, the dismissal of Kant's third class of judgment by the Positivists is regrettable, Quine's reaction to Kant (which prepared the grounds for his disagreement with the Positivists) did not see the need for Kant's bifurcation of judgment. That there is a difference between analytic and synthetic proposition is possible for Kant and Quine on the grounds of the complementary role of both propositions to each other. Though, Kant gave more credence to reason, knowledge for him is not an exclusive category of the analytic or synthetic but a combination of both synthetic a priori judgment. For Quine, knowledge also consists of the inseparability of the analytic and synthetic. He further argued that the reduction of analytic propositions to the synthetic-experiential type has made knowledge dependent on comprehensive information or judgment.

Furthermore, the analytic and synthetic dichotomy in Kant and the Logical Positivists is no doubt a distinction between whole and parts. No one whole makes sense without the parts and no one part can completely explain the whole. In the context of human knowledge, the parts are a priori and a posteriori, analytic and synthetic, the rational and the empirical and the whole are human knowledge which stands or falls together. Where two sources of cognition play different roles in knowledge formation, their efforts are complementary and therefore none is superior or inferior to the other as an exclusive arbiter of truth. In knowledge, we construct a whole and every part depends for its truth on its relation to the whole.

But the very critical question here is: can the attempt to resolve the analytic-synthetic dichotomy in Kant and the Logical Positivists' be solely on epistemological grounds without reference to ontology? It is not the whole, in the ontological context which has regular or constant (a priori) and irregular and changing (a posteriori) characteristics which are grasped by the human mind in the knowing process? In our African traditional life, the African embraces the rational (a priori) and empirical (a posteriori) elements in varying degrees. This means he is not a thorough going rationalist or empiricist. In many African communities, there is an inestimable reliance also on non empirical entities uncovered in myths, folktales and legends, signs (languages) and symbols (gods, goddesses, spirits, ancestors, divinities etc)<sup>61</sup> that influence human practical life and experiences.

In his work *A New Essay on African Philosophy*, Bartholomew Abanuka explains the fundamental principles of reality from the African perspective as an all-inclusive account of knowledge, human life and action<sup>62</sup>. For him, "the African experience of the universe is characterize by a unitary view (of reality as a whole)"<sup>63</sup>. Thus, when he speaks of reality as a whole or unitary, he means "all that is perceptible or conceivable on the basis of human experience of the universe"<sup>64</sup>. This includes "all the particular things which exist and the ultimate support or source of these particular things"<sup>65</sup>. In this way, whatever "the human mind can grasp in regard to reality as a whole is determined by the 'ontological principle of the real' "<sup>66</sup>. Similarly, in a more recent work *A History of African Philosophy* Abanuka argues that the concept of reality in the African perspective is "wider than what is given in physical human life and experience through perception as limited by space and time"<sup>67</sup>. He says that, reality in the African world view is understood in a general sense to include not

only material things that are perceivable but also the spiritual non material “conceptions of the Deity, the gods and goddesses or divinities and ancestors, in so far as these are formulations, which concretize or express the African beliefs about the ultimate reality and ordinary human experience of the world”<sup>68</sup>.

However, the tendency to see human knowledge as the rational or the empirical has no doubt raised very serious epistemological and procedural problems in recent philosophy. This problem which gave rise to theory or observational interpretations in the philosophy of science borders on the genesis of scientific theories and their relationship to empirical data. Are scientific theories generated from empirical instances or are they conventions derived a priori? As we have seen Kant’s insistence that knowledge is a combination of the analytic and synthetic seemed to have assigned a domineering role to theory over fact; for he maintained that the categories or conceptual schemes of mind gave order to the phenomena. In other words, they explained and determined experiential instances. However, Kant’s reference to synthetic a priori judgment as the condition for objective scientific knowledge hides the discomfort of the superiority he assigned to the rational over the empirical. The Logical Positivists’, on the other hand, who were more inclined to the British empiricists in their formulation of the verifiability principle maintained that it is the empirical data (facts) that should provide a criterion for scientific theories. This means that the Positivists’ emphasis was on the resultant reduction of scientific knowledge to empirical statements – a debate which has continued between theory and facts (practice). This became even more problematic such that any strict compliance to either divide will definitely deny scientific knowledge of any explanatory function. Thus, the Positivists contention of wanting the empirical to determine the validity of a scientific framework thereby seeking the total rejection of the non-empirical (i.e metaphysics, ethics, aesthetics and religion) is questionable.

By all indications, whatever may be the Positivists intention, it seems obvious they have not succeeded either. To suggest, therefore, as the Logical Positivists did, that a statement which is not instantly verifiable be declared meaningless or committed to the flames, is, in essence, the stagnation of science and its eventual collapse. More pertinently, however, it is to entirely misunderstand the continuous relationship between the empirical (verifiable) and the rational (unverifiable) methods of inquiry and their mutual relevance to each other. We would want to refer to the views expressed by Nathan Glick when he says:

By now, it is apparent to most philosophers (and scientists) that the standard philosophical (scientific) problems have not been dissolved ... After we have distinguished between knowledge in the sense of having experience of, and knowledge in the sense of comprehending truths, there still remains the skeptics old question; since we might always be mistaken, can we ever rightly claim to know anything?<sup>69</sup>

The above view is similar to what the Russian philosopher Jacob Bronowski said: “There is no absolute knowledge. And those who claim it, whether they are scientists or dogmatists open the door for further tragedy”<sup>70</sup>. On a final note, this paper has established that Kant’s analytic and synthetic distinction fitted well into the claims of the Logical Positivists though with disagreements with his synthetic a priori judgments and the procedural problems in the philosophy of science and epistemology. It seems clear to us and

we hope it is clear to our readers that the Logical Positivists' were Kant's successors in our contemporary efforts to understand our world and ourselves. It is undisputable that the process of knowledge acquisition is more than what the rationalists and the verificationist think. There is a danger in such a one-sided approach. To forge a more balanced intellectual scientific work and promote genuine search for a universally valid criterion of knowledge, we must appreciate the combinatory role of reason, sense-experience, analytic-synthetic distinction, the trivial analysis of language and the realms of the non-empirical for more profound knowledge about the world and human life. Here, Kant, Quine and the African traditional worldview in contrast to the Logical Positivists' have given us a helping format. They have from different persuasions insisted on the paradigm of an epistemological theory designed to understand the interplay or combination of several factors in knowledge formation. The result of their interplay, they argued, should be the constitution of the object of knowledge.

### Endnotes

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