The analytic and the synthetic

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Abstract

Philosophers like Kant and Frege simply associate analytical truths with obvious definition, meaning and synonymy yet without clarification. Quine raises serious questions about these 'truths'. He argues that there is no clear boundary between analytic and synthetic statements. Because Quine regards the distinction between analytic and synthetic statements to be an 'unempirical dogma', he has chosen to replace this with his 'doctrine of epistemological holism', one that has contributed to the idea that a sufficient theory of the senses of sentences needs to take account of the relations of a sentence to other sentences. However, not all philosophers agree with Quine's ideas, examples being Kripke and Putnam, who believe that a selected class of analytic statements adheres to certain criteria.

In Christian philosophy, Dooyeweerd has contested the heritage of the Kantian analytic and synthetic distinction, mainly because of a lack of insight into both the coherence of the modal aspects of reality and the modal, logical subject-object relation. The problem with this Kantian distinction is that it reduces the lingual aspect to the analytical aspect of reality, which results in a circularity – as Quine has indicated.

A new approach is required to clear up this circularity and, in this paper, I explore possible approaches.

To this end, I shall trace the ideas of Kant, Bolzano and Frege with regard to the distinction between the analytic and the synthetic. Both Quine's (important) critique of this distinction and Putnam's ideas are to be explored in detail. However, to understand this problem, Dooyeweerd and Strauss's unique contribution within the Christian philosophical paradigm also needs to be explored.

1. Introduction

Even though the conceptualisation of the analytic and the synthetic is mainly rooted in Kant's work, his work was predated by that of thinkers such as Leibniz (specifically with regard to the analytic), and Locke and Hume with their thoughts on 'relations of ideas'. With the exception of geometry, Kant did not focus much on mathematics. However, when mathematics started gaining greater importance in the 19th century, this encouraged mathematicians to grapple with its foundations, which, in its turn, led to an attempt to improve upon Kant's formulation of the analytic. Gottlob Frege played an important role in this regard by taking the analytic to a next level of significant discussion (Kneale & Kneale, 1962:445; *Stanford Encyclopedia of Philosophy*, 2017:3).

From then onwards, many philosophers (beginning with Frege) attempted to indicate that the truth of logic and mathematics and other *a priori* domains (such as philosophy and the foundations of science) are (at least epistemically) analytic in terms of rigid 'conceptual analysis'. These attempts, however, ran into difficulties so that philosophers like Quine rejected the existence of the distinction. Not all philosophers agreed with Quine. Putnam, for instance, indicated that although the existence of the analytic-synthetic distinction cannot be denied, there nevertheless is the danger that it may be overworked.

Firstly, in this paper I consider how philosophers respond to Kant's analytic-synthetic distinction. I then explore why a Christian philosophy cannot uphold this distinction and conclude that the Kantian distinction between the analytic and synthetic finally results in circularity because it reduces the lingual aspect of reality to the logical aspect. The philosophers who have grappled with this problem did not realise this because they had no insight into the modal aspects of reality.

2. The analytic and the synthetic in Kant's thinking

In order to understand the problem of the distinction between the analytic and the synthetic, it is important to examine this distinction in Kant's system. As a point of departure, one should consider Hume's understanding of the concept of 'cause'. The issue in this regard is not whether the concept of cause is correct, useful and – in respect of all cognition of nature – indispensable, but rather whether cause is a carefully thought-through reason *a priori*, which thus has an inner truth independent of all experience and consequently has a far wider use, one that is not only limited to the objects of experience. The discussion therefore involves the origin of this concept (cause) and not its necessity. If the origin has been determined, the conditions of its use and the sphere in which it may be valid will already have been identified (Hatfield, 2012:9).

According to Kant (Hatfield, 2012:10), the concept of the connection between cause and effect is not the only concept by means of which the connections between things *a priori* are to be understood. Metaphysics consists of such concepts. It therefore arises from pure understanding and is deducible from a single principle. A metaphysics of this nature can be explained by employing the analytic method. Kant, however, maintains that the work itself has to be composed according to the synthetic method, "… so that the science might present all of its articulations, as a structural organisation of a quite peculiar faculty of cognition, in their natural connection" (Hatfield, 2012:13).

When considering the sources of metaphysical cognition, it is important, according to Kant, to realise that these are already present in the concept of metaphysics itself and can therefore not be empirically investigated:

> The principles of such cognition (which include not only its fundamental propositions or basic principles, but also its fundamental concepts) can therefore never be taken from experience; for the cognition is supposed to be not physical but metaphysical, i.e., lying beyond experience (Hatfield, 2012:15).

Metaphysics will therefore neither be based on external experience (which, according to Kant, constitutes the source of physics proper), nor on inner experience, which provides the foundation of empirical psychology. Metaphysics is therefore cognition *a priori* or from pure understanding and pure reason.

The question therefore arises as to how to draw a general distinction between synthetic and analytic judgments. Kant is of the opinion that metaphysical cognition only contains *a priori* judgements. Judgements may have any origin whatsoever or they can be constituted in any manner according to their

logical form. There is nonetheless a distinction between these judgements according to their content by virtue of which they are either explicative – and add nothing to the content of the cognition – or ampliative (implicative) and thus increase the given cognition. According to Kant, the first judgement is analytic and the second synthetic (Hatfield, 2012:16). He explains this analytic-synthetic distinction in his *Critique of Pure Reason* (*CPR*):

> In all judgements in which the relation of a subject to the predicate is thought (I take into consideration affirmative judgements only, the subsequent application to negative judgments being easily made), this relation is possible in two different ways. Either the predicate B belongs to the subject A, as something which is (covertly) contained in this concept A; or B lies outside the concept A, although it does indeed stand in connection with it. In the one case I entitle the judgment analytic, in the other synthetic (A6-7) (Kant, 1929:48).

All analytic judgements rest entirely on the principle of contradiction. Analytic judgements are by their very nature *a priori* cognitions, whether the actual concepts that serve for their material be empirical or not. Since the predicate of an affirmative analytical judgement is already thought of beforehand in the concept of the subject, it cannot be in disagreement with that subject without contradiction. The obverse is also necessarily denied of the subject in an analytical, though negative judgement and indeed also according to the principle of contradiction. For example: Everybody is extended, and: Nobody is unextended (Hatfield, 2012:17).

Kant thus believes that when considering the above judgement, namely that 'All bodies are extended', something extended in space seems to be just part (contained) of what is meant by body. In contrast to 'All bodies are extended', in the judgment, 'All bodies are heavy', the predicate ('is heavy') is added (synthesised) to the concept 'bodies'.

This 'containment' metaphor (Kant's official characterisation of analyticity) for the analytic can be explained in two ways. As mentioned above, the one way (following a suggestion tendered by Leibniz) is that the predicate must be drawn out in accordance with the principle of contradiction. Another way is to analyse the concept, i.e., as Kant puts it, to become aware of the manifold that one always 'thinks' (Burge, 2003:200; *Stanford Encyclopedia of Philosophy*, 2017:2).

Kant was unaware of the abovementioned, different characterisations of the analytic because his conception of logic was restricted to the Aristotelian syllogistic, which excluded modern logic, in which the differences between the two characterisations becomes more manifest. The category of the analytic is demarcated in order to contrast it with the 'synthetic', which is

not merely confined to the empirical. Kant distinguishes between *a priori* and analytical (Kripke, 1980:34), his focus being rather on the synthetic than on the analytic. Kant even believes an elementary example in arithmetic (7+5=12) to be synthetic because the concept '2' is not contained in the concepts of '7', '5' or '+':

> [A]ppreciating the truth of the proposition would seem to require some kind of active synthesis of the mind uniting the different constituent thoughts. And so we arrive at the category of the 'synthetic *a priori*', whose very possibility became a major concern of his work (*Stanford Encyclopedia of Philosophy*, 2017:3).

Kant attempts to indicate that the activity of synthesis is the source of the important cases of *a priori* knowledge. In Kant's defence of the synthetic *a priori*, the notions of the analytic and the *a priori* come apart (Restall, s.a.:4). Not only does Kant grapple with this in arithmetic, but also in geometry, in the foundations of physics, in ethics and generally in philosophy.

The purpose of Kant's *Critique of Pure Reason* was to put an end to metaphysical philosophy as it had been conceptualised before his time. Kant did not succeed and Bolzano was one philosopher who rejected Kant's work and continued to philosophise in a pre-critical way. Although Bozano's account of the distinction between analytic and synthetic was interesting, it was not very influential. Analytic propositions is a class of such of which may be obtained from some given proposition by substitution for one or more constituents of that proposition. Bolzano explains his definition of analytic propositions by using the following example: Given the proposition expressed by "The man Caius is mortal" and, considering its constituent Caius as replaceable, there exists a class whose other members are propositions like those expressed by "The man Sempronius is mortal" and "The man Titus is mortal". All the members of this class are true and may be called "gegenständlich" (representational) as they deal with real objects. The original proposition is universally valid in respect of that constituent or those constituents for which substitution has been considered (De Jong, 2010:251). If all the members of the class are false, then the original proposition is universally invalid. If some of the class are true and others are false, then the proposition has an intermediate degree of validity equal to the proportion of true propositions in the class, thus a degree of validity. The distinction between analytic and synthetic can be explained as follows. The proposition expressed by "A morally bad man deserves no honour" is analytic in respect of the constituent signified by 'man', because substitution for that constituent yields only true propositions. The proposition expressed by "A triangle contains two rights angles" is synthetic because it has no constituent

for which substitution yields only true propositions or only false propositions. Bolzano's notion of an analytic proposition is much wider than that of Kant and, contrary to Kant's usage, Bolzano has defined the word 'analytic' in such a way that it can be applied to false propositions, the reason being that he believes that the two words 'analytic' and 'synthetic' are exhaustive of the realm of propositions. According to Kant, the usage of self-contradictory propositions would be neither analytic nor synthetic.

It is furthermore interesting that Bolzano cautions against classifying propositions by their linguistic expressions and in one place, points out that sentences like "War is war" may be used to express synthetic propositions (Kneale & Kneale, 1962:367).

Dummett (1991:30) states that although the exact meaning of Aquinas's distinction between "per se nota" ("knowledge in itself") and "nota quoad nos" ("knowable *a priori*"), is not easy to understand, Aquinas does deserve credit for drawing a distinction of a kind not made before Bolzano.

To return to mathematics: Frege does not consider the Kantian theory of mathematics – that all mathematical truth is synthetic *a priori* – to be true. Frege deems the Kantian theory of mathematics to have been problematic because Kant was 'mesmerised' by Aristotelian logic. According to Scruton (2002:250), "Frege offered to demonstrate that arithmetical truth is not synthetic but analytic, in the sense of following from laws of logic so basic that they cannot be denied without self-contradiction". So, how does Frege understand the analytic and the synthetic? In the following section of the paper, the focus will fall on Frege's ideas in this regard.

3. Frege rejects Kant's way of distinguishing between analytic and synthetic truths

Frege rejected the empirical theory that arithmetic rests on inductions from facts about groups of things. He rather considers whether the laws of arithmetic are synthetic or analytic. Although Frege regards Kant to be the chief exponent of the view that mathematical propositions are synthetic, he does not accept Kant's account of the distinction between the two kinds of judgment. According to Frege's account, a truth is analytic if, to prove it, we need to refer back only to general logical laws and to definitions. It is synthetic if, to prove it, we use premises that are not of a general, logical nature (De Jong, 2010:258). Kant came near to this when he connected the truth of analytic judgments with the principle of non-contradiction. The problem was

that Kant worked with too narrow a conception of logic, moreover using a criterion applicable only to universal, affirmative judgments of the Aristotelian scheme when confronted with the question as to whether the predicate concept was or was not contained in the subject concept of a judgment. In singular and in existential judgments there is no subject concept and the definition of a complex concept is nothing more than a list of characters. However, the important definitions of mathematics (e.g. that of the continuity of a function) are not of this kind. Frege was the first to identify this defect of traditional logic. Neither Leibniz nor Boole realised this and, according to Kneale and Kneale (1962:445), "Frege could more plausibly make large claims for logic precisely because he allowed for much greater complexity of logical form than any of his predecessors had been able to conceive. In his work 'analytic' is to be understood by reference to his own logic and it is by no means a synonym for Locke's 'trifling'".

Kant was, according to Frege, wrong in the case of arithmetic, but he (like Kant) believed the truths of geometry to be both synthetic and *a priori*. For Frege, the value of Kant's work is that there are synthetic judgments a priori. Geometry is indeed founded on intuition, as Kant said, and its axioms govern everything that is spatially intuitive.

Another important topic of interest is that some statements have to be known *a priori* in order for them to be true, for example, number-theoretical statements. True number-theoretical statements are at least ontologically necessary and if a person comes to know them, they are epistemically necessary. However, there are also statements that can be characterised as being known to be true by a person without that person knowing whether these sentences are either epistemically necessary or contingent. This means that a person should know the statement to be true, yet not know it to be epistemically necessary, even if, in fact, it is so. This is where Frege's version of analytic sentences seems to offer an alternative with regard to the idea of 'rational intuition' of the 'rationalist philosophers' (such as Descartes, Leibniz and others). Frege was the first person to attempt formalising arithmetic by considering the logical forms of a relative minority of natural language sentences in a deliberately spare formalism. Subsequent work on the logical (or syntactical) structure of the full range of sentences of natural language started flourishing (*Stanford Encyclopedia of Philosophy*, 2017:5). The analytic therefore seems to offer a better alternative than does the rationalist option: "Perhaps all the truths of arithmetic could be shown to be analytic by Frege's criterion, i.e. by showing that they could all be converted into logical truths by substitution of synonyms for synonyms" (*Stanford Encyclopedia of Philosophy*, 2017:6).

Burge (2003:200) indicates that Frege frees the above 'logic-with-definitions concept' from the assumption that the business of logic is to analyse concepts. Frege draws a distinction between non-logical referential expressions and logical constants. Some sentences are patent logical truths in the sense that their truth depends only on the semantic values of their logical particles. Conversely, there are truths that depend on the analyticities of the further non-logical terms. To capture the latter, Frege employs the notion of 'definition' or conjectures that definitions preserve meaning.

Other important notions related to Frege are those of 'proof' and 'justification'. According to Bar-Elli (2010:171), it is important to realise that the notion of justification is more wide-ranging than the notion of proof. This could facilitate understanding of Frege's view that the axioms of logic and of geometry are unprovable and yet happen to be both analytic and *a priori*. Justification contains proof, but the basic truths have no justification. Frege does not consider being self-evident to be proof of a truth, but merely a reason for not needing proof. If being self-evident is a form of justification, then justification is a more comprehensive notion than proof. Frege thus acknowledges a wider notion of justification (even in logic and mathematics) than proof. Proof and deductive inference are a basic form of justification. The problem of the justifiability of basic truths is central both to Frege's position and to the rationale of his logical programme in general: "Realizing a notion of justification wider than proof would enable us to understand how Frege could have held that axioms of logic and of geometry are unprovable, and yet analytic and *a priori* respectively" (Bar-Elli, 2010:171).

What is furthermore important is that the notion of sense, as Frege understood it, relates to the person's recognition of reference, in particular the sense of a sentence to the person's capacity to recognise that sentence as true or as false. The realistic part of Frege's theory is concerned with the doctrine of reference. Meaning is not divorced from knowledge and, for Frege, a person is capable of granting some of his/her expressions a sense that relates to a means of recognition that a person is not capable of carrying out. An example of such an interpretation is the quantification over infinite domains (Dummett, 1981:589).

At this stage, it can be said that there is an inconsistency between sense-datum language, and the language of material objects and physical properties. As an alternative, a sense of empirical statements can be established not merely by observation but via the mediation of other statements connected with them through deductive or inductive inference. The sense of statements,

in this regard, is such that it cannot be founded on direct observation but only on the justification of an entire theory or rather on a 'modest' sense of theory, which, according to Dummett (1981:591), is a result of an inferential process.

Frege therefore regards the truth of, for instance, self-evident axioms to be rooted in the senses (*Sinne*) of their components, that is, "… in the ways their references, the things the axioms are about, are given to us" (Bar-Elli, 2010:179). Fregean senses consist of the cognitive relations to things in the world. These relations are the ways in which things in the world are conceived. 'Language' and 'world' are, in the Fregean sense, modes in which things in the one are conceived and expressed in the other. This is the underlying reason why Frege considered it so important to emphasise that his notion of the analytic is concerned with epistemic justification – the ultimate grounds of truths and of justifying claims to knowing them (Bar-Elli, 2010:179). Frege's notion of analyticity is thus based on justification.

Frege maintains that the same notion of sense applies to both analytic and synthetic statements. A person may know the sense of a sentence without knowing whether it is analytic or synthetic (Dummett, 1981:588).

The notions of, for example, 'definition', 'meaning' and 'synonymy' seemed to be sufficiently obvious and did not need clarification until, that is, Quine raised serious questions regarding them (*Stanford Encyclopedia of Philosophy*, 2017:11). According to Burge (2003:200), three concepts of analyticity were in place before Quine initiated his critique. Two concepts have already been mentioned, namely 'containment' and the 'logic-with-definitions'. The third concept is that of 'vacuousness'. Quine has rejected the use of all of these concepts. What interests Burge the most, though, is what he regards as Quine's success in attacking the concept 'vacuousness' (Burge, 2003:202; 205).

4. Quine's scepticism: the two dogmas

Quine launches a general attack on the idea of analytical truth. Quine's argument is built on the idea that there is no firm boundary between analytic and synthetic statements. His argument resembles arguments more often encountered in physical science whereby, for example, "the existence of a certain force is disputed on the grounds that it cannot be explained in terms that do not simply presuppose its existence, and that the phenomena which it was invoked to explain can be explained without it" (Kemp, 2006:20). Quine attempted several ways of explaining the concept of analyticity. These failed

and he therefore abandoned the distinction as "an unempirical dogma of empiricists, a metaphysical article of faith" (Kemp, 2006:20; Quine, 1953:37). He replaced this 'unempirical dogma' with his 'doctrine of epistemological holism'. Thus, what argument does Quine have in place? The first concerns meanings. What are meanings? Meaning and reference are distinct, but meaning is more fine-grained than is reference. For example, as Frege points out, although the singular terms 'the Morning star' and 'the Evening star' *refer* to the same object (the planet Venus), these singular terms differ in *meaning*. The primary business of the theory of meaning is simply the *synonymy* (x and y are alike in meaning) of linguistic forms and the analyticity of statements; meanings themselves, as obscure intermediary entities, may well be abandoned (Kemp, 2006:20; Quine, 1953:22).

There are two classes of analytic statements, the first comprising statements that are logically true, namely statements that are true and remain true under all reinterpretations of its components other than the logical particles such as, for instance, 'no', 'un-', 'not', 'if', 'then', 'and', etc. The second class of analytic statements is characterised by being able to replace synonyms with synonyms. So, for instance, the sentence, 'No bachelor is married' can be changed into the sentence, 'No unmarried man is married' by replacing 'unmarried man' with its synonym 'bachelor'. Quine however cautions:

> We still lack a proper characterization of this second class of analytic statements, and thus of analyticity generally, inasmuch as we have had in the above description to lean on a notion of synonymy, which is no less in need of clarification than analyticity itself (Quine, 1953:23).

Quine (1953:24) further states that the difficulty of analyticity "lies not in the first class of analytic statement, the logical truths, but rather in the second class, which depends on the notion of synonymy".

As regards the problem of synonymy, Quine observes:

> In formal and informal work alike, thus we find that definition – except in the extreme case of the explicitly conventional introduction of the new notations – hinges on prior relations of synonymy. Recognising then that the notion of definition does not hold the key to synonymy and analyticity (Quine, 1953:27).

A suggestion can be that the synonymy of two linguistic forms "consists simply in their interchangeability in all contexts without change of truth value – interchangeability, in Leibniz's phrase, salva veritate" (Quine, 1953:27). However, there are counter instances, but the question remains whether interchangeability or *salva veritate* (apart from occurrences within words), on the one hand, is a strong enough condition for synonymy or, on the other, whether some heteronymous expressions might thus be interchangeable.

The synonymy concerned here is cognitive synonymy and not synonymy in the sense of complete identity in psychological associations or poetic quality in which sense no two expressions are indeed synonymous.

The question, however, arises (in order to resume the thread, that is, to explain analyticity with the help of cognitive synonymy) whether such interchangeability is a sufficient condition for cognitive synonymy. Though, according to Quine, this is indeed the case, there is nevertheless a problem because the condition of interchangeability (*salva veritate*) varies in its force with variations in the richness of the language that contains the adverb 'necessarily' (for example: "'Necessarily, all and only bachelors are unmarried men'"), "… this adverb being so construed as to yield truth when and only when applied to an analytic statement". Quine then poses the following questions: "But can we condone a language which contains such an adverb? Does the adverb really make sense?" He then states: "To suppose that it does is to suppose that we have already made satisfactory sense of 'analytic'" (Quine, 1953:30).

Therefore, in an extensional language, interchangeability *salva veritate* is no assurance of cognitive synonymy of the desired type. 'Bachelor' and 'unmarried man' are interchangeable *salva veritate* in an extensional language, but it assures no more than that 'All and only bachelors are unmarried men' is true. That the extensional agreement of 'bachelors' and 'unmarried men' rests on meaning rather than accidental matters of fact cannot be assured. The same holds for the extensional agreement of 'creature with a heart' and 'creature with kidneys' (Quine, 1953:31; Stegmüller, 1977:231).

Extensional agreement is the nearest approximation to synonymy, but extensional agreement cannot account for cognitive synonymy of the sort required for explaining analyticity in terms of synonymy (with both synonymy and analyticity being in need of clarification).

Quine notes that to explain cognitive synonymy first in order to derive analyticity from it afterwards might be the wrong approach. Analyticity can be explained without appealing to cognitive synonymy, but cognitive synonymy can be derived from analyticity. There is, however, still a problem. Quine explains:

> Analyticity at first seemed most naturally definable by appeal to a realm of meanings. On refinement, the appeal to meanings gave way to an appeal to synonymy of definition. But definition turned out to be a will-o'-the-wisp, and synonymy turned out to be best understood only by dint of a prior appeal to analyticity itself. So we are back at the problem of analyticity (Quine, 1953:32).

Stegmüller offers the following explanation of the problem in question:

> In evaluating this equation of 'synonymous' with 'exchangeable *salva veritate*' a distinction has to be drawn. The contexts by reference to which this equation is postulated may be extensional. … For in such contexts one substitutes any two co-extensional expressions without changing their truth-value and in so doing one also includes expressions which cannot be accepted as synonymous … The required narrowing of the concept of synonymy could only be reached by making substitutivity *salva analyticitate* the criterion of synonymy instead of substitutivity *salva veritate*: but then the whole procedure would represent a *circulus vitiosus* (Stegmüller, 1977:231).

The difficulty of separating analytic statements from synthetic ones seems to be related to the vagueness of ordinary language. The distinction will be more obvious with a precise artificial language with explicit 'semantic rules', which indicate that such and such statements, and only those, are the analytic statements of this artificial language. If, like Stegmüller, one asks, "'What is an analytic statement?', then the object of one's investigation should be a precise linguistic system. Such systems are constructed within semantics, which has been developed especially by Rudolf Carnap" (Stegmüller, 1977:228). A specific language, L (comprising a table of the signs, formation rules, designation rules, valuation rules and truth-value rules), will enable somebody to state under what condition a sentence of that language is true and these truth conditions may be identified with the meanings of the sentences of language L. The semantic rules of L provide a knowledge of the meaning of its sentences. Analyticity is therefore possible because the truth-value can be determined on the basis of meaning-analysis and therefore, according to Carnap, the definition of 'analytic' can be described in terms of the following semantic system: "Analytic for L = true by virtue of the semantic rule of L alone" (Stegmüller, 1977:228). The problem is that the rules contain the word 'analytic', which is not understood. Quine states:

> We understand what expressions the rules attribute analyticity to, but we do not understand what the rules attribute to those expressions. In short, before we can understand a rule which begins 'A statement S is analytic for language L_0 if and only if …' we must understand 'S is analytic for L' where 'S' and 'L' are variables (Quine, 1953:33).

But what if the rule is viewed as a conventional definition of a new symbol 'analytic-for-L_0? This rule might be written as 'K'. This seems not to clarify the word 'analytic'. If a number of classes of statements of L_0 are taken into account, one could ask what it means to say that, for instance, the class K, as against classes M, N, etc., is the class of the 'analytic' statements of L_0. Quine explains:

> By saying what statements are analytic for L_0 we explain 'analytic-for-L_0' but not 'analytic', not 'analytic for'. We do not begin to explain the idiom 'S is analytic for L' with variable 'S' and 'L', even if we are content to limit the range of 'L' to the realm of artificial languages (Quine, 1953:33, 34).

Quine identifies a semantical rule of a second type, a rule of truth that is not supposed to specify all the truths of the language. This rule stipulates a certain multitude of statements, which, along with others unspecified, are to count as true. Such a rule may be clear and analyticity can be demarcated: "[A]a statement is analytic if it is (not merely true but) true according to the semantical rule" (Quine, 1953:34).

Quine, however, still does not detect any progress: "Instead of appealing to an unexplained word 'analytic', we are now appealing to an unexplained phrase 'semantical rule'" (Quine, 1953:34; Stegmüller, 1977:228).

In considering the above discussion, it seems that there is no proper clarification of the 'analytic-synthetic' antithesis. According to Stegmüller (1977:235), should this be the case, ontology is favoured to the detriment of analyticity. With regard to these issues, much more is involved than a purely logical problem. It is about two basic scientific ideas that are in conflict. On the one hand, it is the idea that there is a clear boundary line between analytic and synthetic statements, which means that logical issues can be separated from factual ones and in every single sentence, the linguistic components can be separated from factual ones. On the other hand, Quine questions this presupposition because he considers the starting point to be the observation "that the truth of statements depends on linguistic as well as extra-linguistic factors" (Stegmüller, 1977:235).

There are, however, philosophers who believe in analytic statements, one of these being Kripke (1980) when he relates the notion of a possible world to 'analytic'.

5. Kripke on epistemology and ontology

For Kripke, there are two basic kinds of truths. The first is the distinction between contingent and necessary truths. The second is the distinction between *a posteriori* and *a priori* truths. The first distinction refers to statements that, though true, might not have been, and those that could not but have been true. This, according to Kripke, is a metaphysical (ontological) distinction. The second distinction refers to those statements that can only be known by observation and experience, and those that can be known

without observation and experience. This is an epistemic distinction – one concerned with knowledge rather than with the state of things.

These two distinctions coincide, which means that all *a priori* truths are thought to be necessary and vice versa and that all *a posteriori* truths are thought to be contingent and vice versa. However, Kripke cautions that, since the distinctions are made in quite different ways, it should not be obvious that they coincide (Morris, 2007:80). If something therefore belongs to the realm of *a priori* knowledge, it can also be known on the basis of experience: "So 'can be known *a priori*' doesn't mean 'must be known *a priori*'" (Kripke, 1980:35).

Proper names and definite descriptions are designators of a different kind. To explain this difference, the validity of arguments involving possibility and necessity needs to be explained by introducing the notion of a 'possible world'. This notion of a possible world is (roughly speaking) a way the world might have been. If something could have happened, there is thus a possible world in which it does happen. When considering the distinction between necessary truth and contingent truth, the first is true in all possible worlds. This means that something is necessarily true if there is no possible world in which it is not true. The second (contingent) truth is true in the actual world, but not in all possible worlds (Morris, 2007:82). When this notion of a possible world is applied to the 'analytic', Kripke stipulates that an analytic statement is "… true by virtue of its meaning and true in all possible worlds by virtue of its meaning. Then something which is analytically true will be both necessary and *a priori*" (Kripke, 1980:39, 56).'

Frege's notion of ontological necessity – involving second-order quantification as indispensable for the definitions of 'natural number' and of 'cardinal equivalence', and even for those of 'class membership' – must not be confused with Kripke's notion of metaphysical necessity, which relates to the behaviour of sentences when governed by modal operators interpreted non-epistemically (Dummett, 1991:30).

What is further important is Putnam's distinction between a mere change of meaning and a substantive change of meaning (Dummett, 1981:603). Putnam disagrees with Quine's rejection of the analytic-synthetic distinction. In order to explain why this distinction is important, Putnam holds that a person should be able to indicate both the nature of and the rationale for the analytic-synthetic distinction. A person should explain what the point is of having a separate class of analytic statements (Putnam, 1975:35).

6. Putnam's distinction between one-criterion terms and general terms

According to Putnam (1975:33), there is the danger of overworking the analytic-synthetic distinction and, conversely, also a tendency to deny its existence. More significant, however, is that the features of the analytic-synthetic distinction relate to problems connected with physical science, particularly the definition of 'kinetic energy' and the conceptual problems connected with geometry.

Putnam's point of departure has its origins in the philosophy of science. He is interested in general terms. Kripke's thinking, on the other hand, emanates from the field of modal logic, which attempts to extend the account of singular terms and identity statements to the theoretical identity statements of science (Wikforss, 2013:243). In the spirit of Quine, Putnam argues against the positivist account of the relationship of meaning and evidence. He defends an alternative picture of the semantics of general terms, a picture that ensures better coherence with the workings of science (Wikforss, 2013:243).

Putnam believes that to clarify the analytic-synthetic distinction, the paradigm case of analyticity – 'All bachelors are unmarried' – must be contrasted with an example that perfunctorily resembles it: the statement that kinetic energy is equal to one half the product of mass and velocity squared, 'e = ½ mv^2'. How do these two statements differ?

For Putnam, 'All bachelors are unmarried' is a paradigm for an analytic sentence and 'e = ½ mv^2' is true by stipulation. When considering an example in the Euclidean principles of geometry, the statement (principle) that light travels in straight lines is as close as non-analytic statements ever get to analytic statements because the status of Euclidean geometry is such that no experiment can disprove it on its own. However, a rival conceptual system (e.g. non-Euclidean geometry) and a reason for accepting it might end up by abandoning the former theory (Putnam, 1975:48).

It would therefore seem that before Einstein, geometrical principles (mistakenly) had the same status as analytical principles. According to Putnam, after Einstein, "… Hume (and Euclid) had certain beliefs about straight lines … which were, in fact, unknown to them, false". However, in saying all of this, it can also be said "… that the principles of geometry had, at the time Hume was writing, the same status as the laws of mathematics" – and were therefore analytic (Putnam, 1975:50).

But what about statements containing a proper name as subject term? According to Leibniz, all of these statements must be analytic, thereby indicating that they must all follow from the nature of what is being discussed. A question that arises in this regard is whether any statement containing the subject, for instance, 'man', really is analytic. Suppose a list of attributes is selected to make up a normal man. If some of these attributions are removed, will the word 'man' still have a meaning? In order to address this question, philosophers have introduced the idea of the cluster concept: "That is, we say that the meaning in such a case is given by a cluster of properties" (Putnam, 1975:52).

Another notion introduced by Putnam, one that is analogous with a cluster concept, is the notion of a law-cluster. Law-cluster concepts constitute a cluster of laws that determine the identity of the concept. An example in this regard is the concept 'energy' because it enters into various laws.

Are law-cluster concepts analytic? How do they compare with (analytic) statements such as 'All bachelors are unmarried'? Putnam argues that it is important to realise that principles, for instance, '$e = ½ mv^2$', do not have precisely the same nature as 'All bachelors are unmarried'. The reason for this is that 'All bachelors are unmarried' cannot be rejected unless the extension of the term 'bachelor' is (radically) changed. Putnam emphasises that the meanings of the terms 'energy' and 'kinetic energy' have not changed sufficiently to affect what is talked about but it cannot be the same as the (superficial) principle, 'All bachelors are unmarried'. What makes the resemblance superficial? When asked about the meaning of the term 'bachelor', it can only be said that 'bachelor' means 'unmarried man'". When considering the meaning of the term 'energy', much more can be done than simply providing a definition: "We can in fact show the way in which the use of the term 'energy' facilitates an enormous number of scientific explanations, and how it enters into an enormous bundle of laws" (Putnam, 1975:53).

The statement in physical theory – '$e = ½ mv^2$' – is regarded as a definition and analyticity is often defined as 'truth by definition'. It has, however, been indicated that '$e = ½ mv^2$' is not and was not analytic, if an analytic statement is conceived of as a statement that no one can reject without forfeiting the claim to reasonableness. However, are there then statements that are immune to revision? For Putnam, the answer is yes and although he agrees with Quine on pervasive epistemological issues (for example, the contexts in which the argument is defined by questions of necessity, of factuality and of linguistic or non-linguistic character), there is no significant distinction to be drawn between, for instance, the principle of the excluded middle and the principle that f = ma). He therefore states that "… still there are truths that it

could never be rational to give up, and 'All bachelors are unmarried' is one of them" (Putnam, 1975:54).

Though Quine does not deny that some statements are immune from revision, he denies that science does this. If science is characterised by the interdependence of its principles and by the fact that its principles can be revised, why then should any principles be held immune from revision? Why should there be an analytic-synthetic distinction (in science)?

According to Putnam, while 'All bachelors are unmarried' can be held to be immune from revision, this does not seem to be the case for 'kinetic energy = ½ mv^2'. This is so because 'energy' is a law-cluster term and 'bachelor' is not, the reason being that there are no exceptionless laws containing the term 'bachelors' that form part of a set of ordinary language terms, which have a minimum of systematic input, "… and are such that they typically only have one criterion for their application …" (Wikforss, 2013:244). The latter statement is empirical because not only is it a fact about the world, it is also non-empirical in the sense of being subject to confrontation with isolated experiments. To be more precise:

> … it occupies the anomalous position of being falsifiable by isolated experiments (since isolated experiments could verify an empirical generalization which *would* constitute a 'law about all bachelors'); but it could not be verified by isolated experiments (Putnam, 1975:59).

Putnam therefore takes the following stand:

> [A] 'synthetic' statement, a statement which could be revised in principle, may serve as a warrant for the decision that another statement should not be revised, no matter what. One may safely hold certain statements immune from revision; but *this* statement is itself subject to certain risks (Putnam, 1975:59).

Is the above quotation not a paradox? According to Putnam, it is not. An intention to do something permanently is not the same as saying that the intension is permanent. It is thus rational to make stipulations to the effect that certain statements are eternal revisable. Such stipulations remain stipulations to that effect, notwithstanding the fact that under certain circumstances the stipulations themselves might be abandoned. Putnam (1975:60) does, however, caution that the abovementioned argument applies in the context of formalised languages. He draws a (radical) distinction between, on the one hand, a formal language that can be described as having rules to the effect that every statement may be revised (for instance, the holistic system that Quine envisaged), and, on the other, a formal language having rules to the effect that certain statements are never to be revised – although it is possible to revise or abandon them.

Putnam summarises his distinction as follows:

> In short: if we think in terms of people using formalized languages, then we have to distinguish between the things that are done inside the language in accordance with whatever rules and regulations may have been previously decided upon and published, and the informal argumentation and discussion that takes place outside of the language, and which perhaps leads to a decision, in its turn to be duly formalized, to alter the language (Putnam, 1975:61).

Putnam deems this distinction to be deeply relevant to the analytic-synthetic distinction. Within the model of formalised languages, people decide upon and declare certain rules and it is rational to make a rule that something has always to be done. The rule is no less a rule that something has always to be done on account of the fact that the rule itself may someday be abandoned (Putnam, 1975:61).

Putnam is echoing Grice's reply to Quine's rejection of the analytic-synthetic distinction. Grice argues that there must be a distinction of this nature because of the widespread agreement (among philosophers) as to which sentences are analytic and which are synthetic. Whereas 'Bachelors are unmarried' is an applicant for analyticity, 'There is a book on the table' is not. Putnam, however, also suggests that the analytic-synthetic distinction is trivial. Analyticities generated by one-criterion terms are all trivial and so everyone can recognise them as analytic. These terms have no philosophical or scientific interest (Grice, 1989:198; Putnam, 1975:253).

What has come to the fore in the above discussion of Putnam's idea of the analytic and the synthetic is the identification of one-criterion terms (such as 'bachelor', 'hunter', etc.) that are trivial and can easily be recognised as analytic by any person (who is a competent speaker of the specific language). But the problem is that the notion of "criterion" seems no better of than "analytic" (*Stanford Encyclopedia of Philosophy*, 2017:13). The second distinction applies to general terms such as 'man' or 'tree'. The meaning of these terms is determined by their overall use (a form of meta-semantic holism) and there is thus no particular use that can be singled out as constituting *grasp* of the word. Putnam developed his cluster theory based on these general terms. A general term can be perceived to be a cluster of properties of these terms (of science). As already stated, Putnam introduced the notion of a 'law-cluster'. Cluster theory was further extended to the terms of science, such as the term 'kinetic energy'.

For Putnam, there is therefore a clear rationale for the analytic-synthetic distinction. While other philosophers agree, it is time to determine how Christian philosophy approaches this problem.

7. Christian philosophy and the distinction between the analytic and the synthetic

According to Dooyeweerd (1984:435), the question as to whether or not there are judgements containing an exclusively analytic synthesis, touches the distinction between analytic and synthetic judgments. Analytic judgments are sentences in which the connection of the predicate with the subject is thought through identity. In synthetic judgments, this connection is thought without identity: "Synthetical judgments are thus supposed to add a predicate to the concept of the subject not previously contained in the latter, so that this predicate cannot be inferred from the subject by analysing its elements" (Dooyeweerd, 1984:435).

Dooyeweerd is of the opinion that Kant's reasoning is far from clear because Kant makes a logical problem dependent on the linguistic structure of a judgment. What is of central importance in this regard is the copula forming the linguistic relation between that of which something is said in a signifying way and that which is expressed in the predicate. This means that the word 'is' does not always signify a logical relation of identity: "The word 'is', connecting the so-called 'linguistic subject' with an adjectival predicate, never means a relation of identity according to the logical aspect of a judgment" (Dooyeweerd, 1984:436). It is therefore impossible to identify the concept's body and extension logically. But why did Kant do this? What does Kant mean by the concept of a body? Why is "… bodies are extended …" not an empirical judgment, but a proposition that holds *a priori*? Why does 'heaviness' not belong to this concept?

Kant considers all empirical judgments to be synthetic. This, according to his dogmatic prejudice regarding the sources of knowledge, means that all judgments based on the sensory aspect of human perception are synthetic. All empirically established predicates in a judgment should be excluded from the concept of the subject.

Dooyeweerd argues that the above conclusion is contrary to the truth that "with regard to its logical aspect, every judgment is subject to the analytical principium identatis and the principium contradictionis" (Dooyeweerd, 1984:438).

All judgments are necessarily analytic in terms of the modal logical aspect. This includes theoretical judgments, originating from an intermodal synthesis of meaning, necessarily having an analytical structure according to their logical aspect.

Kant disregards the real modal-logical subject-object relation. In an objective-logical way, the statement that the concept 'heaviness' is not implied in the concept 'body' is, according to Dooyeweerd, not based on any justifiable grounds. Dooyeweerd states the following in this regard:

> … it appears that the concept 'heaviness' is necessarily implied in an objective logical sense in the concept 'material body'. Also in the subjective-logical aspect of the judgement the concept 'heaviness' should be implied in the concept 'body', in accordance with the analytical principium contradictionis (Dooyeweerd, 1984:437).

When considering the logical object function of empirical reality, the subjective energy effect of matter (being subject to the law of gravity) has been analogically objectified and thus enabled to attribute the characteristic of gravity to the general concept 'material body' (Dooyeweerd, 1984:437).

The attribution of the characteristic of gravity to the general concept 'material body' is furthermore possible because the original subjective energy effect of matter, in its subjection to the law of gravity, has been analogically objectified. This allows the attribution of the characteristic of gravity to the general concept 'material body'. Every judgment must have a logical (i.e. analytical) aspect in which it, per se, is subject to the basic principles of logical thought.

From a linguistic point of view, it can be said that the predicate either adds or does not add a new symbolic signification to the 'grammatical subject' of a judgment. This depends on the verbal meaning of subject and predicate. However, the descriptive words 'analytic' and 'synthetic' do not apply to the linguistic aspect of a judgment. The confusion of the 'analytic' and 'synthetic' judgements results from the absence of a proper analysis of the modal aspects (Dooyeweerd, 1984:445; Strauss, 2009:170).

This gives way to the rejection of the analytic-synthetic distinction: "We have had definitely to reject the distinction between '(purely) analytical' and 'synthetical' judgments and come to the conclusion that without any exception all theoretical judgments bear a synthetical character, just as without any exception they all have an analytical aspect" (Dooyeweerd, 1984:460).

Kant considers all 'empirical judgements' to be synthetic and, with regard to the origin of our knowledge, this means that synthetic judgements are judgements based on the sensory aspect of human perception. The 'predicate' of these judgements is not implied in the concept of their 'subject'. This understanding of judgements runs contrary to the fact that "… with regard to its logical aspect, every judgement is subject to the analytical principium identitatis and the principium contradictionis" (Dooyeweerd,

1984:438). All judgements are necessarily analytic when approached from the logical aspect of reality. This also holds true for theoretical judgements that, according to their logical functional, have an analytic structure.

At this stage it is clear that, according to Christian philosophy, the Kantian distinction between analytic and synthetic propositions is problematic. If this distinction is pursued, a typical semantical phenomenon like synonymy may be defined in terms of analyticity. Two sentences have the same meaning only if each one of them entails the other one in an analytic sense. I earlier mentioned that Quine emphasises the circularity of such an attempt. Analyticity is defined in terms of meaning, whereas meaning is defined in terms of analyticity. Linguistics has to accept (assume) 'meaning' as something basic and primitive. The same applies in the case of axiomatic set theory, for example, the primitive term 'member of' within the Zermelo-Fraenkel set theory (Strauss, 2009:170-171).

The question now arises as to how the terms 'analysis' and 'synthesis' are to be understood (in Christian theory) without reverting to the Kantian opposition of analysis and synthesis.

One crucial element of any concept is that it always unites. It brings together (synthesises) a multiplicity of properties (or features) that are constitutive building blocks of whatever is conceived. For instance, if a 'circle' is defined as a spatial figure of which the delimiting curve is equidistant from the centre, then various terms are involved in this concept. Examples are 'spatial figure', 'delimiting curve', 'equidistant' and 'midpoint'. Synonymous terms can also be found. 'Centre' can, for instance, be replaced with 'midpoint'. It, however, soon becomes clear that every attempt to produce further 'definitions' of the terms involved in this concept will unavoidably end up being mere synonyms. The important consequence of this is the indefinability of the most basic terms operative in any specific concepts (Strauss, 2009:12).

Conceptualisation and definition therefore rest upon the acceptance and employment of primitive terms. These key terms are themselves not open to (rational) conceptual definition. The basis of these (irreducible) primitives forms the restrictive boundary of rationality. This is one of the most fundamental perennial issues in philosophy, namely "the quest to account for the coherence of what evinces itself as irreducible, i.e. what we [have] designated as the *coherence of irreducibles*" (Strauss, 2009:13).

The distinction between analysis and synthesis becomes relevant in the sense that analysis is the ability to identify and distinguish. Furthermore, identification is what conceptualisation is all about – i.e., bringing together,

which amounts to nothing more than “synthesizing or uniting a multiplicity of logically discerned properties into the unity of a concept” (Strauss, 2009:14). To synthesise does not oppose analysis – in fact, it is part of identification, which constitutes the one leg of analysis. The other leg is distinction. What is also important is that analysis is equivalent to (synonymous with) abstraction. Another important issue is that the logical-analytical function is foundational to the lingual abilities. It is further important to realise that, in ordinary life experience, logical thinking is embraced by an awareness of a more-than-logical-diversity and that these multiple contexts merge within this diversity: “This pre-scientific awareness is not something that ought to be eliminated or denied by scholarly thinking, since it forms the unavoidable basis and starting point of scientific reflection” (Strauss, 2009:15).

Abstraction and analysis are synonymous inasmuch as ‘lifting out’ and ‘disregarding’ are equivalent to identifying and distinguishing. Modal abstraction and modal analysis constitute the distinctive features of theoretical activities. For example, biology as a science owes its existence to the ontic reality of the biotic aspect and the human logical ability to focus its theoretical attention on the phenomena evinced within this aspect. The features of the biotic aspect are united in the acquired concept. ‘Synthesis’ therefore means ‘bringing together’ the characteristics of one particular aspect, as they are logically objectified within the analytical aspect. Synthesis does not stand between the logical aspect of our act of thought and a non-logical aspect (Strauss, 2009:360).

The distinction between the factual object side and the factual subject side of the logical analytical aspect must not be one-sidedly emphasised. This aspect (in its modal universality) embraces whatever there is and therefore underlies the ability humans have to objectify logically whatever is identifiable and distinguishable. Knowledge is embedded in a conceptual framework that co-determines knowledge acquisition. It is related to what is logically objectified (compare here the difference between the connotation and the denotation of a word or sentence occurring within the lingual subject-object relation) (Strauss, 2009:360).

Concrete abstraction is nothing but continually classifying (identifying) entities of all kinds by placing them within certain categories. This means that one is able to identify a particular house as a house (i.e., belonging to the category of houses). Without these general concepts (like house, aeroplane, etc.) concrete abstraction is impossible.

Logical conceptualisation precedes the matching of lingual abilities. From the perspective of modal distinctness and coherence, language use is built upon

the basis of logical skills. Because concepts are employed in statements, the foundational role of the logical function is furthermore highlighted by the importance of the distinction between concepts and words.

Whereas from a linguistic perspective, concrete utterances are regarded as sentences, from a logical-analytical perspective, they are regarded as statements. What then about the distinction between concepts and statements? In this regard, a logical-analytical approach needs to be adopted. The basic role of the human logical function in conceptualisation also explains why a concept (e.g. dog) cannot be translated in many different languages. The distinction between words and concepts is clearly demonstrated in this regard: "The word 'cat' could be translated in many different languages, but the concept 'cat' transcends any particular language – it displays an inherent universality" (Strauss, 2009:16).

Frege's distinction between 'sense' and 'reference' refers to the distinction between 'denotation' and 'connotation'. Connotations are related to a positive appreciation of reductionism. Unrelated connotations are attached, for instance, to the term 'reduction' in different special sciences such as mathematics and chemistry. The idea of irreducibility precludes reductionism and a meaningful option is therefore to investigate interconnections of what is irreducible. This, according to Strauss, is the challenge of all scholarship, namely "to understand *in terms* of the 'coherence of irreducibles'" (Strauss, 2009:7).

Another example of a connotation is the term 'sociation', suggesting that the term 'association' is close to the core meaning of the social. Another (specific) connotation of 'sociation' is certain kinds of social collectives called *associations* (Strauss, 2009:97).

Synonyms like 'uninterrupted', 'connected' and 'coherent' simply repeat what is meant by continuity. These terms do not define it. It is possible to replace a spatial term like 'domain' with terms like 'range', 'scope' or 'sphere'. Mathematicians, however, may attach slightly different *connotations* to these terms although these terms share a generic spatial meaning (Strauss, 2009:235).

Following the reasoning of Strauss (and of Dooyeweerd and Quine) on the (Kantian) analytic-synthetic distinction, it is clear that this is a contested distinction. Although Quine is sceptical about the analytic-synthetic distinction, other philosophers such as Putnam, Grice and Strawson still believe that there are analytic statements. According to Putnam, "[t]here they are, the analytic statements: unverifiable in any practical sense, yet we do seem to

have them" (Putnam, 1975:68). The reason that they still believe in analytic statements is because they have no insight into the intermodal coherence of the modal aspects of reality. In Christian philosophy, 'analytic' and 'synthetic' are understood to mean something else. However, Strauss cautions: "Strictly speaking one should say that it is through logical objectification (identification and distinguishing) that the properties of what has been conceived are brought into the logical unity of a concept" (Strauss, 2009:147).

But what about the 'synthetic *a priori*'? As stated earlier, Kant's category of the 'synthetic *a priori*' became a pivotal concern in his work. According to Strauss (2009:420), Kant grapples with the true nature of modal universality in his pursuit of the synthetic *a priori*.

Modal universality refers to the universality of an aspect in its own sphere. Modal universality is closely related to modal laws. However, to understand modal universality, type laws also need to be acknowledged. The typical nature of entities tends to colour their modal functions. Type laws are only applicable to a limited class of entities.

To comprehend Kant's position in this regard, it is important to understand the difference between modal laws and type laws. Modal laws hold for whatever there is – an example being Newton's Law of Gravitation. This law holds universally for all physical entities (Strauss, 2009:68). Type laws refer to how the typical nature of an entity specifies the modal meaning of the aspects in which it functions. These laws moreover do not hold true for every possible entity but only for a limited class of entities.

This distinction between modal laws (that hold true for whatever there is) and type laws (of any particular kind of entity) explains why Kant distinguished between his universally valid *a priori* thought categories, on the one hand, and the empirical laws of nature, on the other: "However exaggerated and absurd it may sound, to say that the understanding is itself the source of the laws of nature, and so of its formal unity, such an assertion is none the less correct, and is in keeping with the object to which it refers, namely, experience. Certainly, empirical laws, as such, can never derive their origin from pure understanding. That is as little possible as to understand completely the inexhaustible multiplicity of appearances merely by reference to the pure form of sensible intuition. But all empirical laws are only special determinations of the pure laws of understanding, under which, and according to the norm of which, they first become possible" (Kant, 1929: 48; A128).

Kant's distinction between pure understanding and empirical laws explained above corresponds to the distinction between modal laws and typical laws.

Kant therefore deserves praise for his struggle with the dimension of modal universality (Strauss, 2009:421).

8. Conclusion

As indicated, Quine first criticised the distinction between the analytic and the synthetic, calling this distinction an unempirical dogma (Quine, 1961:37). An important contribution of Quine's empiricism (without the dogmas) is that the re-evaluation of some statements entails re-evaluation of others. However, Putnam disagrees with Quine, arguing that there are both analytic and synthetic statements:

> Some statements in natural language really are analytic; others may be *construed* as analytic; still others really are synthetic; others *may be construed* as synthetic; still other statements belong to still other categories or may be construed as belonging to still other categories (Putnam, 1975:65).

In Christian theory, both Dooyeweerd and Strauss reject the analytic-synthetic distinction. This distinction is problematic because there is no insight into the inter-modal coherence of the modal aspects of reality. Strauss highlights that 'primitive terms' emphasise the one element of the problem regarding the coherence of irreducibles. Strauss bases the coherence of irreducibles on the following argument:

> Since the modal aspects are fitted into the cosmic order such that some are foundational to others, it is clear that this only makes sense if the aspects are irreducible. But because this latter trait crucially depends upon the core meaning of every aspect that transcends conceptual definition, some examples of the indefinability of the meaning nucleus of an aspect will enhance our understanding of aspectual uniqueness, and at the same time it will provide a deeper insight into the fact that conceptual knowledge rests upon a basic cosmic diversity that ultimately cannot be comprehended conceptually (Strauss, 2009:170)

And this is the core problem of the Kantian distinction between analytic and synthetic: An attempt is made to define a typical semantic phenomenon such as synonymy in terms of analyticity – reducing the linguistic aspect to the analytical aspect.

Although the terms 'analysis' and 'synthesis' are used differently in Christian philosophy, Strauss cautions that it is a mistake to oppose 'analysis' and 'synthesis', because 'synthesis' is another leg of 'analysis'. The analytic does not stand in opposition to the synthetic, rather the synthetic is part of identification, which constitutes one leg of analysis. Synthesising amounts to

nothing more than uniting a multiplicity of logically discerned properties into the unity of a concept – a fact overlooked by Putnam in his idea of a general term as a cluster of properties.

Although Kant's distinction between analytic and synthetic is problematic, his concern of the *a priori* synthesis deserves credit in the sense that he implicitly dealt with modal universality.

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