# Analyzing the Analytic-Synthetic Distinction

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#### Introduction

## **Background**

The analytic-synthetic distinction has become a fixture in empiricism over the last several centuries. W. V. Quine asserts that a "fundamental cleavage between truths which are *analytic*, or grounded in meanings, independently of matters of fact, and truths which are *synthetic*, or grounded in fact," is an essential dogma of modern empiricism.¹ While some form of this distinction can be traced all the way back to Aristotle's distinction of essences and accidents, Gottfreid Wilhelm Leibniz (1646-1716), David Hume (1711-1776), and most prominently, Immauel Kant (1724-1804), are responsible for making the analytic-synthetic distinction central to philosophy.

At the core of the rationalistic idealism of Leibniz is a sharp dichotomy between what he called truths of reason and truths of fact. Truths of reason have to be true in all possible worlds. They cannot possibly be false because they are logically necessary.

Hume's empiricism was rooted in dividing the field of knowledge into relations of ideas, which are purely logical and geometric truths known apart from experience, and matters of fact, which are derived from experience. Relations of ideas tell us nothing about the "real world." They are purely formal and abstract. By contrast, matters of fact are contingent. The contrary of every matter of fact is possible because they are not logically necessary.

It was Kant who introduced the terminology "analytic" and "synthetic" to describe this type of cleavage. Kant's analytic judgments are similar, though not identical, to Leibniz's truths of reason and Hume's relations of ideas. Analytic judgments connect a subject and predicate in such a way that the concept of the predicate is included in the concept of the subject. On the other hand, Kant called synthetic judgments "expanding judgments" because the predicate could not be extracted from the subject by mere analysis. Kant also distinguished between a priori and a posteriori judgments. "A priori" judgments are made independently of experience, whereas "a posteriori" judgments are made after experience. Kant then explained that three types of statements are possible: analytic a priori, synthetic a posteriori, and, remarkably, synthetic a priori. The statement, "All bachelors are male," is analytic a priori because it is known independently of experience, from mere analysis of the terms. "The grass is green" is an analytic a posteriori judgment because it can only be known from observation and it adds to our knowledge of the world. Finally, Kant classified mathematical judgments as synthetic a priori. "3+1=4" is known independently of experience (and thus is a priori), but it is synthetic because one cannot get "4" from a mere analysis of "3" and "1."<sup>2</sup>

<sup>&</sup>quot;One Dogma of Empiricism," in Michael F. Goodman and Robert A. Snyder, *Contemporary Readings In Epistemology* (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1993), p. 133.

<sup>&</sup>lt;sup>2</sup>See Lewis Beck White, editor, *Eighteenth Century Philosophy* (New York: The Free Press, 1966), p. 244ff.

This paper will not focus on Kant's three types of judgments. Modern philosophy has, for the most part, identified the analytic with the a priori, and the synthetic with the a posteriori. In other words, the distinction between analytic and synthetic has become virtually synonymous with the distinction between a priori and a posteriori, as C. I. Lewis explains:

Traditionally a statement which can be certified by reference exclusively to defined or definable meanings is called analytic; what is non-analytic being called synthetic. And traditionally that knowledge whose correctness can be assured without reference to any particular experience of sense is called a priori; that which requires to be determined by sense experience being called a posteriori....The thesis here put forward, that the a priori and the analytic coincide, has come to be a matter of fairly wide agreement...There are no synthetic statements which can be known to be true a priori....Apart from what is logically necessary, we know facts of existence only by experience and through induction.<sup>3</sup>

Because most contemporary philosophers collapse the a priori into the analytic and the a posteriori into the synthetic, this paper will evaluate only the distinction between what are commonly called analytic judgments and synthetic judgments. This distinction has played a crucial role in the twentieth century epistemology, especially logical positivism.

# The Analytic-Synthetic Distinction

Philosophers, of course, have always sought for certain knowledge, for statements that are incontestably true and immune to later revision. This search for the unconditionally and universally true, however, has often been at the expense of gaining meaningful information about the world. Philosophers who want to draw a sharp distinction between analytic and synthetic judgments find themselves in just such a position -- continually sacrificing meaningful information for guaranteed certainty. The analytic-synthetic distinction impales philosophy on the horns of a dilemma. We are forced to choose between the certain but uninformative on the one hand, and the significant but merely probable on the other. Thus, there is a heavy price to pay for achieving certainty: the only certain truths we have are trivial and do not add to our knowledge of the world because they are true by definition. On the other hand, while synthetic statements extend our knowledge about the world, they are contingent and must be held in only a tentative manner. They will always be somewhat uncertain.

How should we evaluate this distinction between synthetic and analytic judgments? Is it really a clear cut distinction? One might think so, just by surveying the philosophical landscape. This distinction is taken for granted so often, it has become, as Quine put it, a

<sup>&</sup>lt;sup>3</sup>An Analysis of Knowledge and Valuation (Illinois: Open Court, 1946). See also Anthony Flew, A Dictionary of Philosophy, revised second edition (New York: St. Martin's Press, 1984), p. 12.

"dogma" of empiricism. While this "dogma" may be popular, is it defensible? Can the analytic-synthetic distinction be drawn in a plausible and consistent manner?

Before we can challenge this distinction, we must know how it is commonly made. What exactly is it that qualifies a statement as analytic, thus rendering it absolutely certain? How can analytic judgments be isolated and justified? Is the distinction one that should be self-evident and equally obvious to all, or can only trained experts identify such judgments? Is the distinction really distinct?

As one might expect, there have been a number of attempts to draw the analytic-synthetic distinction in a clear and recognizable fashion. I do not think any of these attempts are successful. They seem lapse into a question-begging circularity in which analyticity is merely explained in terms of itself, reduce the analytic-synthetic distinction to a matter of degree, or make the distinction subjective and psychological rather than a matter of rigid logical analysis. In addition, this distinction seems to assume a certain degree of precision in ordinary language that is not normally available.

There seem to be at least three non-equivalent ways of attempting to draw the analytic-synthetic distinction. First, as stated above, is Kant's version of the distinction, based on conceptual containment. Kant considered a judgment analytic if the concept of the predicate was contained in the concept of the subject. As he puts it, in an analytic judgment, "nothing is added by the predicate to the concept of the subject, but the concept is only divided into its constituent concepts which are always conceived as existing within it, though confusedly." By mere mental analysis, we will find the predicate to be necessarily connected with the subject. For example, "All bodies are extended" is taken by Kant to be an analytic statement because the very concept of a body includes the concept of having extension. For Kant, a synthetic statement was one which was not characterized by conceptual containment.

A second attempt to draw the analytic-synthetic distinction in a plausible way is to define analytic truths in terms of logical laws. On this account, analytic statements are those which can be proven or disproven by means of logic alone. An analytic statement is true if its denial involves a contradiction. Synthetic judgments are those which must be evaluated by some means other than logical laws. They are subject to verification (or falsification) on the basis of empirical investigation. Gottlob Frege (1848-1925) and many logical positivists have drawn the distinction this way.

Yet another way to postulate the distinction between analytic and synthetic judgments is in terms of definitions. On this account, analytic truths are true by virtue of the meanings of the words in the statement, independently of the facts of the world. For example, "All bachelors are unmarried males" is analytic because being male and unmarried define the word "bachelor." Synthetic statements are true or false depending on whether or not they

<sup>&</sup>lt;sup>4</sup>The following is based loosely on Anthony Flew's account in his *A Dictionary of Philosophy*, revised second edition (New York: St. Martin's Press, 1984), p. 12. <sup>5</sup>White, *Eighteenth Century Philosophy*, p. 245.

describe the actual state of affairs in the world.

While there have been other attempts to draw the analytic-synthetic distinction (such as Rudolf Carnap's state-description account critiqued by Quine<sup>6</sup>), virtually all of these additional attempts to explicate the distinction are simply nuanced versions of one of the three accounts summarized above. Thus, if we can refute these three accounts, we have repudiated the analytic-synthetic distinction altogether.

## Analysis

### **Predicate-Subject Conceptual Containment Account**

Kant's distinction, based on subjects and predicates, can be critiqued in a number of ways. First of all, post-Kantian developments in logic have made it possible to deal with sentences that are not in subject-predicate form, such as relational expressions. However, Kant's distinction assumes that all statements will be in subject-predicate form. Because Kant's distinction can only deal with one class of statements, it is simply inadequate.

Secondly, the conceptual containment account is actually quite psychological. It is far from drawing an airtight distinction. Quite often, whether or not a person considers a subject to be contained in a predicate will be relative to that person's knowledge, inclinations, personality, etc. For example, it was common in the ancient world (and is still common in non-scientific cultures) to classify whales with fish. Such a person would consider the statement "A whale is a fish" to be analytic -- the concept of fish includes whale. A Kantian might reply that this mistaken evaluation is due to the person's ignorance. A biologist would even claim that the statement, "A whale is a fish" is analytically false. But we must not make such hasty judgments. After all, if the person is not working with scientific definitions of "fish" or "mammal," he has not necessarily misclassified the whale. After all, there are obvious analogies between whales and fish. If someone who has not taken a modern biology class defines "fish" simply to be an aquatic animal, he is perfectly justified in including whales in the category of fish. In other words, for him, according to his vocabulary and definitions, the truth is analytic. Thus, what might be analytic for one person could be synthetic for another and Kant has given no way to resolve such disputes.

Similarly, the conceptual containment account fails in cases where there are intermediates or hybrids. While all modern biologists may agree that "A whale is a mammal" is an analytic truth, classification of a creature like the duck-billed platypus may not be as clear cut. Depending on what features are selected to classify mammalian animals, the statement, "A duck-billed platypus is a mammal" may or may not be analytic. A more complex example is the protozoa Phytomastigophorea, which has plant-like food production (photosynthesis) and animal-like locomotion (flagella). Can mere analysis of the concept of Phytomastigophorea enable us to classify it with certainty? It seems any analysis could be legitimately challenged.

<sup>6&</sup>quot;One Dogma of Empiricism," p. 134f.

Furthermore, Kant's use of containment is not entirely clear. How do we know what it means for a predicate to be "contained in" a subject? Does it mean that the predicate defines the subject? Does it mean that we associate the subject and predicate with one another? Does it mean there has to be some sort of necessary connection? It seems this is once again psychological and may yield different determinations for different people. A person's imagination and previous experience certainly enter the picture. To refer back to Kant's example, "All bodies are extended," what are we to do if someone claims to be able to imagine a body without extension? Should we consider such a person to have a brilliant insight? Or does he misunderstand the meaning of the words "body" and "extension"? Perhaps he has a very vivid imagination, while ours is quite dull -- or, perhaps, he has not yet grasped how to use even the most simple terms in ordinary language! In the end, Kant has left the analytic-synthetic distinction rather unclear.

# Logical Laws and the Analytic-Synthetic Distinction

Can a logical approach save the analytic-synthetic distinction? It seems not. If analytic statements are taken to be statements whose denials are self-contradictory, the problem of circularity becomes unavoidable. As Quine says, this account

has small explanatory value; for the notion of self-contradictoriness, in the quite broad sense needed for this definition of analyticity, stands in exactly the same need of clarification as does the notion of analyticity itself. The two notions are the two sides of a single dubious coin.<sup>7</sup>

Making analyticity depend on logic raises some difficult problems. We must ask about the status of the logical laws used to prove analyticity. Are these laws analytic or synthetic? It is unlikely anyone would claim that laws of logic are derived from experience. Even die-hard empiricists like Hume have recognized the a priori character of logical laws. Besides, if these laws are derived from experience, they are contingent and dependent on fact and therefore cannot serve as a basis for making a distinction between analytic and synthetic judgments. On the other hand, if they are analytic, all we have done is explain analyticity in terms of analyticity. In this case, to say that analytic truths are those that are purely logical is merely to say that analytic truths are those that are analytic! This is hardly helpful.

Secondly, it is hard to see how the denial of many statements which are commonly accepted as analytical involves a contradiction. The statement "All men are rational" is usually taken to be analytic. But the denial of this statement does not seem to involve any obvious logical contradiction. How is the denial of the statement "All men are rational" equivalent to a denial of "A cannot be A and not A at the same time in the same sense"? To assert that some men may not be rational (the senile, the retarded, infants, etc.) may or may not be true, but either way it is difficult to see how it is the same as asserting "A and not-A." It is very hard to see how most analytic statements can be

<sup>&</sup>quot;One Dogma of Empiricism," p. 135.

reduced to logical truisms. The analytic-synthetic distinction remains obscure. Logic cannot serve as a rescuing device for the distinction.

# Analyticity as True by Definition

Finally we must analyze the position of those who claim that analytic judgments are those whose truth or falsity depends on the meanings of the words in the statement. In other words, it is definition alone that determines the analyticity of a statement. On this view, analytic statements must be evaluated in light of language, not the world of fact. Supposedly, language can yield the kind of precision we need for making certain judgments.

As Quine points out, when we are told that the judgment "All bachelors are unmarried males," is analytically true, we must immediately ask how we came to know this. Someone may appeal to a dictionary, claiming that "unmarried" and "male" make up the definition of the word "bachelor." However, it is simply not accurate to view a dictionary as a book of analytic truths. First of all, as Quine goes on to show, the work of the lexicographer is largely that of an empirical scientist. The lexicographer bases his definitions on synonymy observed in a natural language. Languages are learned through experience; we are not born with a built-in a priori vocabulary. Children (usually) learn words not by looking them up in a dictionary, but by listening to others communicate. In other words, the lexicographer works on a Wittgensteinian principle, generally determining the *meaning* of a word from its observed *use* in a language. But can the fallible, limited observations of dictionary writers serve as the basis of absolutely certain analytic truths? Why should we accept a dictionary as law? Lexicography is far from being a perfect science.<sup>8</sup>

Can appeal to synonymy save the analytic-synthetic distinction here? It seems not, for synonymy itself is in just as much need of explication as analyticity. Definitions cannot serve as the basis of synonymy; if anything, it is pre-existing synonymies that make the work of definition possible. As Quine says, "Certainly the 'definition' which is the lexicographer's report of an observed synonymy cannot be taken as the ground of the synonymy." A lexicographer defines "bachelor" as "unmarried male" because he believes they already function as synonyms in the language. This the notion of synonymy presupposed by the lexicographer stands behind his definitions. It is this concept of synonymy that must be explained if the analytic-synthetic distinction is to hold.

What exactly does it mean then for two terms to be synonymous? How related must they be? We might propose "interchangability in all contexts without change of truth value" as a way of handling synonymy. Obviously this has to be qualified to focus solely on the meaning of the expressions (and not, for example, the number of letters or sound of the

<sup>\*</sup>*Ibid*, p. 133.

<sup>9</sup>*Ibid*, p. 135.

<sup>&</sup>lt;sup>10</sup>*Ibid*, p. 137

words). But, as Quine demonstrates, it is impossible to give an account of such cognitive synonymy that does not end up presupposing analyticity, and thus reasoning in a circle. Besides, many expressions may be interchangeable without altering the truth value of the statement, but may not be synonymous. For example, there is extensional agreement between the statements "All creatures with a heart" and "All creatures with kidneys" even though they are far from being synonymous. Another common example would be the phrases "morning star" and "evening star." The interchangability is based on accidental factors, not synonymy. Thus, it is more difficult than it might appear at first glance to determine when two expressions have the same meaning.

Clearly then, definitions cannot serve as the basis for analyticity. Definitions rely on synonymy, and synonymy is no more clear than analyticity itself. Besides, synonymies are the result of observed patterns in a language. Because they are based on empirical factors, on any normal account of the analytic-synthetic distinction, synonyms would qualify as synthetic judgments, subject to revision. Thus, trying to root analyticity in synonymy ends up making analytic truths depend on synthetic truths! The observations of a lexicographer are, of course, fallible, and therefore cannot provide the key to certainty that analytic judgments are supposed to provide. Any account of the analytic-synthetic distinction based on word meanings is bound to fail.

If lexicography is indeed an empirical science, there is another problem with rooting analytic truths in meanings of words. If acquiring definitions depends on experience, then no sentence can receive its meaning from language alone, apart from extra-linguistic factors. In fact, the result is that the boundary between language and experience is very tenuous, and therefore the distinction between analytic and synthetic judgments is weakened. Language, it seems, is a part of our experience, not something, isolated from it. Language itself is not known entirely apart from experience; it is not purely analytic. The proposition, "A bachelor is an unmarried male" may seem to have analytic qualities, but how did we come to know the meanings of the words in this sentence? How did we come to know how to put a sentence together grammatically? Learning these tools has at least some experiential component.

But it seems there is an even more profound difficulty with basing analyticity on definitions. Words simply cannot provide the kind of infinite precision the advocates of the analytic-synthetic distinction want them have. Words have "fuzzy" boundaries; their meanings can often be stretched or diminished in a dynamic way. Moreover, words are not purely static entities, but can change meanings over time, subjecting so-called analytic truths to the fluctuations in a particular culture's language. No language is ever entirely free from revisability.<sup>11</sup>

Because human language has a degree of inescapable vagueness inherent in it, it can never give an absolutely transparent picture of the world. Even the most familiar terms

<sup>&</sup>quot;This is obviously true of natural languages. But it is true of artificial formal languages as well. Because the rules of a formal language are merely conventional, they can be arbitrarily altered and thus are not guaranteed.

have some ambiguity. Take, for example, the term "rain." We all know what rain is. We all know when it is raining and when it is not. Or do we? How do we classify a heavy mist? Or sleet? Some may call these conditions rain, while other would not. Imagine a scenario in which a mist was coming down. A baseball game may not be *rained out* in such conditions, but on the other hand, you may wear your *rain coat* to the game. Whether or not it is raining becomes a matter of perspective. Wittgenstein pointed out similar ambiguities in the term "game." Is the statement "Games have winners and losers" analytic? Do all games, by definition, involve winning and losing? Certainly some games do, but other events we call "games" are played just for fun, with no winners or losers. As Wittgenstein pointed out, sometimes we have to settle for family resemblances rather than precise definitions of words.

The analytic-synthetic distinction also fails to capture certain shades of meaning, or emphases of certain terms. For example, we use the word "bachelor" as synonymous with "unmarried male." But what about a widower? A widower is certainly an "unmarried male" but he may not want to call himself a "bachelor" -- especially if he has children. "Bachelor" normally refers to someone who has never married, and may even connote a certain kind of lifestyle that does not characterize all "unmarried males." In other instances, our vocabulary is shown to be too imprecise to adequately describe unique situations. What about a man who has been living with a woman, without marrying her formally? Is he still a bachelor? The situation is complicated by the fact that at some point, some states would come to recognize the couple as married under common law, while at the same time other states would not. "Bachelor" does not seem to be the appropriate term in such cases. The situation seems to fall through the cracks of our everyday language.

Not even technical terms totally escape this vagueness. For example, theologians and philosophers have debated for centuries over how to define the term "miracle." Is a miracle a violation of natural law, an immediate act of God, a surprising and unexpected event, or something else? When a word itself is subject to such widespread understanding, it is hard to imagine it ever functioning in an analytic judgment. The term "free will" faces similar difficulties. Is freedom ethical (the ability to do good or evil), or is it metaphysical (the absence of deterministic forces on one's will)? Whether the statement "Man has free will" is analytic or synthetic will depend for many people on the way this free will is defined, and yet there is no universally accepted definition. It should be obvious that definitions are not neutral. When disputes arise over definitions, the analytical quality of statements involving the debated terms rapidly dissolves.

Not only does technical terminology defy the analytic-synthetic distinction, but other forms of speech do not seem to fit its rigid categorization either. Poetic language certainly suffers at the hands of the analytic-synthetic distinction. This distinction fails to deal with figures of speech, metaphors, similes, analogies, etc. A poem could express the truth "All bachelors are unmarried males" in a wide variety of creative ways that may not be immediately obvious in virtue of the meaning of the words, but may be no less certain

<sup>&</sup>lt;sup>12</sup>Consider, for example, the expression "bachelor pad."

than a synonymous prosaic statement.

Analytic truths also take a blow from the fact that dictionaries need to be updated from time to time. The meaning and usage of words is not static and unchanging; there is nothing "necessary" about it. Hence, trying to base analytic truths on definitions, which are supposedly immune to revision and absolutely certain, would seem to be risky business. This true even of scientific terms. For example, at one point the statement "Atoms are indivisible" would have been widely accepted as analytic, but not so today. At one point in history, Euclidean geometry and Newtonian physics appeared to provide analytic truths. However, the rise of Riemannian geometry and Einstein's relativity theory made analytic truths in these areas debatable.

Analyticity cannot be explained in terms of semantics. It seems that words are too fluid to provide an adequate basis for analytic truth all by themselves. Not only is it impossible to define words with absolute precision, but words are also "moving targets" so it may be hard to always pin down just what they mean at any given time. There is no perfect human language, of either a formal or natural sort.<sup>13</sup>

#### Conclusion

## **Implications for Logical Positivism**

What conclusions can we draw from the failure of the analytic-synthetic distinction? It should be obvious that the implausibility of this distinction will undercut any philosophical system that relies heavily on it. Let us use logical positivism as an example.

Logical positivism was a philosophical school that arose out of the Vienna Circle in Austria in the 1920s and 1930s. Logical positivism was strongly influenced by the empiricism and skepticism of Hume, emphasizing a scientific approach to the world and repudiating any and all metaphysical claims.

Logical positivists made a distinction between two kinds of sentences, which may be labeled as analytic and synthetic. Analytic statements are those known by means of logic and definition (linguistic analysis). While analytic statements may be true, they tell us nothing significant about the world. The predicate is merely a restatement of the subject. Synthetic statements do yield meaningful knowledge about the world but are only probable because they are verified by means of empirical methods. Thus, the analytic-synthetic distinction was central to logical positivism.

<sup>&</sup>lt;sup>13</sup>The above account of the vagueness of language is based on the insights of John Frame, *Doctrine of the Knowledge of God* (Phillipsburg, New Jersey: Presbyterian and Reformed Publishing Company, 1987). See also Vern Poythress, *Symphonic Theology: The Validity of Multiple Perspectives In Theology* (Grand Rapids, Michigan: Zondervan Publishing House, 1987).

As noted earlier, there is a high price to be paid in drawing the analytic-synthetic distinction, but logical positivists were more than willing to pay it (at least for a while). Mathematics and logic were considered meaningful and true, but only because they were tautologies. They reveal nothing about the way the world actually works. More devastatingly, logical positivists claimed any truths that were not tautologies or verifiable empirically were considered not merely false, but meaningless. Thus they launched a fierce attack on metaphysical and theological propositions.

Synthetic judgments, then, according to logical positivists, are the only statements that actually tell us something new and interesting. Synthetic judgments have meaning because they can be empirically confirmed. They are not merely linguistic, but are factual. Logical positivists claimed synthetic judgments are known by what logical positivists called the verificationist principle, or verificationist theory of meaning. This principle demanded observational proof for the truthfulness of any meaningful statement about the world. Science became the unquestioned authority and the model for gaining valuable knowledge.

But we must ask why empirical procedures should be accorded such privileged status. Why should we accept the verificationist principle? Have logical positivists examined every proposition ever uttered or written so that they are justified in limiting meaningful statements to those which are verified by the senses? No, of course not. In fact, logical positivists cannot consistently make *any* universal negative statements about the world because no human has universal experience. The statement, "No proposition is meaningful unless it is empirically verified," is itself meaningless according to logical positivism.

The verificationist principle defeats itself because it makes an unverifiable universal statement. But it also fails because it cannot be directly confirmed empirically. No one can ever experience the truth that only empirically verifiable statements are meaningful. It should also be obvious that the verificationist principle is not true by definition. It is not a tautology and it is not an analytic truth. Thus, we must conclude that reliance on the verificationist principle is a matter of sheer arbitrary prejudice, of blind faith. If the verificationist principle is meaningless on its own terms and refutes itself, it can hardly be used to undercut metaphysics, religious language, etc.

Logical positivism is internally flawed in another respect as well. The logical positivists promoted the verificationist principle with the hope of weeding metaphysics out of philosophy, but the empirical methods presupposed by the principle cannot stand without metaphysical underpinnings. Metaphysical beliefs about the uniformity of nature and the reliability of human senses must be assumed and defended in order for observation to be considered trustworthy.

Finally, the verificationist principle, if accepted, proved too much -- or perhaps it would be better to say it took away too much. After all, verificationism ruled out all knowledge of history and scientific generalizations, a loss not even logical positivists could live with. Historical propositions rely on the authority of those who observed the recorded events.

Such statements are not analytic, but they are not, strictly speaking, synthetic either. Since history cannot be verified empirically apart from time travel, logical positivism must deny any meaning whatsoever to historical claims. Ironically, logical positivism ends up relegating "historical talk" to the same category of meaninglessness as "God talk." But logical positivism threatens the meaningfulness of scientific statements as well. Scientists hope to formulate laws that describe the world of experience, but if the verificationist principle is applied rigorously, science can never do this because universalizations can never be fully verified. The verificationist principle will not allow universalizations to be drawn from a finite number of observations; in other words, it cannot supply a foundation for the inductive principle. The verificationist principle appears to grant science special status at first; in realty it merely cuts science loose from the theoretical or metaphysical foundation it must have in order to be a rational enterprise. To lose history and science to meaninglessness is more than most philosophers can stand, and so logical positivism was short lived. It has been replaced in contemporary philosophy by forms of empiricism that attempt that to be less rigid or that turn the verificationist principle inside out (falsificationism). But of course, even these revisions to the empiricist's program have not resolved all the difficulties.

Why hammer on logical positivism in this way? Because it is an important illustration of the consequences of drawing an airtight distinction between analytic judgments and synthetic judgments. Categorizing statements this way forces philosophy down an epistemological dead end. Knowledge simply cannot be reduced to definitions and observations.

## Final Thoughts on the Structure of Human Knowledge

As Quine has demonstrated, and hopefully as this paper has confirmed (though from a different philosophical perspective), the analytic-synthetic distinction is an unwarranted dogma. Human thought is simply not cut up into analytic and synthetic pieces. Our cognitive processes do not follow this pattern. The idea that all our statements can be neatly divided into two classes, those which are trivial yet certain, and those which are factually significant yet contingent, is not viable. Even if the analytic-synthetic distinction were philosophically defensible, nothing is to be gained from this kind of categorization. What good are certain truths that tell us nothing about the real world? How can we call synthetic judgments "truths" if they are always subject to revision? What is our hope if we are left to choose between trivial certainties or fallible empirical claims?

The rejection of the analytic-synthetic distinction does not imply that there are no absolutely certain truths. But it does mean that this certainty cannot be sought merely in definitions or sentence structure alone. Every thinker holds some beliefs to be self-evidencing and therefore immune to revision. To borrow an illustration, these convictions are at the center of one's web or network of beliefs and therefore are not easy to overthrow. They are what we might call "presuppositional" in character. These beliefs are foundational to one's conceptual scheme and provide a paradigm, or framework of interpretation. One's conceptual web is not simply a matter of definitions; it has factual

#### content.

When confronted with a proposition or observation that conflicts with a previously held belief, we do not know in advance if someone will revise his belief or not. A person's epistemological hierarchy is not transparent. If the new data conflicts with a firmly held belief, the new data may be rejected. If it conflicts with a loosely held belief, that belief may be revised to accommodate the new data, or may even be discarded altogether. A simple illustration may help. Suppose a mentally ill man believes he is dead. His psychiatrist tries for a long time to convince him otherwise. Finally, the psychiatrist asks him to do a research paper on whether or not dead men bleed. The patient comes back with his report, announcing dead men do not bleed. The psychiatrist promptly pricks his patient's finger, and blood becomes visible. The mentally ill man exclaims, "What do you know! Dead men do bleed!"

As Quine has said, "Our statements about the external world face the tribunal of sense experience not individually but only as a corporate body." Quine has uncovered an important feature of human thought here, one that the analytic-synthetic distinction overlooks. Beliefs are not held or tested atomistically, in a one-by-one fashion. Rather beliefs come in clusters, forming a worldview, which is then used to interpret experience. One's worldview as a whole confronts the data of language and experience. Simple appeals to language (analyticity) or observation (syntheticity) do not reveal whether or not our beliefs will be altered when challenged. People will grant revisionary immunity to certain core beliefs not on the basis of linguistics, but on the basis of an overall worldview. Those beliefs that are held most dearly and form the heart of one's conceptual scheme will be the hardest to let go and the last we let go. Indeed, all of us have beliefs we will cling to *regardless of almost anything!* Only a revolution in our conceptual framework will alter these most central beliefs. These beliefs often appear to be almost insulated from testing; indeed, they are the standard by which everything else is tested. They are taken as certain, but certainly are not trivial.

Whereas the analytic-synthetic distinction considers some statements absolutely certain and others merely probable, with a rigid barrier between these two categories, it seems more accurate to say there are degrees of belief and certainty *throughout* one's worldview. Some beliefs are held more firmly than others; some beliefs are held more passionately than others. But the firmly held beliefs are not necessarily the so-called analytic ones, in that they are not trivial, nor are they necessarily self-evident (though they will at least *seem* to be self-evident to the one who holds them at them at the center of his network). What determines the strength of a belief is far more complex than the analytic-synthetic distinction will allow. Such factors as past experience, upbringing, self-protection, cultural and social background, intelligence level, educational training, stubbornness, pride, prejudice, religious convictions, and so on, can all influence the way we hold our beliefs and the way we revise them. It may be said that our belief system is regulated and controlled by our most basic beliefs, or presuppositions, which are neither

<sup>&</sup>lt;sup>14</sup>From a Logical Point of View, second edition, (New York: Harper Torchbooks, 1961), p. 41.

trivial analytic truths nor purely observational synthetic truths. Or, to put it another way, everyone will end up treating some beliefs with the authority and certainty of "analytic" judgments, but give them the significance of "synthetic" judgments. For example, we have already seen how the logical positivists treat the verificationist principle as a presupposition. This principle is not analytic (it is not true by definition), nor is it synthetic (it is not empirically confirmed). Rather, as we saw above, it was granted presuppositional status -- it was held to be both certain and significant; guaranteed, but also meaningful. Unfortunately for the logical positivists, as we saw, it was also selfdefeating. Islamic fundamentalists, by analogy, give the same status to the Koran. The content of the Koran, as the will and revelation of Allah, forms the hub of the Islamic worldview. Its teachings are at the center of their web of beliefs. The Koran is taken to be both self-evidencing and informative. In a purely formal sense, the logical positivists and Muslims have a similar thought structure, even though it is filled with completely different beliefs. Such presuppositional faith commitments are an inescapable and ineradicable feature of the human personality. Of course, this does not drive us to a form of relativism. To construe it as such would be to ignore the fact that not all presuppositional networks are equally valid. Some worldviews, or webs, are philosophically stronger than others. Some clearly destroy the intelligibility of human predication and experience and therefore must be rejected.

Much more could be said in developing this approach to human knowledge and belief, but certainly it should be clear by now that the analytic-synthetic distinction simply does not conform to the structure of our thought. This distinction is simply not an accurate picture of our cognitive processes. Human beings think in terms of "systems," or worldviews, or conceptual webs. These networks of belief contain within them priorities of beliefs. In other words, not all beliefs are of equal importance to us. Some beliefs are granted virtual immunity from revision while others are held quite loosely. Some are at the center of the web, others on the periphery. But the strength of any given belief is not determined atomistically; it is determined in the overall context of one's beliefs. If this contention is true, many important questions come to mind: What beliefs should be held most firmly? How can we justify these beliefs? Where should we seek to ground certainty? What is the relationship of different areas in the web to each other, such as philosophy to science? If revisionary immunity is not a function of analyticity, what exactly is it that makes us hold some beliefs so resolutely? If philosophical debates are really clashes not of isolated statements or observations, but of entire worldviews, how can they be resolved? While these questions bring this philosophical discussion to an end, they really should be considered the very beginning of the task of philosophy.

<sup>&</sup>lt;sup>15</sup>This is not to say that all human beings think in consistent systems, or even that most are aware of the nature of their own thought. It is virtually certain that everyone holds to some incompatible or inconsistent beliefs. Most people do not reflect on their own thinking enough to notice these inconsistencies or to notice the "worldviewish" character of their thought. Of course, a major function of philosophy is to help people think consistently and self-consciously.