**PART I**

**The Analysis of Analysis**

**Chapter 1**

**Analytic Philosophy as Logical Analysis**

**1.0 Philosophy as the analysis of the categories in terms of which understand the world**

We understand the world in terms of certain categories (e.g., *person, statement, fact, impossibility, existence*). Philosophy studies these categories. It delineates their structures. This is its sole function. Thus, *philosophy is the discipline that delineates the structures of the categories in terms of which we think about the world.*

We’ve already identified some of these categories. By stating a few of our most basic beliefs, we can identify some more (they’re the ones denoted by the italicized expressions):

The world isn’t homogeneous. It is articulated into *events* bearing various *causal* and, more generally, *spatiotemporal* relations to one another. Many of these events involve more or less persistent *things* (rocks, trees, etc.). Some of these things have *minds.* Most animate (mind-having) beings have *sense-perceptions;* i.e., they see things, hear things, etc. Most percipient (perception-having) creatures have *beliefs.* Some of these beliefs are *true;* others are *false.* Some of the true ones are cases of *knowledge.* Some percipient creatures communicate with one another through the use of *language.* Mastery of a language makes it easier for one to communicate one’s beliefs to others, and it also enhances one’s ability to *reason.* Rational (reason-capable) creatures tend to make *value-judgments.* They judge one another’s actions, and sometimes their own, to be *good* or *bad.* Creatures that make such judgments tend to regulate their behavior towards one another by means of systems of *law,* the supposed purpose of which is to ensure that such behavior satisfy the requirements of *justice.*

**1.1 Knowledge vs. meta-knowledge**

*Event, space, time, cause, persistence, thing, mind, perception, belief, knowledge, language, truth, value-judgment, law, justice.* Whatever we know, we know it through these categories (and others like them—the list is not complete). But even though we cannot think without them, they are seldom the *objects* of thought. The result is that, although we’re adept at using them, we know little about them.

For example, we are excellent at distinguishing linguistic from non-linguistic behavior, which suggests that, at some level, we know what conditions a creature’s behavior must meet if it is to embody knowledge of a language. But when asked to make these conditions explicit, we find we can do so only with great difficulty and only with partial success. So even though we are good at knowing who knows a language and who does not, we don’t know what it is that we know by virtue of knowing this.

The same thing *mutatis mutandis[[1]](#endnote-1)* is true of each one of these categories. We’re excellent at distinguishing between moral and immoral behavior. We know that rape is immoral and that donating money to charity (for selfless reasons) is moral. But when asked to identify the principles embodied in these pedestrian and uncontroversial judgments, we have trouble producing theories that don’t distort them.

In general, it’s hard to identify the principles that guide our thoughts. Self-understanding isn’t the mind’s primary function. Nor could it be. The idea of a mind that thinks about nothing other than itself is an ***incoherent[[2]](#endnote-2)*** one. Thus, any case of self-awareness, and therefore of self-understanding, is necessarily derivative of, and for that reason of lesser quality than, some other more fundamental sort of understanding.

Being the discipline whose purpose is to delineate the structures of these categories, philosophy has the very non-trivial job of identifying, in as clear and explicit a manner as possible, the conditions that a given thing must satisfy if it is to fall into a given one of these categories. So far as philosophy succeeds in this endeavor, it makes it clear what it is that we are doing when we are doing anything cognitive, be it making an observation or engaging in an extended piece of abstract reasoning. Philosophy is the analysis of the preconditions of all knowledge. It is the analysis of analysis, the logic of logic, the science of science.

**1.2 The relationship of philosophy to other disciplines**

The philosopher is interested in the *laws governing the laws.* He doesn’t want to know what *in fact* holds. He wants to know what it would even make sense to claim to hold. He wants to know the laws that the laws can’t break.

Philosophical knowledge is metaknowledge—knowledge about knowledge. The non-philosopher wants to know specifics. What happened? When did it happen? What did it cause? How did it cause it? The philosopher is interested in these questions *only* to the extent that knowing the answers to them helps him understand the categories (*cause, place, time,* etc.) underlying such knowledge.

The stranded motorist wants his car to work. He doesn’t care what will get it to do so. The engineer *is* interested in this. But the engineer is not entirely innocent of the motorist’s epistemic parochialism. The engineer has no interest in what the laws of physics are *except* in so far as he must know them to create the right mechanisms. But the physicist wants knowledge of the mechanisms only to the extent it will give him knowledge of the laws embodied therein.[[3]](#endnote-3)

The philosopher is to the physicist what the physicist is to the engineer and, therefore, what the engineer is to the stranded motorist. The philosopher wants to know what causes what and what mechanisms were involved *only* to the extent that knowing this helps him understand *what it is* for one thing to cause another— *only,* that is to say, in so far as it helps him know what it is that one knows in knowing that one thing made another happen.

**1.3 How is analytic philosophy different from non-analytic philosophy?**

John Stuart Mill (1806–1873), the great philosopher and economist, said that he was an expert in but one science, that being the science of science. What he meant was obviously similar to what we’ve been saying. And it was similar, therefore, to what Gottlob Frege (1848–1925), the great philosopher and mathematical logician, meant when he said that logic studies not the laws of nature but the “laws of the laws of nature.” Whether Frege was right depends on what exactly one means by “logic.” But if, by “logic,” he meant “philosophy,” then Frege’s dictum was spot-on.

Frege is often described as the first analytic philosopher. Michael Dummett (1925–), an exceptionally capable contemporary philosopher of language, said that “analytic philosophy is post-Fregean philosophy.”[[4]](#endnote-4) What does Dummett mean?

With some exceptions, pre-Fregean philosophers thought they were studying the most general features of the actual world. They thought that, like the botanist, they were in the business of saying how the world is, the only difference between their work and the botanist’s being that theirs is concerned with more general features of reality than the botanist’s.

Frege showed that this is wrong. Any interest that botanists have in plants that *might* exist, but don’t, is subordinate to their interest in what plants *actually* exist. Like all scientists, they are interested in what there *could* be only to the extent that it helps them figure out what there *is.* But with philosophers, it’s the other way around. Any interest they have in the actual is subordinate to their interest in the possible.

Unlike non-analytic philosophers, *analytic* philosophers figure out what there could be by analyzing statements. Statements that make sense are those that an be true, and statements that don’t are those that can’t. Therefore, statements that make sense describe possible realities and those that don’t don’t.[[5]](#endnote-5)

But what exactly did Frege do?

**2.0 Frege’s key insight: Logical form** ≠**grammatical form**

Frege’s legacy to philosophy can be summed up thus:

(FL)[[6]](#endnote-6) When people have an obviously correct belief that seems to have an absurd consequence, they should ask themselves whether that absurdity really *is* a consequence of that belief. But they frequently don’t. Instead they accept the absurdity and, in order to make this mistake of theirs work, they develop *ad hoc* hypotheses as to the nature of reality that undermine the integrity of their own belief system.

Consider the statement:

(SC) nothing is a square circle.

SC is true. Everybody knows this. But what does SC say? Judging by its grammatical similarity to “Smith is a very capable lawyer,” which attributes a certain property (that of being a capable lawyer) to a certain individual (Smith), SC would seem to say that a certain entity has the property of being a square circle. Presumably, the entity in question is some non-entity. If this presumption is correct, SC says that:

(SC\*) some non-entity, some featureless un-thing, is a circle.

But SC\* is doubly incoherent. If *anything* is a square circle, then SC is false—it being irrelevant how much of a cipher the entity in question is. Second, the very idea of a non-entity is an absurd one. But it’s hard to find a layperson or scholar who, when asked what SC means, comes up with anything substantively different from SC\*.

Given what a rank absurdity SC\* is, we can’t accept it, even though it seems to be an obvious consequence of SC. But we can’t reject SC, since it’s an obvious truth.

To get out of this jam, we need only reflect a bit on what our words mean. If you say that nobody likes Larry, you’re not saying that some un-person likes Larry. You’re saying that if you gathered together all the people who liked Larry and put them in an otherwise empty room, that room would remain empty. Which is the same as saying that, if you put all the people in existence in an otherwise empty room, there would be no things that liked Larry in that room.

Thus, what “nobody likes Larry” means is not that some un-person likes Larry, and is instead that the set of people who like Larry is empty or, alternatively, that the set of people doesn’t overlap with the set of things that like Larry.

SC is to be understood along similar lines. If you put all the square circles in existence in an otherwise empty room, that room would remain empty. This is another way of saying that, if you put all the square things in an otherwise empty room, there would be no circles in that room. So SC says, not some un-thing is a circle, but that

(i) the set of things that are both circular and square is an empty one

or, alternatively, that

(ii) the set of circles doesn’t overlap with the set of squares.

(i) is a way of saying that any given thing lacks the property of being both a circle and a square. Alternatively, it’s a way of saying this property doesn’t have any instances—that it’s *uninstantiated.* (ii) is a way of saying that anything having the property of being a square lacks the property of being a circle. Alternatively, it’s a way of saying that these two properties don’t have any instances in common—that they are not *coinstantiated.*

(i) and (ii) thus attribute properties to properties. They say, respectively, that the property of being both a square and a circle is uninstantiated and that the properties of being a square and of being a circle are not coinstantiated.

Since (i) and (ii) are just different ways of saying what SC says, the latter doesn’t make the absurd statement that some non-entity is a circle, and it instead makes the innocuous statement that the set of squares doesn’t overlap with the set of circles or, alternatively, that the property of being a square circle is uninstantiated.

What this shows is that, in at least some cases, philosophical insight is acquired, not by doing parascience, but by analyzing meanings—not by positing entities, but by clarifying statements.[[7]](#endnote-7)

Analytic philosophy is philosophy that is driven by accep-tance of FL. Let us now expand on FL and make it clear why it’s true.

**2.1 The wrong way to react to grammatical surface-structure**

In respect of its grammatical form,

(JS) “John smokes”

is comparable to

(MS) “Mary smokes.”

JS attributes the property of being a smoker to John; MS attributes that property to Mary.

In respect of its grammatical form, each of JS and MS is comparable to:

(LJ) “Larry juggles”

and also to

(JJ) “Jane jogs.”

Each of these sentences says of some individual that he or she has a certain property. The obvious inference to make is that *any* sentence grammatically comparable to any one of those of four sentences says of some individual that he or she (or it) has some property.

In light of these points, consider the sentence:

(SS) Someone smokes.

Given what we just said, the obvious thing to say about it is that it attributes the property of smoking to some individual. But which individual could that be? Which individual does “someone” pick out?

“It picks out an ambiguous person,” said one logician.[[8]](#endnote-8) But this answer is no good. Words are ambiguous, not people. “Bank” is ambiguous, since it has two meanings. But I’m not ambiguous, and neither are you. And if *per impossibile* there *did* exist some ambiguous person—some blank, featureless shell of a person who was picked out by “someone”—SS would unambiguously say of *that* person that he or she smoked. But there clearly

isn’t any *one* person to whom SS attributes the property of smoking. This is easily shown.[[9]](#endnote-9) If Smith smokes, the sentence: “someone smokes but Smith does not”

will be *false.* But it won’t be ***self-contradictory;*** it won’t be like “Smith smokes but Smith does not smoke.” (For a statement to be self-contradictory is for it to bear two mutually opposed meanings.) Of course, there isn’t anything special about the name “Smith,” what we just said could have been said in connection with Jones or Brown or any other expression that refers to some individual. Thus, there is no individual N such that it is self-contradictory to say that someone smokes but N does not. Therefore “someone” doesn’t refer to anyone.

“But you’ve misunderstood my thesis” it will be said. “The word “someone” doesn’t unambiguously pick out an ambiguous person. It is *itself* ambiguous. It refers to Fred and Ethel and Mary. It refers to all people indifferently.”

That’s false. “Someone” isn’t ambiguous; it isn’t like the word “dumb.” SS has one meaning, unlike “John is dumb,” which could mean either “John is unintelligent” or “John is mute.” Also, if “someone” were *ambiguous* between “John” and “Ethel” and so on, then, depending on the circumstances, it would be synonymous with “John smokes” or “Ethel smokes.” And in that case, “someone smokes, but John does not” would sometimes have the same meaning as “John smokes but John does not smoke,” in which case it would be self-contradictory. But, as we just saw, “someone smokes, but John does not” is not self-contradictory under any circumstances. If John *does* smoke, it will be *false,* but it won’t be self-contradictory.

Also, it isn’t clear what it means to say that “someone” picks out everyone “indifferently.” But if, as is surely the case, picking out everyone indifferently involves picking out everyone, then it’s just wrong to say that “someone” picks out everyone “indifferently” (or in any other way). For if it did, it would have the same meaning as “everyone,” which it doesn’t.

**2.2 The right way to react to grammatical surface-structure**

What all this shows is that “someone” isn’t in the same category as “John” and “Ethel.” It doesn’t function in the same way, even though, given its *grammatical* function, one would expect it to. SS is obviously true. The wrong way to react to that fact is to twist reality to make it conform to our assumption that “someone,” being grammatically comparable to “John,” must refer to something. If we take that path, we must say that it refers to an “ambiguous” or “non-specific” person, or some such, given that it obviously doesn’t refer to anyone specific. But then we’re then stuck with the absurd thesis that there is some non-specific entity in the world— that there exists something that isn’t identical with any particular thing and therefore isn’t identical with anything.

The right way to react to it is to think more deeply about what SS is really saying. Frege did this, and he solved the puzzle. SS’s ***logical form*** diverges from its *grammatical* form. In terms of what its grammar suggests that it is saying, SS is indistinguishable from sentences that attribute the property of smoking to specific objects. In terms of what it really is saying, it is evidently very different from such sentences.

What SS is saying, as Frege made clear, is that the characteristic—or as analytic philosophers put it, the ***property***—of being a smoker is instantiated. SS is making a statement, not about some non-specific individual, but about a very specific property, and it’s saying of this property that it’s ***instantiated.*** (For a property to be instantiated is for there to be an ***instance*** of it. An instance of a property is something that has it. You are an instance of, and therefore instantiate, the property of being human since, being human, you have that property. )

There are properties that nothing has. Nobody has run a three-minute mile. Given any individual, x, it is false to attribute the property of being a person who has run a three-minute mile. Thus, there are no instances of that property. It is uninstantiated. The grammatical form of (“TM” can be thought of as short for “three minutes”):

(TM) “nobody has run a three-minute mile”

is just like that of

(JTM) “John has run a three-minute mile.”

JTM clearly attributes that property to an individual. That isn’t what TM does. TM says of that property that it *can’t* be attributed to anyone. So TM says that (“UP” is short for “uninstantiated property”):

(UP) the property of being a person who has run a three-minute mile is uninstantiated.

Notice that UP’s grammatical form is the opposite of TM’s. The grammatical subject of TM is “nobody”; the grammatical predicate is “has run a three-minute mile.” By contrast, the grammatical subject of UP is “the property of being a person who has run a three-minute mile,” which corresponds to “has run a three-minute mile,” and the grammatical predicate of UP is uninstantiated, which corresponds to “nobody.”

If one were to take TM at face value, and were thus to assume that its meaning paralleled that of JTM, one would have to say that it attributed the property of being a person who has run a three-minute mile to some un-person, or some such. But if this is what it said, then in order to be true, somebody—namely, this unperson— *would* have had to run a three-minute mile, in which case TM would be false. When we align TM’s real meaning with its grammar, we don’t have to swallow this rank absurdity. For UP says of some very much existent property (that of being a person who has run a three-minute mile) that *it* has a certain very much existent property (that of being uninstantiated). So we get the right result if we do linguistic analysis. We get the wrong result if we do para-science—if, that is, we posit new *entities* in order to account for the datum that TM is true.

The same thing is true of:

(NS) “nothing smokes.”

Pre-Fregeans said that NS says of some non-thing—some blank entity—that it smokes. So, supposing that in 500 years nobody smokes, and that NS is therefore true, it will be in virtue of the fact that some blank entity is around that is smoking.

But if there is such a thing, and it’s smoking, then NS is *false.* As long as one thing smokes, NS is false. It doesn’t matter how blank or otherwise deficient that thing is.

Frege straightened this all out. By obvious extensions of what we just said, NS’s real meaning is:

(NS2) *the property of being a smoker* **is instantiated.**

NS2‘s grammatical subject (the italicized expression) corresponds to NS’s grammatical predicate; and NS2’s grammatical predicate (the bold-faced expression) corresponds to NS’s grammatical subject. So when we align NS’s logical form (what it actually says) with its grammatical form (what, given its grammar, it appears to say), we no longer have to say, completely absurdly, that NS attributes to some non-specific individual.

Similar remarks hold with respect to SC. That statement says of two properties that they aren’t coinstantiated. It doesn’t say of some non-entity that it is both a square and a circle.

Philosophical puzzles are solved by making it clear what statements mean. This is the basic tenet of analytic philosophy. Philosophy explains by clarifying statements. Science explains by positing entities. Science posits entities that are not themselves directly encountered but that, if assumed to exist, would account for phenomena that *are* directly encountered.

It used to be thought that philosophical explanation was to be understood in the same way—that philosophical progress was to be made by positing entities that are not themselves directly known but that, if assumed to exist, explain what *is* directly known. This is not the case. Philosophy isn’t para-science. Philosophy is conceptual analysis. To make a philosophical discovery is not to discover a new entity; it is to make explicit a previously unrecognized implication of an existing belief. Philosophy is explication; it is the clarification of the statements that we accept but whose depths we haven’t yet fully fathomed.[[10]](#endnote-10)

**3.0 Analysis vs. ontogenesis**

In the works of analytic philosophers, one sometimes comes across the word “ontology,” which, etymologically, means “the study of being” (“ontos”= “being,” “logos”= “study”). These days the word “ontology” is usually used to refer to a given philosopher’s beliefs as to what exists. Some philosophers don’t believe in nonspatiotemporal entities. So such entities don’t belong to their “ontology.” Since I do believe in them, they do belong to my “ontology.”

Analytic philosophers are, almost by definition, ontologically very conservative. In other words, they don’t want to grant existence to anything whose existence hasn’t been demonstrated beyond a shadow of a doubt.

Pre-analytic, pre-Fregean philosophers were ontologically very liberal. Consider the statement:

(TP[[11]](#endnote-11)) no person is over 20-feet tall.

Pre-Fregean philosophers took TP to say that there existed some non-person who was over 20-feet tall, and they engaged in a great deal of spurious “ontologizing” to validate this analysis. Frege showed that this ontologizing, in addition to being futile, is unnecessary. TP says that a certain property (that of being a person who is over 20-feet tall) has another property (that of not being instantiated). No 20-foot tall (un)person need be postulated. No ontologizing need be done. By contrast, non-analytic (pre-Fregean) philosophers often countenanced bizarre and even logically impossible entities to cover up deficits in their analyses.

**3.1 When is it appropriate to ontologize?**

As a general rule, analytic philosophers do not try to solve philosophical problems by “ontologizing”—that is, by positing an entity, or class of entities, not previously believed to exist. They try to solve them by clarifying statements. In *some* cases, the results of a successfully clarified statement *do* demand that we grant existence to something to which we’d otherwise deny existence. But, whenever this happens, the “entity” being posted is *never* a denizen of the spatiotemporal world; the thing that’s posited is never a person or a table or a mountain or a monster. It’s always an abstract object of some kind, and it’s posited *only* because, were it not to exist, it would be impossible to account for the truth of obviously true statements.

For example, given the premise that Bob and Sally are both humans who are intelligent, it follows that there exist characteristics—or, to use the word preferred by analytic philosophers, ***properties*[[12]](#endnote-12)**—that Bob and Sally have in common, and from this it follows that properties exist.

Given that properties exist, are they identical with spatiotemporal entities (i.e., with things that have locations in space and time)? Obviously, *instances* of properties at least sometimes exist in space-time. Bob and Sally, both instances of many properties, exist in space and time. But although you may encounter many instances of intelligence, you’ll never encounter intelligence *per se* and it would make no sense to assign any spatiotemporal location to it. Attempts to rebut this argument are doomed to fail, as we’ll see in Chapter 2. Thus, to validate the rather rudimentary inference from “Bob and Sally are both intelligent and kind,” it is necessary to grant the existence of non-spatiotemporal entities and thus to do a bit of ontologizing.

So even though analytic philosophers do ontologize, they do it *only* when there is no other way of demonstrating the legitimacy of some indisputably correct form of inference, and they never posit anything nonspatiotemporal in the process.

**3.2 Brentano and Meinong: the non-analytic method epitomized**

According to Franz Brentano (1838–1917), the essence of the mental is *intentionality.* In this context, the word “intentionality” refers, not to the property of being done deliberately, but to the property of being *representational.* So, in Brentano’s view, for something to be a mental entity is for it to be representational, and for something to fail to be a mental entity is for it to be non-representational.

To be sure, there are non-mental things (e.g., deposits of ink or pain) that are representational. Utterances and ink deposits are representational, even though they aren’t mental. But this isn’t a threat to Brentano’s position. Utterances (etc.) are representational only in a derivative sense. It’s because *we* endow it with meaning that an utterance of “snow is white” is meaningful; in a world devoid of sentient beings, it would just be another noise. So Brentano’s thesis is that for something to be mental is for it to be non-derivatively representational.

There is an apparent problem with Brentano’s thesis. To be representational is presumably to represent something. Hallucinations are mental entities. But what does a hallucination of a pink elephant represent? A pink elephant? No—pink elephants don’t exist. More formally, there is nothing x such that x is a pink elephant. *A fortiori* there is nothing x such that x is a pink elephant that is represented by some hallucination. Still, there is clearly *a* sense in which hallucinations of pink elephants and other non-entities are representational. How is this to be explained?

The solution to this problem lies in the fact that *perception is description.* If you’re looking at an actual elephant, which we’ll call “Larry,” the information encoded in your visual ***perception*** isn’t the effect that:

(LP[[13]](#endnote-13)) *Larry* is standing over there, next to that tree, looking ill [etc.].

When you look at an elephant, or a person, or a rock, you don’t *just* see that object. Seeing Larry involves seeing *a* thing having various properties—having a certain color, shape, size, position (relative to you), etc. So seeing Larry involves seeing that various properties are instantiated—that there is an instance, in a certain place, of a certain morphology, color, etc.

Perceptions of things aren’t like sentences about them. In the *sentence:*

(LS[[14]](#endnote-14)) “*Larry* is standing over there, next to that tree, looking ill [etc.]”

Larry is represented by a single, ***semantically simple*** symbol (namely, “Larry”).[[15]](#endnote-15) But in no *sense*-perception of Larry is he represented by some simple, homogenous, non-composite cipher. So far as he is perceived, Larry is represented *as* having these or those properties. This means that seeing him involves seeing that these or those properties are instantiated.

It’s not as though *in addition* to seeing an instance of a certain morphology, color, etc., you *also,* separately from that, see Larry.[[16]](#endnote-16) No, your seeing Larry *consists* in your seeing those property-instances—in your seeing that such and such properties are instantiated. Thus, the content of your perception of Larry is given by some ***existence-claim*** similar to the following:

(LC) there exists, over in that place at the present time, instances of such and such properties.

An existence-claim is any claim to the effect that some property is instantiated. Thus, “there are prime numbers” is an existence-claim, and sufficient since it says that the property of being a prime number has at least one instance.

Given any existence claim, anything having the requisite properties is said to *satisfy* it. So the number seven satisfies the just-mentioned existence-claim. The number two *uniquely* satisfies “there is an even prime,” since (a) it satisfies it and (b) nothing else does.

When you look at Larry, your eyes are giving you an existence-claim. Given that Larry, and Larry alone, satisfies that existence-claim, he is the *object* of your perception. So given that Larry uniquely instantiates the property of being a thing in such and such a place that has such and such a morphology (etc.), Larry is the object (or, more likely, one of the objects) of your current perception. So, yes, your perception does represent Larry. But it represents him by way of ***encoding*** an existence-claim that he satisfies.

Given this, suppose that, the next day, you have a hallucination that is experientially just like the ***veridical*** perception we’ve been talking about. (A “veridical” perception is an accurate one. “Veridical” is to perceptions what “true” is to sentences. For some reason, perceptions are described as “veridical,” not as “true.”) So even though neither Larry nor anything that looks like him is in front of you, your visual experience is telling you otherwise. That hallucination thus gives you a *false* message. The message encoded in it will be similar

to LC. That message is to the effect that, in a certain place, there is a thing having such and such morphological, chromatic, kinematic (etc.) properties. On this occasion, the message—the existence-claim—in question is false, the reason being that nothing satisfies it. (Yesterday, the message represented by your visual experience was correct, the reason being that the existence-claim in question *was* satisfied.) The important point is that, although it was hallucinatory, your visual experience encoded an existence-claim and, in so doing, gave you a message and was therefore representational. It wasn’t representational in the sense that there was some thing that it picked out and, for that reason, represented. It was representational in the sense that it gave you a message, albeit a false one, and thus represented the world as being a certain way.

Your visual perception of yesterday, unlike your visual perception of today, encoded a *true* existence-claim. But your visual experience of today no more represents some non-existent entity than your sense-perception yesterday. Your visual experience today has for its content a *false* proposition to the effect that *there is* a thing having thus and such properties. But just as the sentence “there does not exist a ten-foot tall man” does not, in order to be true, require the existence of a ten-foot tall man, so your perception doesn’t require the existence of an elephant before you.

The same thing is true of thoughts about the non-existent. When you think about some non-existent number—for example, an even prime greater than two—there isn’t some mathematically impossible entity that you’re cognitively locking onto. What’s going on is that you’re thinking some false existence-claim along the lines of: there is some number n such that n is both even and prime [etc.].

Mental entities have **propositions** for their contents. When correct, those propositions *describe* existing things. When false, they don’t. But nothing non-existent or quasi-existent can be the object of a thought or perception. When we *describe* a thought or perception as having a “non-existent object,” what we mean, so far as what we mean is coherent, is that it has for its content an existence-claim that nothing satisfies.

But Brentano dropped the ball. He realized that hallucinations are, in some significant sense, representational. Wishing to reconcile this with the fact that there are no pink elephants (etc.), he said that a hallucination of a pink elephant has a non-existent pink elephant for its object.[[17]](#endnote-17)

But that’s absurd, since it’s the same as saying: “there exists some elephant x such that x doesn’t exist and such that what you are hallucinating is x.”

In a failed to attempt to deal with this, Brentano distinguished different kinds of non-existence, and he used different terms to mark them (“inexistent,” “non-existent,” “un-existent,” etc.) His pupil, Alexius Meinong (1853–1920), added another bogus category to this list—the category of “subsistent” entities. An entity “subsists” if it doesn’t quite fail to exist, but doesn’t quite succeed in existing either.

This entire approach is misguided. Brentano and Meinong were ontologizing when they should have been analyzing. Properly analyzed, hallucinations no more require the existence of non-existent existents than veridical perceptions. The same is true of thoughts about Bart Simpson, the Fountain of Youth, etc. (This is further discussed in Chapters 6, 8, 9, and 25.)[[18]](#endnote-18)

**4.0 Empirical puzzles vs. philosophical puzzles**

Some puzzles result from ignorance of spatiotemporal facts. My valuables start disappearing. I’m puzzled. I learn the relevant facts: Larry has been sneaking into my house and stealing my valuables. I’m no longer puzzled.

The puzzles that science deals with typically involve a failure to know all the facts. The problem isn’t that anyone is making erroneous inferences. The problem is that not all the facts are in. It isn’t yet known that disease X results from an over-production of antibody Y. The reason it isn’t yet known is that, given the available data, there isn’t yet good reason to believe it. But once the data is in, it will be believed, and a cure will be forthcoming.

Of course, scientific puzzles seldom result *entirely* from a failure to have the relevant data. In most cases, scientific breakthroughs involve somebody’s figuring out a new and better way to model already available data.

The pre-history of relativity theory vividly illustrates this principle. If a train rushes past you at a rate of 100 mph, and I rush past you at a rate of 70 mph, the train is traveling at a rate of 30 mph with respect to

me. But if a light beam rushes past you at a rate of 186,000 miles/second, and I rush past you at a rate of 180,000 miles/second, the light beam rushes past *me* at a rate of 186,000 miles/second. There is thus is no optical test for determining one’s own state of motion.[[19]](#endnote-19) In other words, no matter how quickly you travel, you will not be able to detect any change in your velocity *relative* to that of a light beam. People and instruments not traveling with you will be able to detect changes in *your* velocity relative to that of a light beam, and you will be able to detect changes in *their* velocities relative to that of a light beam. But nobody can detect any changes in his own velocity relative to that of a light beam.

This deeply puzzling fact was established in 1879. But nobody had any idea how to explain it until, in 1905, Einstein put forth the Special Theory of Relativity. Einstein didn’t cite any data that hadn’t been available to the physics community for decades. Einstein’s great innovation was of a conceptual nature. The facts were in, but he was the first to make sense of them.

Be all of this as it may, Relativity Theory is an ***empirical*** theory. It’s based on observational and experimental data, much of which would be impossible to acquire except through carefully executed experiments. This data wasn’t in until 1879. So even though nobody came up with Relativity Theory before 1879, that fact can’t be chalked up to the fact that nobody drew the right inferences. It is due, at least in part, to the fact that the necessary data simply wasn’t available. (What *can* be chalked up to a failure to draw the right inferences is the fact that, during the period from 1879 to 1905, nobody came up with Relativity Theory.)

In general, scientific breakthroughs have two components: (i) a strictly fact-based component (new raw data is acquired), and (ii) a purely conceptual component (already known data is modeled in a new and better way).

**4.1 Empirical puzzles vs. philosophical puzzles (continued)**

Unlike scientific puzzles, philosophical puzzles are not solved by generating new raw data. Philosophical puzzles are *purely* conceptual in nature and have no strictly factual component.[[20]](#endnote-20) Philosophical puzzles result, not from a failure to know the facts, but from a failure to draw the right inferences. They result, not from ignorance, but from confusion. In figuring out that:

(NS2) *the property of being a smoker* **is instantiated**

is what is meant by

(NS) “nothing smokes,”

Frege solved a number of outstanding philosophical problems. But Frege didn’t make any new empirical discoveries. In fact, his work didn’t involve him having access to *any* empirical information that wasn’t available to *anyone* who knows what (NS) (or its German equivalent) means.[[21]](#endnote-21) Einstein’s work, by contrast, had a heavy empirical component: he was modeling facts that a layperson would know nothing about, and the same thing *mutatis mutandis* is true of any scientific discovery.

**4.2. Philosophical analysis** ≠**linguistic analysis**

Impressed by Frege’s philosophical successes, many came to the conclusion that *all* philosophical puzzles are of a purely linguistic nature. The most famous, and also the most vehement, advocate of this view was ***Ludwig Wittgenstein (1889–1951).*** This thesis was the cornerstone of this work. He urged acceptance of it in practically everything he wrote during his long career. He said it before others said it, and he held onto it long after, for reasons to be described forthwith, most of its erstwhile supporters rejected it. “Philosophical confusion begins when language goes on holiday,” he said. Elsewhere[[22]](#endnote-22) he said that all philosophical confusion “lies in a failure to understand the workings of our own language.”[[23]](#endnote-23)

But this position is incorrect. There are many philosophical puzzles that don’t have anything to do with language, and the solutions to these puzzles cannot be modeled on Frege’s solutions to the puzzles discussed a moment ago.

Here’s an example from ***epistemology.*[[24]](#endnote-24)** You couldn’t see the book in front of you were it not for the disturbances of your eyes brought about by the light-rays bouncing off of it. In general, nothing can sense-perceive anything that doesn’t affect it. All knowledge of what is in space-time is rooted in sense-perception. (If it’s in space-time, it isn’t known unless it’s directly perceived or evidence of it is perceived.) Taking it for granted that nothing that isn’t space-time can possibly be known, many contemporary epistemologists, e.g. Jerry Fodor[[25]](#endnote-25), hold that one can’t know of *anything* without being affected by it. Thus, such philosophers hold that:

(JK) John’s being aware of the fact that 1 + 1 = 2 involves his being on the receiving end of some causal process initiated by that fact.

I personally regard JK as being absurd in the extreme.[[26]](#endnote-26) The fact that 1 + 1 = 2 isn’t comparable to the fact that there is a book in front of you. Were mass-energy distributed differently, there *wouldn’t* be a book in front of you. But 1+1 would equal 2 no matter how mass-energy were distributed. Thus, “1 + 1 = 2” says nothing about how mass-energy is distributed, and it therefore says nothing about the spatiotemporal world. The fact it describes must therefore be non-spatiotemporal. Nothing outside of space-time can bear any causal relation to anything. Therefore, JK is wrong.[[27]](#endnote-27)

In any case, the dispute between those who accept JK and those who reject it has nothing to do with language. It’s agreed what JK means. What isn’t agreed is whether the thing that it’s agreed to mean is true.

But the controversies surrounding NS *do* concern language; they concern the semantics of the word “nothing.” Those who see “nothing” as being a referring term, like “Socrates,” see NS as saying that some featureless entity smokes. Those who deny that “nothing” and “Socrates” belong to the same semantic category don’t see NS as saying this. Therein lies the controversy. Nothing comparable to this holds in connection with JK.

Analytic philosophers *do* agree that the right way to figure out whether or not JK is correct is by carefully analyzing its meaning.[[28]](#endnote-28) But they also hold (rightly) that it isn’t to be solved through *linguistic* analysis.

It must be emphasized that, according to analytic epistemologists, this puzzle is of a logical, not an empirical, nature. It is to be resolved through statement-analysis *alone,* not through statement-analysis combined with empirical research. They’re clearly right about this. JK says that John’s knowing that 1+1=2 is ***inconsistent*** *with* his not being on the receiving end of a causal process initiated by that fact. For P to be inconsistent with Q is for it to be impossible for both P and Q to be true. What is impossible or the otherwise non-existent cannot be observed. Thus, observation cannot tell you that anything is inconsistent with anything. So there is no way for it to tell you whether JK is correct.[[29]](#endnote-29)

The philosophy of law provides us with another example of a puzzle that is to be solved through statement-analysis but *not* through linguistic analysis. It’s agreed that legal systems *can* be morally good. But it’s fiercely debated whether they *have* to be. According to some, a legal system can fail to embody any morality at all. Law is about power, not morality. Advocates of this view are known as ***legal positivists*** (no relation to *logical* positivism). According to anti-positivists, anything that doesn’t meet certain minimal standards of morality ipso facto isn’t a legal system. To be sure, legal systems, like all institutions, presuppose the existence of relatively rigid distributions of power. But if an institution qualifies as a bona fide legal system, it is at least partly by virtue of its embodying a certain morality.

Positivists and anti-positivists disagree as to whether:

(LM) “nothing can be a legal system without embodying a certain morality”

is a true sentence. But this debate has nothing to do with semantics. Positivists and anti-positivists are in agreement as to what LM means. What they disagree about is whether the meaning that they agree that it has is a correct one. What analytic philosophers of law, such as positivist H.L.A. Hart (1907–1992) and anti-positivist Ronald Dworkin (1931–) , *do* agree about is that LM is to be resolved on the basis of logical analysis.

Echoing what we said a moment ago, analytic philosophers deny that LM makes an ***empirical*** statement. They’re right. LM says that x’s being a legal system is inconsistent with x’s failing to embody a certain morality. We’ve already seen why the merits of such a claim cannot possibly be determined on the basis of observation.

*No* philosophical assertions are empirical. Philosophy analyzes the categories in terms of which we think about the world. It does this by saying exactly what it is that is ruled out by a given thing’s falling into a given category—by, for example, a given thing’s being an instance of knowledge. Since observation can’t tell one whether one statement is inconsistent with another, philosophical assertions are non-empirical.

**4.2.1 Not all philosophical analysis linguistic analysis (continued)**

Thus, not all philosophical puzzles are linguistic puzzles; and Wittgenstein was wrong to say otherwise. But didn’t we ourselves say that philosophical analysis is the analysis of statements? Yes we did, and we were right to do so. To see why, Wittgenstein is nonetheless wrong, we must distinguish sentences from ***propositions.*** Propositions are the things meant by sentences. “Snow is white,” “schnee is weiss,” and “la neige est blanche” all mean the same thing. There is some one proposition that is the meaning of each of them.[[30]](#endnote-30)

A sentence is true or false depending on whether it has a true or false proposition for its meaning. Thus, when a sentence is described as “true,” the property being attributed to it isn’t the same as the property that is attributed to a proposition that is so described. For a sentence to be “true” is for it to encode a true proposition. But this isn’t what it is for a proposition to be true, since propositions don’t encode anything. In Chapter 3, we’ll say what exactly it is for a proposition to be true. But the obvious answer, though imprecise, is the right one; namely, for a proposition to be true is for it to fit the facts.

The term “statement” is ambiguous; it has three distinct meanings. Sometimes it refers to propositions, sometimes it refers to the sentences used to affirm them, and sometimes it refers to the *act* of using a sentence to affirm a proposition. Wittgenstein didn’t countenance the existence of propositions, and this obviously had a hand in his erroneously believing that philosophy is the analysis of *sentences,* when the truth is that philosophy is the analysis of *propositions.* Even Frege’s analyses of sentences such as “someone snores” and “nothing is a square circle” fail to conform to Wittgenstein’s conception of what philosophy is supposed to do, since, as we’ll see in a moment, they’re analyses of propositions that *involve* analyses of sentences and, therefore, are not themselves analyses of sentences.

One must know at least some English to understand the *sentence:*

(1) “John knows that 1 + 1 = 2”

But the proposition meant by that sentence can be grasped without speaking English; and one needn’t know English, or any other given language, to be able to analyze that proposition correctly.

But analyzing (1)—the sentence, not the corresponding proposition—*does* involve such knowledge. A sentence is an expression; it consist of nouns, verbs, etc. Analyzing (1) involves knowing the various grammatical nuances involved in its structure. Analyzing the corresponding proposition has nothing to do with anything relating to grammar or any other aspect of language. No such knowledge is needed to analyze the corresponding proposition.

Even though Frege’s work inspired many to identify philosophy with sentence-analysis, Frege himself always made it very clear that propositions are not sentences and that, although sentences are human creations, their meanings are not.[[31]](#endnote-31)

The sentence “the moon is less massive than Earth” is a human artifact; it didn’t exist until a few centuries ago. But the truth it expresses is in a different category. That truth exists independently of us. After all, the moon was less massive than the Earth before we came along, and it’ll be that way after we sign out. For the same reason *mutatis mutandis,* the falsehood expressed by “the Earth is more massive than the moon” exists independently of our thoughts and deeds, even though that sentence itself is a human artifact.

**4.2.2 Not all philosophical analysis linguistic analysis (continued): the nature of sentence-meanings (as opposed to sentences)**

What are propositions? They’re properties. For a proposition to be true is for the world to be a certain way. The proposition that Smith is in Richmond is true if the world is a certain way and it’s false if it isn’t. (If mass-energy is distributed one way, Smith is in Richmond; if it’s distributed some other way, he isn’t.) For a thing to be a certain way is for it to have a certain property. To be round is to be one way; to be square is to be some other way. To be round is to have one property; to be square is to have some other property.[[32]](#endnote-32) Thus, the world’s being a certain way is identical with its having a certain property. Since, therefore, the world’s being a certain way is identical with some proposition’s being true, propositions must be identified with properties and a proposition’s being true must be identified with its being instantiated. Propositions are properties and truth is instantiatedness.[[33]](#endnote-33)

It’s widely thought that propositions are human creations. This is false. The world was a certain way before we were around; it will be a certain way after we’re gone; and the way it is while we’re around is up to us only to a limited extent.[[34]](#endnote-34) It follows that, independently of our having any beliefs or, indeed, our doing or thinking anything, certain propositions are true; and it follows from this that propositions are not human creations. Sentences, on the other hand, are human creations. They wouldn’t be around if it weren’t for us. So sentential analysis is a very different thing from propositional analysis.

**4.2.3 Not all philosophical analysis linguistic analysis (continued): Frege’s accomplishments reassessed**

But didn’t we say that Frege’s great accomplishment lay in his insights concerning *sentences*—in his seeing that a *sentence’s* surface structure sometimes pulled part from its deep structure? And didn’t we say that, for this very reason, Frege was the first *analytic* philosopher—that, as Michael Dummett put it, analytic philosophy is post- Fregean philosophy, the reason being that analytic philosophy is *statement*-analysis? Yes, we did say all this. And yet we just spent a lot of time saying how analytic philosophy is “statement-analysis” *only* in the sense of being statement-*meaning*-analysis; that is, proposition-analysis, as opposed to *sentence*-analysis. How are we to reconcile those various statements with one another?

The term “analytic philosophy” can be construed narrowly or broadly. Construed narrowly, analytic philosophy is post-Fregean philosophy in the sense that it directly flows out of Frege’s work. Frege was interested in ***reference, quantification,*** the nature of ***logical truth,*** the extent to which it’s possible to ***formalize*** intuitively valid inferences, etc. (These terms will be defined soon enough, if they haven’t been already.) The term “analytic philosophy” sometimes refers to what is done by those people who write *about those very questions* and who, in so doing, *are taking what Frege had to say about them into account.* In other words, “analytic philosophy” sometimes refers to the ***philosophy of language,*** along with a related branch of philosophy, known as ***philosophical logic.*[[35]](#endnote-35)**

But Frege’s work had a profound influence on philosophers who were working in areas that have no direct connection to language or logic. Frege showed that, by thinking clearly, systematically, and self-critically, one could make real headway on philosophical problems in which others had yet to make so much as a dent, despite hundreds of years of trying. “The devil is in the details,” as they say. Pre-Fregean philosophers tended to disregard the details. Frege did not. He was a stickler for them. And it was partly, though obviously not entirely, for this reason that he was able to solve problems that his predecessors could not. The word “analytic philosopher” sometimes refers to the sort of philosophy done by people who aspire to approach philosophical problems in the same careful and clear-headed way as Frege.

Thus, there are analytic philosophers of law, analytic ethicists, analytic philosophers of religion, etc. What makes them analytic philosophers isn’t that they’re talking about language or logic or any of the things that Frege talked about. It’s that they believe the problems they’re concerned with to be solved in the same coolheaded, logical way that Frege solved problems relating to language and logic.[[36]](#endnote-36)

But even when taken in the narrow sense, “analytic philosophy” (i.e., philosophical logic/the philosophy of language) is only misleadingly described as the analysis of sentences. Philosophers of language are interested in the sentence:

(NS) “nothing is a square circle”

*only* to the extent that, by understanding it, they will deepen their insight into concepts of a general kind (e.g., ***meaning, analytic truth, modality***). Linguists, on the other hand, are interested in those concepts only to the extent that an understanding of them will help them understand specific sentences, such as NS. Frege did indeed painstakingly analyze specific sentences. But he did so only because he knew that, by so doing, he could identify general logical principles. Thus, for Frege, his insight that logical and grammatical form pull apart was ultimately just a means to an end, the end being the identification of the actual nature of the bearing- relations that propositions have with respect to one another. So, yes, analytic philosophy is statement-analysis; and, yes, it was Frege’s brilliant analyses of *sentences* that availed philosophers of the principles needed to analyze statements properly. But analytic philosophy, even the narrow sense of the term, is not itself sentential analysis.

**4.2.4 Not all philosophical analysis linguistic analysis (continued): Wittgenstein—an introduction**

Wittgenstein’s two best-known works are the *Tractatus Logico-philosophicus* (TLP), which he completed in 1921, and the *Philosophical Investigations,* which he completed in 1949. In many ways, these works are antithetical to each other. But in both of them, Wittgenstein insists that that philosophical problems arise when, and only when, sentences are misused and are solved when, and only when, it is made clear how they are being misused.

In the TLP, Wittgenstein contends that all philosophical problems result from a failure to understand the syntactic rules of the languages we use. Sentences that would, if meaningful, express philosophical propositions are in all cases ungrammatical nonsense and thus fail to say anything. All such sentences violate the ***syntactic rules*** of the languages to which they belong. (For the time being, “syntactic” may be taken to be synonymous with “grammatical.” See Chapter 4, Section 3.3 for a definition of “syntax.”) Because they violate these rules in subtle, easily overlooked ways, they aren’t always seen for the abject nonsense that they are. But we mustn’t let the appearances deceive us. All such sentences are syntactically ill-formed and therefore devoid of meaning, and there would be no philosophical problems if people fully understood the syntactic rules of the languages they spoke. So far as philosophy has any legitimate function, it is to identify these rules, thereby heading off the syntactic blunders that lead to philosophical puzzlement.

In the *Philosophical Investigations,* Wittgenstein says, just as he does in the TLP, that philosophical problems arise when language is misused. But in the *Investigations,* he denies that such misuses involve violations of hidden syntactic rules, and instead says that such misuses consist exclusively in one’s using words in ways in which they are not *ordinarily* used. Thus, Wittgenstein’s position in the *Investigations* is that all philosophical problems can be quickly and definitively solved by looking at how words are *actually* used and, on the basis of the knowledge thereby obtained, ceasing to use words in deviant ways. What we think of as philosophical puzzles concerning knowledge, logic, and morality are puzzles about the words “knowledge,” “logic”, and “morality.” Those puzzles are created by our using those words in non-standard ways, and they’re solved by our ceasing to do so.

**4.2.5 Is meaning identical with use?**

In a moment, we’ll evaluate Wittgenstein’s (1922) contention that all philosophical statements are ungrammatical nonsense. Right now, let us consider Wittgenstein’s (1958) contention that philosophical puzzles are dissolved by looking at how words are used.

This contention is incoherent on many levels. Given only the acoustical and morphological properties of its spoken and written occurrences, the word “knowledge” could mean anything.[[37]](#endnote-37) So, supposing that it’s the concept of knowledge that we wish to learn about, we can’t possibly know that the word “knowledge” is the right word to study *unless* we know that it expresses the right concept. But we can’t possibly know *that* unless we have some way of grasping that concept that doesn’t involve that word. So we can’t even act on Wittgenstein’s exhortation that we study knowledge by studying how people use the word “knowledge” *unless* we have some way of grasping the concept of knowledge that *doesn’t* involve that word. But if we don’t need that word to grasp that concept, we don’t need it to it study it; and if we don’t need it to study it, then Wittgenstein is simply wrong to say that one must study how it is used to understand the concept it expresses. Given any expression E and any concept C, an obvious extension of this argument shows that one can’t learn about C by studying E unless one can grasp C, and can therefore examine it, *without* E’s help. Thus, Wittgenstein is simply wrong to contend that one learns about concepts by learning about how the corresponding words are used.

“But you’ve over-stated what Wittgenstein is claiming,” it will be said. “Contrary to what you allege, he wasn’t saying that concepts are to be learned about *solely* by looking at how the corresponding words are typically used. He was saying only that knowledge of expression-usage would be a useful adjunct to some other, more important way of knowing about concepts.” If that’s what Wittgenstein is saying, then he’s conceding everything said the preceding paragraph.[[38]](#endnote-38) To grant that there is any expression-independent way of grasping concepts is to grant that expression-usage is to be evaluated *in light of* the very conceptual knowledge that, according to Wittgenstein’s thesis, one is supposed to acquire *through* the study of expression-usage.

But there’s a problem with our argument. It assumes that, given a meaningful expression (e.g. “knowledge”), there is some object that is its meaning. Wittgenstein rejects this assumption. He holds that there is no *entity* that is the meaning of “knowledge.” Wittgenstein’s position is, I quote, that “meaning is use.”[[39]](#endnote-39) In other words, for an expression to have a given meaning is for it to be used in a certain way. An expression’s having a given meaning does *not,* in Wittgenstein’s view, involve there being some entity that is its meaning.

Before we evaluate this contention, we must make a few facts about it clear. Wittgenstein isn’t making the uncontroversial point that how expressions are used is a function, in part, of what they mean. Nor is he making the equally innocuous point that how an expression is used may have *effects* on what it means. (“Probable” used to mean “capable of being definitively established.” Enough people used it to mean “likely, but not certain”; and, for that reason, that’s what it now means.) He is saying that *what it is* for an expression to have a given meaning is for it to be used in a certain way. Here is his argument:

(WA[[40]](#endnote-40)) According to some philosophers, there is some entity that is the meaning of “snow is white” and some other entity that is the meaning of “grass is green.” These entities are known as *propositions.* Propositions (if existent) are non-spatiotemporal entities.[[41]](#endnote-41)

The very idea of such an entity is of doubtful coherence. And even if such entities do exist, they’re nothing to us. We can’t see them or touch them or otherwise have anything to do with them. So, even if they do exist, they have no role in human affairs. At the same time, “snow is white” and “grass is green” differ in meaning. So we must find a way of saying what it is for two expressions to ‘differ in meaning’ that doesn’t involve our positing meanings.

This can be done. “Snow is white” isn’t used in the same way as “grass is green.” There are situations that prompt utterances of the one that don’t prompt utterances of the other. By the same token, if they *were* used in the same way—i.e., if there were no situation that prompted utterances of the one that didn’t prompt utterances of the other—then they wouldn’t differ in meaning. If the sensory stimulations that induced people to say “grass is green” coincided with those that prompted people to say “snow is white,” there would be no significant sense in which they “differed in meaning.”[[42]](#endnote-42) Thus, two sentences S1 and S2 coincide in meaning exactly if they are used in the same way. So instead of identifying the meaning of “grass is green” with some non-spatiotemporal entity—with some entity whose existence is in doubt and whose role in human affairs, supposing it to exist, is also in doubt—we can just say that two expressions “have the same meaning” if they’re used in the same way. An obvious

corollary is that for an expression to have this as opposed to that “meaning” is for it to be used in this as opposed to that way.

Were WA cogent, Wittgenstein would be doing to meanings what Frege did to square circles. Frege got rid of square circles by showing that sentences appearing to require their existence (e.g. “square circles simultaneously have, and lack, uniform curvatures”) are equivalent to sentences that don’t (e.g. “the statement *x is a circle* entails *x has a uniform curvature* and the statement *x is a square* entails *x does not have a uniform curvature*”). Wittgenstein wishes to get rid of meanings by showing that statements appearing to require the existence of expression-meanings are equivalent to statements (about expression-usage) that don’t.

This wish of Wittgenstein’s embodies some very wrong views as to what linguistic expressions are. A burst of noise that doesn’t have a meaning is just a burst of noise. A burst of noise is an *expression* only if it has a meaning. But if it already has a meaning, then how it’s being used isn’t what gives it its meaning.

Our knowledge of what words mean is what *guides* our linguistic behavior. Expressions have meanings. We know this. And that’s why we use expressions in the way we do. I know what “hug” means; I also know what “discuss” means. That’s why, when talking to my students, I say “I want to discuss the exam,” and not “I want to hug the exam.” If meaning were use, meaning couldn’t *guide* use. But it obviously does.

To the extent that meaning *doesn’t* guide use, people are *mis*speaking. Wanting to tell you that you’re an absolute genius, I say “you’re an absolute moron,” since, despite my generally good command of the English language, I wrongly think that “moron” means *genius.* To the extent that my uttering those words embodied a *failure* to know the actual meaning of what I was saying—to the extent that meaning *failed* to guide use, in other words—I *mis*spoke. And to the extent that my uttering those words embodied a knowledge of what they meant—to the extent that meaning *did* guide use, in other words—I spoke properly. This shows that, to the extent that utterances aren’t simply defective, meaning guides use and, consequently, that use is *not* constitutive of meaning.

Bearing these points in mind, let us revisit Wittgenstein’s (1958) contention that it’s a philosopher’s job, not to analyze concepts or meanings or other such alleged phantasms, but merely to take note of *when* words like “justice,” “knowledge,” and “truth” are used. What would it be to do this? The situations in which the word “justice” is used don’t necessarily have any observable characteristics in common with one another. It’s not as though people utter the word “justice” when, and only when, they’re just been bitten by a cat. This isn’t to say that uses of the word “justice” cannot be correlated in *any* way with facts about the situations in which those uses occur. Such correlations clearly can be made. People are likely to use that word when they’re in classes concerning **ethics** or the philosophy of *law;* they’re likely to use it when they **believe** that they’ve been **wronged**; they’re likely to be used by politicians who want people to believe them to be **worthy** of holding office.

The boldfaced terms express extremely abstract concepts; and utterances of those words are no more capable than utterances of the word “justice”‘ of being correlated with observable facts about the contexts in which they occur. So, while a person‘s decision to use the word ‘justice’ (or “knowledge” or “law,” etc.) may obviously have a situational basis, there is no way to identify that basis *except* in terms of the very concepts that, according to Wittgenstein, are to be studied by figuring *when* those terms are used. In other words, any correct generalization as to when words like “justice,” “logic,” “knowledge” and “morality” are used will *itself* employ the very concepts that, according to Wittgenstein, knowledge of such generalizations is supposed to yield.

These reflections bring us face to face with an incoherence inherent in all of the different variants of the contention that philosophy is sentence-analysis. To speak isn’t just to make noises; it’s to make noises for the reason that one believes those noises to have certain meanings. I’m with my friend Larry. All of a sudden he starts convulsing and foaming at the mouth. I call 9-1-1 and say (i) “my friend is foaming at the mouth and convulsing; please send help.” Why did I choose those words? Why didn’t I say (ii) “I like pizza” or (iii) ‘“giraffes are friendly creatures”? Because I know that (i) has the right meaning and that (ii) and (iii) don’t. In general, speaking consists in making noises for the reason that one believes that, given existing semantic rules, those noises have certain meanings. If somebody makes a noise that he does *not* believe to be assigned a meaning by any semantic rule, he isn’t speaking. If, not believing that the noises I’m about to make are assigned any meaning by any semantic rules, I say “blurga dunga blurbo,” I am not speaking. I’m just making noise. Maybe

the semantic rules of some language *do* assign them a meaning. That doesn’t matter. My making that noise wasn’t guided by my knowledge of such rules. So I wasn’t saying anything.[[43]](#endnote-43) And as we saw earlier, I am *mis*speaking if I misidentify the meaning assigned by existing semantic rules to the noises I am making. So there is no *bona fide* speech where there isn’t awareness of semantic rules.

Thus, the analysis of sentences isn’t the analysis of noises. (In this context, take references to “noises” to be short for references to anything that can constitute the occurrence of an expression—e.g., hand-movements, patterns of light on a monitor, etc.) In and of themselves, noises aren’t speech, as we just saw. It is only when a noise embodies an attempt to follow a semantic rule that it constitutes speech. So the analysis of speech—that is, of spoken sentences—concerns noises *only* to the extent that they embody attempts to follow such rules; and for the same reason *mutatis mutandis,* the analysis of sentences *per se,* as opposed to their spoken (or written) occurrences, necessarily involves, if it doesn’t coincide with, the analysis of those rules.

Those rules are not themselves sentences. The semantic rule that assigns meaning to “snow is white” is not itself a sentence.[[44]](#endnote-44) Given these points, what might it mean to say that philosophy is sentential analysis? It *could* mean that philosophy is the empirical study of different languages, i.e., that philosophy is linguistics. But that clearly isn’t what philosophy is. So it must mean that philosophy is the study of semantic rules *qua* semantic rules—that, in other words, it is the study of the *concept* of a semantic rule.

In that case, philosophy is also the study of those concepts that must be understood to understand the concept of a semantic rule. And there are many such concepts. Among them are narrowly semantic concepts such as ***compositionality, reference, quantification, force,*** and ***negation.***

But many of these concepts aren’t *only* of relevance to semantics. As we’ve seen, no noise constitutes a sentence-utterance unless it embodies an ***intention*** of a certain kind; and there is no linguistic behavior of any kind where people aren’t intentionally following what they ***believe*** to be existing semantic ***rules.*** Some believe that semantic rules are ***conventions.*** Others believe that they are ***functions*** (in the mathematical sense)— assignments of meanings or ***truth-conditions*** to noises or to properties that are instantiated by noises (or inkmarks, etc.). There is no way to figure out what semantic rules are without examining these concepts.

And even if these questions are side-stepped, and philosophers focus *only* on narrowly semantic concepts (e.g., reference, compositionality, etc.), philosophy ends up being the analysis, not of sentences, but of *concepts.* Thus, the thesis that philosophy is the study of sentences either collapses into the obviously false thesis that philosophy is the empirical study of language *or* into the thesis that philosophy is conceptual analysis (i.e., the analysis of the concepts in terms of which the world is understood). Thus, Wittgenstein’s contention that philosophy is the study of sentences collapses into the very view to which it is meant to be an alternative (viz. that philosophy is the analysis of concepts, as opposed to expressions), and is therefore false.

Let us now turn to Wittgenstein’s (1922) Tractarian contention that philosophical statements are ungrammatical nonsense.

**4.2.6 The Tractarian contention that philosophical statements syntactically ill-formed nonsense**

The sentence

(a) “one can be aware of the fact that 1 + 1 = 2 without being causally affected by that fact”

appears meaningful. So does the sentence

(b) “there could in principle be a legal system that failed to embody any morality at all.”

But, in the TLP, Wittgenstein says that that this is an illusion. Here is the viewpoint underlying this bold contention:

(TA[[45]](#endnote-45)) All philosophical statements are ungrammatical nonsense, and all philosophical problems would vanish if we spoke grammatically. “All philosophical problems belong to the same class as the question whether the good is more or less identical than the beautiful.”[[46]](#endnote-46) Thus, all philosophical statements belong to the same class as:

(BG) the good is more or less identical than the beautiful.

BG is obviously meaningless. The reason for this is that it’s syntactically ill-formed. If we produced only syntactically well-formed sentences, we wouldn’t produce nonsense like BG. Since all philosophical statements are in the same class as BG, we’d never produce any sentences whose merits it was the job of philosophy to determine.

Were the logical forms of (a) and (b) brought into alignment with their logical forms—in other words, were their actual meanings reflected in their grammar—they’d be ungrammatical since they have *no* meanings.

Although TA is a paraphrase, not a quotation, the part in quotes *is* an exact quotation from the TLP.[[47]](#endnote-47)

What Wittgenstein is saying isn’t confined to the defensible claim that philosophical problems are to be solved by clarifying statements. Wittgenstein is making two additional claims. First, no sentence that appears to make a philosophical statement means *anything.* Second, it’s *only* because they’re syntactically ill-formed that such sentences are meaningless—there is no other reason.

Let us evaluate these claims. Though ungrammatical, the sentence:

(MH) “me and Herby play tennis every day, and me always win because Herby not in good shape”

is perfectly meaningful. Ungrammatical statements are often meaningful. Thus, BG’s failure to mean anything cannot be entirely blamed on its being ungrammatical.

What’s the real problem with BG? The expression “more identical than” is obviously supposed to function in the same way as relational expressions, like “more important than” or “identical with.” But there is no relation that it picks out. Though it *consists* of English expressions, the expression “more identical than” is *itself* no more a part of the English lexicon than “blurga derba gurb.” For that reason, the meaninglessness of BG is to be accounted for in the same way as the meaninglessness of:

(BG#) “the beautiful is blurga derba gurb the good.”

The problem with BG# is that “blurga derba gurb” doesn’t mean anything. It may be that its meaninglessness is *reflected* in its syntax. It may be that *because* “blurga derba gurb” doesn’t mean anything, BG#’s syntax is off. But, if so, its syntactic shortcomings are to be explained in terms of its lack of meaning, not *vice versa.*

The same holds of BG. The reason that BG doesn’t mean anything is that “more identical than” doesn’t mean anything. BG’s syntactic shortcomings are to be explained in terms of its lack of meaning, and not *vice versa.*

This is easily verified. Given any relation R, if “more identical than” denoted R, BG would be meaningful. If, for example, it denoted the relation that is in fact picked out by the expression ‘a better dancer than,” BG would say that the good is a better dancer than the beautiful; and it would thus have the same meaning as

(BG\*) “the property of goodness is a better dancer than the property of being beautiful.”

BG\* isn’t meaningless; it’s false. The property of goodness can’t dance; neither can any other property, including the property of being beautiful. Therefore, the former property isn’t a *better* dancer than the latter. Nothing false is meaningless, since to be false is to bear a false meaning. So BG\* is meaningful.

Incidentally, according to Gilbert Ryle (1900–1976), a career-long Wittgenstein-hardliner, it cannot meaningfully be said of properties that they can, or cannot, dance.[[48]](#endnote-48) It can be said of a human being that he can, or cannot, dance. But nothing that can meaningfully be said of non-properties, such as human beings, can be meaningfully said of properties themselves.

Ryle’s position is false. There are many differences between people and properties. One of them is that people can dance, whereas properties cannot. Ryle’s position is also self-refuting. In saying that it cannot be said that properties cannot dance, Ryle is saying exactly what it is that, according to his theory, cannot be said.

Ryle is confusing absurdity with meaninglessness. The sentence “triangles have four sides” makes an absurd, but meaningful, statement. Given that triangles have three sides, not four, it’s false. Given that it’s false, it’s meaningful. “Properties can dance” is absurd and, therefore, false and, therefore meaningful.

There are two kinds of “nonsense.” A sentence can be nonsense by failing to have *any* meaning. (BG# is nonsense in this sense.) And a sentence can be nonsense by virtue of having of an absurd meaning. (“Properties can dance” is nonsense in *this* sense.) Ryle doesn’t distinguish between these two kinds of nonsense. Neither does Wittgenstein. And Wittgenstein’s position, like Ryle’s, is self-refuting—and for much the same reason. If Wittgenstein is right to say that all philosophical assertions are ungrammatical nonsense, that very assertion is ungrammatical nonsense and therefore isn’t true.[[49]](#endnote-49)50

Given how implausible and illogical it is, why on Earth did Wittgenstein hold that philosophical statements are always ungrammatical nonsense? The answer, I believe, is that Wittgenstein thought this view to be the distillation of Frege’s groundbreaking philosophical successes. Frege showed that reparsing sentences sometimes solves philosophical problems. By reparsing

(NS) “nothing is a square circle,”

we show that it doesn’t attribute the property of being a square circle to some non-entity, thereby dissolving an age-old riddle. Wittgenstein seems to have inferred from these successes of Frege’s that *all* philosophical problems are to be solved by reparsing sentences.

This inference is fallacious. Given only that some philosophical problems are to be solved by reparsing sentences, it doesn’t follow that they are all to be solved in that way. And we’ve seen that, indeed, many of them are not to be solved in that way.

Also, there were no cases where Frege’s reparsing of a problematic sentence showed it to be ill-formed. For example, in reparsing NS, Frege showed that its logical syntax differed from its apparent syntax. He didn’t show that there was anything *wrong* with its logical syntax.

To be sure, philosophers often produce deeply absurd statements. For example, according to pre-Fregean philosophers, NS entails that:

(NS1) there exists some non-entity that that is *a* square circle.

If NS1 is right,

(*NS*2) there exists some entity that does not exist that is a square a circle.

NS2 is self-contradictory and therefore absurd. But it’s obviously meaningful.[[50]](#endnote-50)51 If it weren’t, it wouldn’t contradict itself. (For a sentence to contradict itself is for it to bear two opposed meanings. “Smith is a lawyer and Smith is not a lawyer” because the one ***conjunct*[[51]](#endnote-51)52** contradicts the other.) But whereas this sentence is explicitly self-contradictory, the self-contradictory sentences that people actually utter are usually only implicitly so.)

In any case, even if philosophical statements are meaningless, they’re not meaningless *because* they’re ungrammatical. Second, they’re not meaningless. The statement that they’re meaningless is itself a philosophical statement. That statement is therefore false if it’s true. Therefore it is false. (Any statement that entails its own negation is false.[[52]](#endnote-52)53)

**4.3 The Tractarian roots of Logical Positivism**

Although one of the TLP’s contentions is that all philosophical statements are ungrammatical nonsense, this is not its main contention. The main contention of the TLP is that:

(CT[[53]](#endnote-53)54) a sentence is meaningful if, and only if, it is either a ***tautology*** or an ***observation report.***

A “tautology” is a definitional truth (e.g., “fathers are male,” “there are three feet in a yard”).

An “observation report” is a statement that reports what one’s senses have told one (e.g., “I am now seeing a dog,” “there is chocolate syrup (or, in any case, a brown discoloration of some kind or other) on Smith’s ice-cream,” “I can see your house from here”).

CT can be broken down into two claims:

(1) All meaningful non-empirical statements are *tautologies*

and

(2) All meaningful non-tautologous statements are *observation-reports.*

(1) entails that non-empirical disciplines (e.g., philosophy, mathematics) consist of statements that say nothing about anything. (2) entails that anything non-tautologous that cannot be known *strictly* on the basis of what one’s senses tell is meaningless.

Wittgenstein’s claim that all philosophical statements are ungrammatical nonsense is a ***corollary*[[54]](#endnote-54)55** of CT. If they’re meaningful, philosophical statements, unlike tautologies, are non-trivial. Consider the statement that:

(KC) “knowing a truth doesn’t necessarily involve one’s being affected by the state affairs described by that truth.”

KC is a philosophical statement; and so its negation. Neither statement is a tautology, and neither statement is empirical. If CT is correct, it immediately follows that both KC and its negation are ungrammatical nonsense. Since philosophical assertions are *never* tautologous, CT entails, as Wittgenstein knew, that philosophical assertions are categorically meaningless.

The position that (1) and (2) are both correct is known as *logical positivism* (LP). During the decade or so following the publication of the TLP, and largely because of it, LP was very popular.[[55]](#endnote-55)56 But (1) and (2) are false. Let us now say why.

**4.4. Verificationism and falsificationism**

(2) is identical with a doctrine known as ***verificationism.*** According to verificationism a non-tautologous statement is meaningful ***iff*** it’s capable of being verified strictly on the basis of sensory observation.[[56]](#endnote-56)57

Verificationism is false. The statement “all metal expands when heated” is meaningful. But it cannot be conclusively verified (i.e., shown to be true) strictly on the basis of observation. No matter how many metal objects you find to expand when heated, it’s a possibility that some metal object that you haven’t yet considered will fail to do so.[[57]](#endnote-57)58

Even though it cannot be verified “all metal expands when heated” can be *falsified* (i.e., shown to be false) strictly on the basis of observation. Advocates of LP saw this and, having for this reason rejected verificationism, accepted a doctrine known as ***falsificationism.*** According to falsificationism, a non-tautologous statement is meaningful if and only if it’s capable of being falsified strictly on the basis of observation.[[58]](#endnote-58)59

Falsificationism is false. Though obviously meaningful, the statement “there exists a gold ball that weighs exactly 27.13654 lbs” cannot be conclusively falsified, since no matter how many gold balls you consider, it’s possible that some gold ball that you haven’t considered has that weight.

Falsificationism is really a version of verificationism. According to verificationism, S is meaningful if verifiable. According to falsificationism, S is meaningful if S’s negation is verifiable. So given that verificationism fails, it’s no surprise that falsificationism does as well.

In light of the failure of falsificationism, advocates of LP decided to soften their views about meaningfulness one more time. This time, they said that a non-tautologous statement is meaningful if possible observations can ***confirm*** it. (P confirms Q if, other things being equal, Q is more likely to be true if P is true than if not-P is true. Other things being equal, Smith is more likely to be wealthy if he wears fancy clothes than if he doesn’t wear fancy clothes. Thus, “Smith wears fancy clothes” confirms “Smith is wealthy.”) We’ll refer to this view as “confirmationalism.”

Confirmationalism is equivalent with the position that all meaningful non-tautologous statements are ***empirical.*** An empirical statement is one that, if true, expresses a truth that must be known through observation and that, if false, is the negation of a true empirical statement. “There are trees in Santa Barbara, CA” is a true empirical statement, and “there are no trees in Santa Barbara, CA” is a false one. The negation of an empirical statement is an empirical statement. This is becasue, if it’s an empirical question whether or not S is true, then it’s an empirical question whether or not S is false and, therefore, whether or not not-S is true. (There are, as we will see, very few truths, if any, that can be known *strictly* through observation. A statement is empirical if the truth or falsity of it is to be decided on grounds that are at least *partly* observational.)

Henceforth when we refer to “logical positivism” (LP), we will refer to the position that a **statement S is meaningful if and only if (i) S is a tautology (e.g., “sisters are female siblings”) or (ii) S is an empirical statement (e.g., “there are trees in Santa Barbara”).[[59]](#endnote-59)60**

**4.5 Logical Positivism Evaluated**

Consider the statement:

(1) “triangles are three sided figures.”

(1) is plausibly seen as just being true by convention. The same is true of:

(2) “pentagons have five sides.”

For argument’s sake, we’ll grant that, indeed, (1) and (2) are true by convention—that they’re definitional truths.[[60]](#endnote-60)61 Given (1) and (2), it follows that:

(3) If x is the number of sides of an arbitrary triangle and y is the number of sides of an arbitrary pentagon, then w is an even prime iff w is one less than x and three less than y.

But (3) clearly isn’t a conventional truth. Though it follows from conventions, (3) is not itself a convention. (3) is thus a non-tautologous, non-empirical truth. It follows that LP is false.

It’s possible to have conventions that are ***inconsistent*** with one another. If I stipulate that “x” unambiguously refers to the number two, and I also stipulate that “x” refers to the number of sides of a triangle, my definitions are inconsistent with one another. The internal consistency of conventions is not itself a matter of convention. It isn’t an empirical fact that the conventions just described are inconsistent with each other. To say that P is inconsistent with Q is to say that P *must* be false if Q is true. Observation cannot tell you what *must* be the case; it can tell you, at most, what *is* the case. So it cannot tell you that two linguistic conventions are inconsistent with each other.

Since observation cannot tell you whether or not two statements are inconsistent with each other, it cannot tell you whether or not one statement is a necessary consequence of some other. This is because for Q to be a necessary consequence of P is to P to be inconsistent with the ***negation*** of Q. (The negation of "snow is white" is "snow is not white." In general, the negation of a Q is not-Q.)

When evaluating LP, one must be careful to distinguish sentences from their meanings. Two different sentences can have the same meaning (e.g., “snow is white” and “schnee ist weiss”). The meaning of a sentence is a ***proposition.*** Propositions are not sentences. The thing meant by “snow is white” is not itself a sentence. Some sentences express propositions that are logically true. A proposition is logically true if the laws of logic prohibit its negation from being true. The proposition meant by

(4) “If a given thing is round, then that thing is not a square”

is logically true, since the laws of logic don’t allow round things to be square. And some authors, for this reason, would describe (4) itself, the sentence, as logically true. But what they mean is that, *given* what it is that it means, (4) must be true. So what they are *in fact* describing as logically true is the proposition that (4) couldn’t be false, given what it is that it means.

Thus, it is always propositions, and never sentences, that are logically true. But no *proposition* is true by convention. It’s up to us what our symbols mean. But it’s not up to us whether those meanings are correct. It’s up to us what it is that “the moon is not made of cheese” means. But it isn’t up to us whether that meaning is correct. LP identifies logical truth with conventional truth: truths of logic are sentences that are true by convention. But that’s false. Logical truths are never sentences; they’re always propositions, and propositions are never conventionally true.

Incidentally, (ii) collapses into (i). Linguistic conventions are known empirically. It can be known only through observation that “triangles have three sides” is true. That sentence could mean anything.[[61]](#endnote-61)62 It could mean that penguins are smarter than humans; and it’s only because you’ve had the requisite sense-perceptions that you know it not to mean this.

It should be pointed out that logical positivists were unanimous in denying the existence of propositions and of meanings generally. Logical positivists didn’t accept the view that for a lecture to concern triangles is for the meaning of that lecture to concern triangles. This is why Rudolph Carnap[[62]](#endnote-62)63 (1890–1970), an LPhardliner for many years, said that for a lecture to concern triangles is for the word “triangle” to occur in the lecture.

Carnap’s view is false. Many a lecture that doesn’t contain the word “triangle” concerns triangles. (Think of all the mathematics lectures given in Japanese, Swedish, and Arabic. How often does the word “triangle” occur in them?) And a lecture that contains the word “triangle” isn’t necessarily about triangles. Somebody giving a lecture on linguistics may use the word ‘triangle’ to illustrate some point about phonetics; but in so doing, that person isn’t talking about triangles. They’re talking, not about triangles, but about the *word* “triangle.”

The distinction between the word “triangle” and the corresponding meaning is one that Carnap couldn’t countenance without ceasing to be a logical positivist. The very essence of logical positivism is the denial of meaning. For argument’s sake, suppose there to exist objects that are the meanings of sentences. (Following convention, we’ll refer to these things as “propositions.”) Given the existence of propositions, whether a given sentence is meaningful is *not* to be explained in terms of its being either tautologous or confirmable. Rather, a sentence’s being tautologous or confirmable is to be explained in terms of its bearing a proposition of a certain kind. A tautologous sentence would be one that had a logically correct proposition for its meaning, and a confirmable sentence would be one that had a confirmable proposition for its meaning. But if there are logically true propositions, then some truths are *ipso facto* not empirical.

We can use words in any way that we like. We can use the words “if Smith has three boats, then Smith has more than one boat” to mean that 1+1=3. But whatever meaning we end up assigning to those words, it’s not up to us whether that meaning is correct. And if, as is actually the case, that meaning is of a logical nature, there is *ipso facto* non-empirical truth, an immediate consequence being that LP is wrong.

Carnap’s attempt to do away with meanings consisted in his saying (though he did not himself put it this starkly) that the meaning of the word “snow” was that very word, i.e., that words were their own meanings.[[63]](#endnote-63)64 Given how brazenly wrong this view is, Carnap’s attempt to do away with meanings never had many takers.

A much better received attempt to do away with meanings is to be found in a doctrine known as ***conceptual role semantics*** (CRS). According to CRS, two sentences have the same meaning if, and only if, they are *used* in the same way. So “hace mucho calor” is the Spanish translation of “it’s hot” *not because* those sentences share a meaning—meanings don’t exist, according to CRS—but because the one sentence is used in the same way as the other.[[64]](#endnote-64)65

CRS seems to coincide with the Wittgenstein-Grice thesis that “meaning is use.” It’s thus a mystery why CRS is so popular, given that Grice’s coincident position was universally rejected long ago.

In any case, CRS is indefensible. So far as she isn’t misspeaking or randomly barking out noises, anyone who says “it’s hot out” or “hace much calor,” or any other sentence, does so because she knows that existing semantic rules assign a certain proposition to those words and she wishes to put that proposition into words.

One immediate consequence of this is that Carnap’s position is false. Another immediate consequence is that what it is for those two sentences to have the same meaning is *not* for them to be “used in the same way.”

Also, given any natural language, there are infinitely many sentences belonging to it that have never been used. The thesis that sentences have the same meaning iff they’re used in the same way has the absurd consequence that any two sentences that haven’t been used before have the same meaning. (If two sentences aren’t used at all, they aren’t used differently, and are therefore used in the same way, if only in a vacuous sense.)

**4.6 Logical Positivism Evaluated (continued)**

Let’s resume our discussion of Logical Positivism (LP). We’ve seen that, contrary to what LP says, there are non-empirical truths that have nothing to do with anyone’s linguistic practices. We’ll now see that, contrary to what LP says, there are facts about the spatiotemporal world that cannot possibly be known strictly on the basis of sense-perception.

Let NT be the body of assertions jointly constituting Newton’s physics.[[65]](#endnote-65)66 There is no denying that NT is meaningful. But *by itself* NT doesn’t make any predictions or otherwise have observable consequences. Physical laws are expressed by ***conditional*** assertions—that is, by statements of the form ‹if P, then Q.›[[66]](#endnote-66)67 NT doesn’t say anything about how this or that physical object will behave. It says how a given object will behave *if* certain conditions are met. NT says, for example, how an object will behave *if* it has a certain mass and is within a certain distance of another body having a certain mass.[[67]](#endnote-67)68 But NT itself obviously doesn’t say that this or that object has this or that mass or is within this or that distance of this or that other specific body. Thus, *taken by itself,* NT isn’t confirmable. What *is* confirmable isn’t NT, but NT *plus* statements describing specific matters of fact. What is confirmable isn’t NT, but some statement of the form t ‹given such and such, NT makes it likely that thus and such.›

But NT is obviously meaningful. This is a problem for LP. To deal with it, advocates of that doctrine proposed that (ii) be replaced with the position that (ii\*) a statement S1 is meaningful if there is some statement S2, such that *given* S2, S1 is confirmable (i.e., capable of being supported by observation).

By this standard, “the nothing nothings” qualifies as meaningful and so does every other nonsense sentence one can think of. Given the statement “if grass is green, then the nothing nothings,” anything that confirms “grass is green” confirms “the nothing nothings,” and “the nothing nothings” thus qualifies as meaningful.

LP replaced (ii\*) with other, similar proposals. But they all ended failing for reasons similar to the one just discussed.[[68]](#endnote-68)69

**4.7 LP self-defeating**

For the reasons just given, it soon became clear that LP was unsalvageable, and soon everybody jumped ship. In fact, it was some of LP’s most staunch proponents who first made it clear what LP’s shortcomings were.

We’ll see this in this chapter when we discuss the brilliant criticisms of LP put forth by Carl Hempel (1905–1997), who was one of LP’s first and most ardent advocates.

But erstwhile advocates of LP tended not to see the incoherence that lies at the center of that doctrine. When saying why they rejected LP, they usually cited narrow, technical problems of the sort just discussed. What they didn’t do, but what we’re about to do, is to say why LP is at its very core a broken and illogical doctrine.[[69]](#endnote-69)70

Anything that is true or false is meaningful. Truth implies meaningfulness and so does falsity. Thus, LP is meaningful if it’s correct. LP says that any meaningful statement is either a tautology or is empirical. So if LP is correct, it is itself either a tautology or it is empirical.

It isn’t a matter of convention that the expression “meaningful sentence” is interchangeable with the expression “sentence that is either a tautology or is empirical.” Therefore, LP isn’t a tautology.[[70]](#endnote-70)71

Since it isn’t a tautology, LP is an empirical truth if it isn’t false.

But LP isn’t an empirical truth. Any attempt to provide an observational basis for any statement presupposes the meaningfulness of that statement and thus presupposes an answer to the question “what conditions must a statement fulfill to be meaningful?” For this reason, the question “what conditions must a statement satisfy if it is to be meaningful?” isn’t empirical in nature. It follows that one cannot coherently attempt to find *empirical* grounds for accepting LP, since any attempt to do so *itself* presupposes the meaningfulness of LP. Thus, LP isn’t an empirical theory.

Thus, LP is neither an empirical truth nor a tautology. It is thus a counterexample to itself and is therefore false.

Interestingly, in the TLP, Wittgenstein seems to be aware that one cannot coherently say that there can be non-tautologous meaningful statements. Not a single one of the assertions in the TLP is empirical; and not a single one of them is a tautology. This means that, if the TLP's main thesis is correct, the TLP is nonsense. Wittgenstein acknowledges this. For he ends his book by saying that everything that he says in it is meaningless and that those points ought to be seen, not as truths, but as ladders that one can use to get to the truth but that, once one actually gets there, one must throw away, since they are not themselves truths. Here are the very last words of the TLP:

“My propositions serve as elucidations in the following way: anyone who understands me eventually recognizes them as nonsensical, when he has used them—as steps—to climb up beyond them. (He must, so to speak, throw away the ladder after he has climbed up it.) He must transcend these propositions, and then he will see the world aright. What we cannot speak about we must pass over in silence.”[[71]](#endnote-71)72

So far as they aren’t trivial, these magisterial words are false. To understand something *is* to see its meaning. Therefore, anything that is understood has a meaning. So Wittgenstein’s words, if understood, have a meaning, and Wittgenstein is therefore contradicting himself in saying that those who understand his words will see that they’re meaningless. Wittgenstein’s awe-inspiring injunction that we pass over in silence what we can’t speak about involves a similar solecism. To remain silent about something *is* to pass over it in silence. So Wittgenstein is asking, emptily, that we not say anything about what we can’t possibly say anything about.

**4.7.1 Empiricism self-refuting**

These points are easily extended to show that ***empiricism*** is false if it’s true and, therefore, that it’s false.

Empiricism isn’t the claim that

(1) whatever we know *now,* we learned it through sense-perception—but it’s possible that at some time in the future we’ll acquire knowledge in some other way.

Empiricism is the doctrine that everything that can be known *must* be known through observation, i.e., that

(2) it’s inherent in the nature of knowledge that all knowledge be strictly observation-based.

But it cannot be known through observation that (2) is correct. According to (2), ‹x is knowledge› is inconsistent with ‹x isn’t known through observation.› But, as we noted on page 24, observation cannot tell you whether one statement is consistent with some other statement. Thus, any body observational data is consistent with the assumption that empiricism is false.

This means that there cannot be strictly observational grounds for believing empiricism correct. Thus, so far as empiricism is correct, there are no grounds for believing it correct; and so far as there are such grounds, empiricism is false. Thus, the likelihood that empiricism is correct is inversely proportional to the degree of probability that the information at our disposal confers on it. And this means that, if it’s a certainty that empiricism is correct, it’s a certainty that it’s false. Therefore, empiricism, if true, is false; therefore it’s false.

The final sentence of a famous argument given by Bertrand Russell (1872–1970) ends with a sentence very similar to the last one. (This was deliberate.) The argument in question is to the effect that “naïve realism”—which is a specific, particularly extreme form of empiricism, and is therefore relevant in this context—is false:

We all start from naïve realism, i.e., the doctrine that things are what they seem. We think that grass is green, that stones are hard, and that snow is cold. But physics assures us that the greenness of grass, the hardness of stones, and coldness of snow are not the greenness, hardness, and coldness that we know in our experience, but something very different. The observer, when he seems to himself to be observing a stone, is really, if physics is to be believed, observing the effects of the stone upon himself. Thus, science seems to be at war upon itself. When it most means to be objective, it finds itself plunged into subjectivity against its will. Naïve realism leads to physics; and physics, if true, shows that naïve realism is false. Therefore, naïve realism, if true, is false; therefore it’s false.[[72]](#endnote-72)73

Though eloquently stated, this argument consists of spurious reasoning for a false conclusion. In observing the paper-weight on my desk, I’m not observing some effect of the stone upon myself: I’m observing the stone itself. To be sure, my observing the stone is *itself* an effect of some event involving the stone. (Light bounces off the stone and, in due course, strikes my retinas, precipitating various physiological and psychological responses, among them the aforementioned sense-perception.) But that doesn’t mean that *what* I’m seeing, in having that sense-perception, is some effect that the stone had on me; and unless we’re perpetually hallucinating, in which case we’re never observing anything external, we very obviously do observe external objects.

This brings us to the second problem with Russell’s argument. Russell says that the greenness, hardness, and coldness of daily observation are not identical with the counterparts in physics. This is false. Physics has a lot to say about greenness, hardness, and coldness that commonsense does not. But that’s very different from saying that the coldness we feel, the greenness we see, etc., *aren’t* the greenness, coldness, and hardness of physics. Physics tells us *what it is* for something to have the properties we know them to have through sight, touch, etc. When you grab and object and feel that it’s cold, you don’t feel or otherwise sense-perceive the micro-events *in virtue of which* it is cold. It’s the job of the theoretical physicist to tell you about these microevents. This means that the coldness studied by the physicist *is* identical with the coldness that you feel. Physics tells us that many of our pre-theoretic beliefs as to what *that coldness is* are wrong; and in order to do that, it has to study the coldness that those pre-theoretic beliefs concern. So Russell’s argument, despite Einstein’s high regard for it, is a failure.[[73]](#endnote-73)74

**4.7.2 The empiricism-unfriendliness of the concept of confirmation**

Confirmationalism, the doctrine that a non-tautology is meaningful iff confirmable, is a form of empiricism. But we’ll now see that the concept of confirmation is an incoherent one *unless* it’s granted that there is nonempirical knowledge and, therefore, that confirmationalism is incoherent.

An argument due to Nelson Goodman (1954) makes this clear[[74]](#endnote-74)75:

(GA[[75]](#endnote-75)76) Let’s say that an object is “grue” if it’s green and examined before Jan. 1, 2010, or it’s blue and examined anytime thereafter. All green objects examined before Jan. 1, 2010, are grue. So, supposing that we’ve examined ten million emeralds before Jan. 1, 2010, and found them all to be green, we’ve also found them to be grue. Presumably, the fact that they’ve all been green warrants the inference that they’ll be green after Jan. 1, 2010. But, so far as that data entitles us to infer that they’ll be green, it also entitles us to infer that they’ll be grue and, therefore, blue.

This line of thought is easily extended to show that anything can confirm anything.[[76]](#endnote-76)77 Let phi, psi, and chi be three properties such that (i) a thing is phi if it’s examined by a human being who knows and therefore truly believes that, at that time, no human being can fly; (ii) a thing is psi if examined by a human who knows that, at that time, all human beings can fly; and (iii) a thing is chi if it’s examined before Jan. 1, 2010, and known to have phi or it’s examined after that time and is known to have psi. Since everything ever examined as of the present time (May 24, 2009) has had phi, it’s also had chi. So given that, thus far, no human has been able to fly, we’re no less entitled to infer that in 2015 they’ll all be able to fly than we are entitled to infer that, at that same time, none of them will.

GA can be taken to show *either* that no inductive inference is better than any other *or* that, since some inductive inferences clearly are better than others, GA must involve an error of some kind. Supposing that the second interpretation is the right one, it’s easy to identify the problem with GA. Contrary to what that argument tacitly assumes, induction does not have strictly observational basis. From a strictly *observational* standpoint, it’s no less correct to describe an emerald examined in 2009 as “grue” than it is to describe it as “green.” Given any body of data, there are different, but equally *observationally legitimate* ways of describing it. This means that, if any inductions are better than any others, we must have legitimate but at least partly *non*observational grounds for believing that, when making inductive inferences, certain properties (e.g., *green*) are relevant and others (e.g., *grue*) are not. (These grounds are identified in Chapters 12 and 18.)

**4.8 The brokenness of the concept of tautological truth**

In this section we'll see that it is utterances of sentences, not sentences per se, that are tautologies. For reasons that will become clear, this entails that, contrary to what LP alleges, non-empirical truth cannot be identified with conventional truth.

Whether a given utterance is tautologous very much depends on the manner in which the person hearing that utterance learned the meanings of the expressions composing it. A story may help make this clear. You don’t know to what length the word “yard” refers, and you ask your friend Smith to give you this information. In response, he points to some object L and says: “the length of *that* object is one yard.” L is *in fact* three-feet long. But you can’t tell this just from looking at it. You can tell roughly, but not exactly, how long L is. You don’t bother to measure L. This all happens on Monday.

The next day, you see some object M. You measure it and find that its length is three feet. You tell your (still present) friend Smith that M is exactly three-feet long. You know, of course, that M’s length is more or less comparable to L’s—that neither length is, for example, ten times as great as the other. But you don’t have precise knowledge of their comparative lengths; you don’t know, for example, whether L’s length is within six inches of M’s. Because you have a passion for knowing the comparative lengths of objects, you find this upsetting, and you tell Smith that you wish you knew how L’s length compared to M’s. Smith says: “I don’t know

why you’re upset. You’ve measured M and found that it’s three-feet long. Since, as you know, L is a yard long, it’s patently obvious what M’s length is.” You don’t quite know what he means, and you tell him this. Somewhat irritated, he says:

(i) “there are three feet in a yard.”

Under these circumstances, (i) is *not* trivial and, therefore, is *not* a tautology. It *would* be tautologous if you had learned the meaning of the word “yard” by being told that “yards are lengths of three feet.” But this isn’t how you were told it. You were *shown* a yard-long object and told that the word “yard” refers to its length. Obviously that visual perception *did* apprise you of that object’s length. But the *way* it described that length to you was different from the *way* that this same information would be conveyed to you by an utterance of: “the lenght of *that* object is one yard.”

And given the information embodied in your visual perception’s of L and M, it wouldn’t be a trivial matter to know that the length described by the contents of your L-perceptions coincided with that described by your M-perceptions. Therefore, (i) would not, under those circumstances, express a tautology, at least not from your perspective. But it *would* express a tautology from the perspective of somebody to whom “yard” had initially been defined as “distance of three feet.”

So even though it’s standard practice among philosophers to describe *sentences* as “tautologies,” this practice embodies a serious confusion. A given sentence may or may not be tautology, depending on the manner in which the auditor learned the meanings of its constituent expressions and depending, therefore, on the information *on the basis of which* the auditor knows those meanings.

It might be thought that, so far as (i) is non-trivial to you, it’s only because you don’t *really* understand it. This isn’t true. To somebody who doesn’t speak Albanian, a sentence of Albanian isn’t trivial or non-trivial. It doesn’t mean anything to you and is, from your perspective, just so much noise and is no more “trivial” or “non-trivial” than the sound of wind chimes. But, in our story, you *do* know what is meant by (i). It’s not as though you’re hearing a sentence of Albanian (or, if you happen to speak Albanian, a sentence of some language that you don’t know). Therefore, it is only because you understand Smith’s utterance of (i) that it is nontrivial for you. Therefore, tautologousness, and non-tautologousness, are properties, not of sentences, but of the information on the basis of which auditors figure out the meanings of sentences. And it’s wrong to say that sentences *per se* are, or are not, tautologies.[[77]](#endnote-77)78

This story illustrates some deeply important facts that are in the philosophy of language. First, one knows the meanings of expressions descriptively. It is through sight and hearing (and, possibly, other sensory modalities; e.g., touch) that you learn what words mean. Your perceptions apprise you of facts about the world by describing them to you—by apprising you of their colors, shapes, etc. Two very different descriptions can pick out some one thing (cf. “the third U.S. President” and “the President responsible for the Louisiana Purchase”). Therefore, the perceptually encoded descriptions *through* which one learns what two expressions mean may differ enormously, *even* if those expressions mean the same thing. A consequence is that what utterances tell you is as much a function of the information through which you learn their meanings as it is of the those meanings themselves. Thus, a given sentence may convey very different propositions to different people, all of whom know what it means, the reason being that those people access that meaning through different descriptions.

**4.9 An alternative to the logical positivist conception of meaningfulness**

The logical positivist’s analysis of meaningfulness was a complete failure. I’d like to propose an alternative to it.

First of all, when asked to give examples of meaningless statements, the logical positivists tended to cite sentences that nobody ever uses; for example, “the nothing nothings”1, “the all is one,” “the absolute is perfect.” This is deeply suspicious: a theory that only takes on straw men can’t be much of a theory.

And LP can’t even prevail against these straw men. For, contrary to what its advocates said, the problem with these so-called statements is *not* that they’re incapable of empirical corroboration. Consider the sentence:

(i) “the universe is a perfect unity.”

Much loved by many a freshman narco-intellectual, this is a meaningless sentence if ever there was one; and it is just the sort of sentence that logical positivists had in mind.

But if it were said what exactly it means to describe something as a “perfect unity,” (i) *would* be meaningful, as it would then be true or false. If, by a “perfect unity”, one means an object that consists of events bearing a specified causal or logical relationship to one another, then (i) is either true or false, depending on the identity of that relationship. For example, if a “perfect unity” is an object such that, given any two nonsimultaneous events composing it, there is a possible causal process connecting the first of those two events with the second, then (i) is true.1 (In contemporary physics, ‹x precedes y› is defined as: ‹there is a possible causal process, e.g. a light-signal, beginning with x and ending with y.› ) On the other hand, if, by a “perfect unity,” one means an object such that, if x and y are any two of its parts, the very idea of x’s existing in the absence of y is an incoherent one, then (i) is meaningful—and false. (One can coherently imagine a universe in which Cheney exists but Biden does not.)

In any case, the term “perfect unity” is clearly intended to refer to some sort of causal or logical integratedness, and once that mode of integration is pinpointed, (i) speedily becomes a true or false claim.

“Statements” such as “the universe is a perfect unity,” “the nothing nothings,” and so on, aren’t really statements at all. They’re ***statement-forms****.* (i) is obviously supposed to attribute some property to the universe. But since this property isn’t identified, (i) contains an undefined term and therefore says nothing. Once that term is defined, a meaningful statement results.

It’s true that (i) is neither tautologous nor confirmable. But that’s a *consequence* of the real problem, viz. that “perfect unity” is undefined. (i) is comparable to “x is tall.” The reason “x is tall” says nothing is that “x” is undefined—it hasn’t been assigned a referent. And no sooner is a referent assigned to “x” than “x is tall” becomes meaningful. (“x is tall” comes to have the same meaning as “Bob Dole is tall” the moment Bob Dole is assigned to “x.”)

Before “x” is assigned a referent, “x is tall” is neither confirmable nor tautologous. But that’s only a symptom of the real problem, viz. that “x” doesn’t have a referent. The same thing *mutatis mutandis* is true of (i).

Let’s move onto the next phase of our argument. If S is a meaningful sentence, there is some object x and some property phi such that S says that x has phi. In other words, any given sentence is equivalent to one that has the form: ‹x has phi.› Let us now say why this is so.

Any non-compound sentence (i.e., any sentence that doesn’t consist of other sentences) either says of some individual that it has some property or it says that two more individuals are interrelated in a certain way. Thus, “Smith is tall” says of some individual (Smith) that he has a certain property (tallness), and “Bob loves Sally” says that one individual (Bob) bears a certain relation (that of loving) with respect to some other individual (Sally).

“Smith is tall,” “Jerry snores,” and all other non-relational, non-compound sentences obviously have the form ‹x has phi.› And, though it isn’t obvious, the same is true of “Bob loves Sally,” “Wilma detests Linda,” and all other non-compound sentences that affirm the existence of relations between two or more objects. Let “R” be defined as follows: for any objects x and y, ‹ <x,y> has R› is true iff x loves y. (So for any objects x and y, the ordered pair <x,y> has R exactly if x loves y.) Thus, “Bob loves Sally” is equivalent with “<Bob, Sally> has R,” which has the form ‹x has phi.›

A similar procedure can be performed on sentences (such as “Bob is standing in between Sally and Larry”) that affirm the existence of relations involving three or more objects. Let “R\*” be defined as follows: for any objects x, y, and z, ‹<x,y,z> has R\*› is true iff x is standing in between y and z. Thus, “Bob is standing in between Sally and Larry” is equivalent with “<Bob, Sally, Larry> has R\*,” which has the form ‹x has phi.› Other non-compound relational sentences are to be dealt with similarly.

What about compound sentences? Not a problem. Let “K” be defined as follows: for any sentences S1 and S2, ‹ <S1, S2> has K› is true iff the state of affairs described by S1 is a consequence (of some kind or other) of the state of affairs described by S2. Thus, “Smith broke his leg because he fell out of the a tree” is equivalent with “<Smith broke his leg, Smith fell out of the a tree.> has K,” which has the form ‹x has phi.› Other compound sentences are to be dealt with similarly.

Negative sentences are particularly easy to deal with. “Smith doesn’t smoke” is equivalent with “the proposition that Smith smokes is false,” which clearly has the form: ‹x has phi.› Other negative sentences are to be dealt with similarly.

There is only one kind of sentence that we haven’t yet considered, namely, ***quantified generalizations.*** A “quantified generalization” is any statement that says how many members one class of objects has in common with some other class of objects. Examples are: (a) “some person smokes,” (b) “no giraffes fly,” and (c) “all mice read Tolstoy.” (a) says that the class of people has at least one member in common with the class of smokers. (b) says that the class of giraffes has no members in common with the class of things that fly. And (c) says that the class of mice has no members in common with the class of things that don’t read Tolstoy.

Bearing this in mind, let “E” be defined as follows: for any properties P and Q, ‹ <P, Q> has E› is true iff the class of things having P has a least one member with the class of things having Q. Thus, (a) is equivalent with: “<the property of being a person, the property of being a smoker>, has E” which obviously has the form ‹x has phi.› Other quantified generalizations are to be dealt with similarly.

We have thus established that any given sentence S is equivalent to some sentence having the form ‹x has phi.› Given this fact, there is an obvious answer to the question “what is it for a sentence to be meaningful?” A sentence is meaningful if it attributes some property to some object. A sentence S is meaningful if, for some object x and some property phi, S says that x has phi.1 It’s irrelevant whether it can be perceptually confirmed, let alone verified, that x has phi.

How could this theory be wrong? If a sentence attributes any property to any thing, it says something about something and is therefore meaningful. And if a sentence doesn’t attribute any property to anything, it doesn’t say anything about anything and is therefore meaningless.

**5.0 The picture theory of meaning**

One of the most interesting contentions put forth in the *Tractatus Logico-Philosophicus* (TLP) is the so-called “picture theory of meaning.” In the TLP, Wittgenstein says that sentences are “pictures” of the facts they describe.

What does he mean? Maybe he means that sentences are picture-*like* in that they, like pictures, represent facts. But in that case what Wittgenstein is saying is completely and utterly trivial.

Thus, so far as what Wittgenstein is saying has substance, it isn’t that sentences are *like* pictures of the facts they describe; and it must therefore be that they *are* such pictures.

But in that case, what Wittgenstein is saying is false. It is only relative to arbitrary conventions that “Smith punched Jones” describes the fact that Smith punched Jones. But it isn’t relative to such conventions that a film or painting of Smith punching Jones describes that fact.

To be sure, there is a non-conventional *component* to sentential representation. Let P be the proposition meant by the sentence:

(1) “Given that Socrates was a philosopher, it follows from the fact that Socrates was bald that there has been at least one bald philosopher.”

The fact that (1) means P is not itself a convention. It is a logical *consequence* of our semantic conventions (e.g., that “Socrates” refers to Socrates, etc.). But for that very reason, there is a conventional component to that fact. And since graphic resemblance is a *non*-conventional method of representation, it follows that, so far as (1)’s relation to the fact it describes is conventional, that relation is fundamentally *not* like the relation borne by a picture of an event to that event. Thus, the picture-theory is false if taken literally and it’s empty if taken non-literally.

But maybe there’s some way of interpreting that theory that we’ve overlooked. To see whether this is so, let’s consider Wittgenstein’s argument for it:

At first sight a sentence—one set out on the printed page, for example—does not seem to be a picture of the reality with which it is concerned. But neither do written notes seem at first sight to be a picture of a piece of music, nor our phonetic notation (the alphabet) to be a picture of our speech. At yet these sign-languages prove to be pictures, even in the ordinary sense, of what they represent[[78]](#endnote-78)79 . . . There is a general rule by means of which the musician can obtain the symphony from the score, and which makes it possible to derive the symphony from the groove on the gramophone record, and, using the first rule, to drive the score again. That is what constitutes the inner similarity between these things which seem to be constructed in such entirely different ways. And that rule is the law of projection which projects the symphony into the language of musical notation. It is the rule for translating this language into the language of gramophone records.

The idea seems to be that just as laws of projection coordinate the painting of the bowl of fruit with the bowl of fruit itself, so the ***semantic rules*** of a language coordinate its sentences with the realities they describe.[[79]](#endnote-79)80

But this analogy is a shallow one; and when it’s scrutinized, it becomes even more clear than before how *un*like pictures sentences are.

What if, because of some change in the environment, snow turned black? The English language would not for that reason be impaired. In fact, the English language would, without itself having to change, give us the resources to describe this change. We could describe it by saying “snow is black.” Thus, as far as the English language is concerned, snow can be any color. The semantic rules of English don’t say that snow *is* white. They say that, *if* snow is white, one can express that fact by saying “snow is white.” And those rules are to the effect that *if* snow is black, one can express *that* fact by saying “snow is black.” So the semantic rules of English assigns sentences not to the *fact* that snow is white—for as far those semantic rules know, it isn’t a fact that snow is white—but to the proposition that, when true, gives rise to that fact.[[80]](#endnote-80)81 Thus, sentences depict facts *by way of* having propositions for their meanings. But this isn’t how photographs work. A photograph doesn’t go through the corresponding proposition. It goes straight to the fact (when there is one). No picture goes through a proposition. Pictures, unlike sentences, go straight to the facts, if any there be, that they represent. This shows how fundamentally unlike pictures sentences are.[[81]](#endnote-81)82

A related point is that pictures have structures that are radically different from those of any sentences. Sentences are ***digital*** structures.[[82]](#endnote-82)83 They have a unique decomposition into a finite number of discrete parts. (“The cat is on the mat” decomposes into “cat,” “mat,” etc.) Pictures aren’t like this. A picture of a cat on the mat doesn’t have one, minimal unit of significance corresponding to the cat, another to the mat, etc. The part of the picture corresponding to the cat may also contain a part corresponding to the cat’s ear and to the cat’s leg, etc.

The fact that sentences, unlike graphic representations, are digital structures is a consequence of the fact that the former, unlike the latter, have a conventional component. The reason for this is a subtle one. But it’s worth stating, since it shows how deeply wrong the picture-theory is and since, in so doing, it reveals a lot about language.

Let D1 be some random photograph of a person smiling. D1 isn’t a symbol of a language. But that could easily change. For this to happen, some convention would have to arise whereby it had a fixed a meaning— whereby it meant, for example, that people are sometimes are happy, and the same thing *mutatis mutandis* happens in connection with each of several other photographs. So for example, there is some photograph D2 of a person who is crying, and some convention is created whereby D2 means that people are sometimes unhappy; and so on. Let L be the language defined by the totality of these conventions.

Even though D1 is an image, it isn’t functioning as an image so far it’s functioning as an expression of L. The fact that D1 is a picture of a smiling person may obviously make it easier for people to remember that, in L, D1 means that people are sometimes happy. But it won’t be *what it is* for D1 to bear that meaning, or any other, in L. The character “0” is an unfilled hole and can thus be taken as graphic representation of emptiness.

But so far as, “0” is such a representation, that isn’t *what it is* for it to denote the integer preceding the number one. The same point *mutatis mutandis* holds of D1.

Also, D1 *doesn’t* graphically represent the fact that people are sometimes happy; it graphically represents the tenuously related fact that, on some one occasion, some one individual was happy, along with various other specific facts about that person’s appearance that have nothing to do with anyone’s being happy. So isn’t by virtue of graphically representing the fact that people are sometimes happy that, when functioning as a sentence of L, D1 describes that fact.[[83]](#endnote-83)84

So far as D1 is a sentence of a language, what it actually picks out is irrelevant; the various nuances of the smiling gentleman’s face are irrelevant. In general, its internal structure is irrelevant. Considered as an expression of L, it *has* no internal structure. (It is what philosophers of language call a **semantic primitive.** A semantic primitive,” or primitive symbol,” is one that doesn’t consist of other symbols and that, so far as it is an expression of a language, thus has no internal structure.) For exactly similar reasons, each of the other photographs composing L is, when considered as an expression of L, devoid of internal structure and thus, in the most extreme way possible, *not* like a graphic representation.

We must make one more point before we can close the argument. Let N be a photograph of a bolt of lightning, and suppose that N is the L-translation of the English expression “it is not the case that.” So if S is the L-translation of “grass is green,” NS is the L-translation of “grass is not green.” (NS is formed by putting N to the left of S.) Even though NS consists of pictures, it is not itself a picture. Putting two pictures together isn’t one picture; it’s just two pictures that are next to each other. For exactly similar reasons, if conventions were created whereby the sentences of L could be ***conjoined, disjoined*[[84]](#endnote-84)85**, or otherwise combined, the resulting compound sentences would not be pictures.

Let us take stock. Not a single one of the simple symbols belonging to L is a graphic representation of the fact that it depicts, and not a single one of the complex symbols belonging to L is a graphic representation of the fact depicted by any one of its components. In general, to the extent that a given thing is functioning as a linguistic expression, it is not functioning as a picture. Things that happen to be pictures cannot function as pictures so far as they are functioning as linguistic expressions or, therefore, as sentences. Thus, Wittgenstein's contention that sentences are pictures of the facts they describe is the antithesis of the truth. In addition to showing that Wittgenstein’s picture-theory is false, this shows that *any* conventional assignment of meaning to *any* collection of symbols—any *language,* in other words—necessarily yields symbols that have a unique decomposition into discrete parts. This is obviously, almost tautologically, true of compound symbols; and it’s ***vacuously true*[[85]](#endnote-85)86** of non-compound symbols, since no such symbol has any internal structure at all.

**5.1 The picture theory of meaning (continued)**

It’s not entirely clear why Wittgenstein said that sentences are pictures. But it is clear that this contention of his is consistent with this empiricism.

Empiricism says that all knowledge is observation based. Thus, if you know it, you either (i) sense-perceived it or (ii) you inferred it from what you saw, provided that the inference rule you used is one that is known through sense-perception. (So far as knowledge is obtained with the help of inference rule whose legitimacy can’t be authenticated by sense-perception, some knowledge is *not* perception-based.)

Our sense-perceptions give us pictures. Not all sensory modalities give us *visual* pictures, of course. Hearing gives us auditory pictures, touch gives us tactile pictures, etc. But perceptual representation is pictorial representation. (In what follows, when I say “see,” I mean “see or hear or touch [etc.].”)

But much of what we know can’t be embodied in images of any kind. (In this context, I’ll use the word ‘image’ not just to still-images, but to moving pictures.) I know that:

(1) the moon is not made of cheese.

What would an image of this fact be? An image of a cheesy moon with a big X on it? No. The big X wouldn’t be an *image* at all. Like the word “not,” it would be a conventional sign of negation. Whereas a picture of a

cheesy moon would indeed resemble a cheesy moon, a big X doesn’t resemble the operation of negation. Nothing could physically resemble that operation, since it isn’t something that could possibly be seen or otherwise sense-perceived.

Also, a picture of a cheesy moon corresponds to a lot of different propositions.[[86]](#endnote-86)87Any such picture will also depict an object having a certain color, shape, etc. Since (1) doesn’t anything about the moon’s shape or color, it isn’t identical with such an image. No proposition is identical with *any* image, since any image will contain information not contained in the image.

Thus, there are at least some cases where one’s knowing of some fact doesn’t consist in there being an image in one’s mind of that fact. How is the strict empiricist to deal with this? First of all, it’s hard to see how sense-perception, which gives us nothing but one image after another, could apprise us of truths that are incapable of being expressed in a strictly imagistic form. For argument’s sake, let’s concede to the empiricist that it’s strictly through perception that I know that the Moon is made of XYZ. How are we to deal with my subsequent knowledge that the Moon is not made of cheese? Obviously that knowledge is *largely* based on my knowledge that it’s made of XYZ. But it can’t be *entirely* based on it. What my senses tell me, at most, is what the moon *is* made of, not what it isn’t made of. So *some* kind of non-perceptual knowledge is involved in my making the leap from *the moon is made of XYZ* to *the moon is not made of cheese.*

Here is a related, if not quite coincident, argument. Even if image-resistant facts (e.g., those expressed by negative statements) are learned in a strictly perceptual manner, the mental states that mediate our knowledge of them are not themselves images. The information borne by those mental states must be encoded in some non-iconic form. This means that, at some point, pictorial information was converted into non-pictorial information. But if our post-perceptual mental states are to be knowledge, that conversion process must be a legitimate one. In other words, it can’t, when given pictorial input x, yield some output y that is inconsistent with x. Moreover, we must *know* that the conversations being made are legitimate. For argument’s sake, suppose that I don’t *know* that, given my (let us assume) strictly perception-based knowledge that the moon is made of XYZ, it is *correct* to hold that the moon is not made of cheese. In that case, to the extent that my belief that it isn’t made of cheese is based on my knowledge that it’s made of XYZ, that belief isn’t knowledge. If, on the basis of testimony given by a source of whose reliability I have knowledge, I believe P, I don’t *know* that P. Uncorroborated testimony, though a helpful initial step on the road towards knowledge, is not itself enough for knowledge. For much the same reason, if I don’t know the rules that permit the derivation of non-perceptual beliefs from strictly perceptual ones, then, even if my post-perceptual beliefs are correct, they aren’t knowledge.

But there couldn’t possibly be any strictly perceptual way of knowing that those conversions were accurate. Those conversions, by supposition, turn pictures into non-pictures. So our knowledge of their existence, or (*a fortior*i) of their legitimacy, cannot itself be strictly pictorial. This is the real problem with empiricism. The rules that we use to make inferences *from* perceptual experience cannot *themselves* be learned strictly on the basis of sense-perception. This will be discussed at length in Chapters 12 and 13.

**5.2 The picture theory of meaning (continued)**

Interestingly, Wittgenstein made points at least vaguely like these in the TLP:

In order to be ale to represent logical form, we should have to be able to station ourselves with sentences outside logic, that is to say outside the world. Sentences cannot represent logical form: it is mirrored in them. What finds its reflection in language, language cannot represent. What expresses *itself* in language, *we* cannot express by means of language. Propositions *show* the logical form of reality. They display it.

Thus, if one proposition ‘fa’ shows that the object a occurs in its sense, two sentences ‘fa’ and ‘ga’ show that the same object is mentioned in both of them. If two sentences contradict one another, then their structure shows it; the same is true if one of them follows from the other. And so on. What *can* be shown, *cannot* be said.[[87]](#endnote-87)90

Wittgenstein seems to be saying that we cannot correctly describe the relationship holding between our words and the facts they describe. But, if correct, that point *itself* describes that relationship, calling into question its own coherence.[[88]](#endnote-88)91

In any case, contrary to what Wittgenstein says, we *can* identify the logical forms of our own utterances. To identify the logical form of a statement is simply to make it clear what it means. We can do this. We do it all the time. We do it whenever we put the meanings of words into words. There are *some* qualifications to this, as we’ll see in a moment, but none that redound to the credit of Wittgenstein’s point.

Wittgenstein’s assertion that “what *can* be shown, *cannot* be said” is obviously false. I tell you that I can do fifty push-ups. (I say “I can do fifty push-ups.”) You don’t believe me. So I show you that I can do fifty push-ups. (I do fifty push-ups in front of you.) And, as we just saw, that principle holds no less in connection with logical forms than in connection with a person’s ability to do push-ups.

Echoing what we said earlier, although it isn’t clear why Wittgenstein made these claims or what he meant by them, it is clear that they’re consistent with his view that sentences are pictures of reality. A *picture* cannot picture itself. If P is a picture of a seagull, P can’t contain a picture of itself, for the simple reason that nothing can be a proper part of itself. Of course, P might be a picture of a big seagull *and also* of some other, much littler, but otherwise identical seagull. But the big-seagull part of the picture isn’t identical with the little-seagull part. The big part contains *two* seagull-images; the little part only contains one.

So i*f* sentences were pictures, then a given sentence S1 couldn’t be a picture of itself. But it doesn’t follow that some other picture S2 couldn’t be a picture of S1. Nor, therefore, does Wittgenstein’s much stronger claim that *nothing*—no picture, no set of pictures, no sentence—could depict or otherwise represent the rules by which true statements are paired off with the facts they described.

Wittgenstein’s claim that we cannot state the logical forms of sentences, which collapses into the brazenly false claim that we can never say what our words mean, has two roots. One of them is his just-discussed belief that sentences are pictures of the facts they describe. The other is his not yet discussed belief that, if it’s assumed that we *can* say what our words mean, we have no way of dealing with paradoxes like the following. If somebody says:

(i) “what I’m saying is false,”

what that person is saying is true if it’s false and false if it’s true. Wittgenstein was keenly interested in this paradox during his pre-Tractarian years.[[89]](#endnote-89)92His reaction to it, it appears, was to hold that *any* attempt to articulate semantic rules would self-refer in the same the same paradox-engendering way as (i) and, therefore, that such rules cannot possibly be put into words.[[90]](#endnote-90)93

But this is not good reasoning. When I say, while pointing at the person exiting the limo, “that’s Mick Jagger,” I’m stating a semantic rule. There is some individual x such that I am saying (correctly, we may suppose) that it’s a semantic rule that “Mick Jagger” refers to x. The semantic rule I’m expressing doesn’t self-refer and isn’t otherwise defective.

As we’ll see in a moment, there are reasons to think that *some* semantic rules cannot be put into words, and Wittgenstein seems to have had at least a vague knowledge of some of them. But given only that *some* semantic rules can be put into words, it obviously doesn’t follow, contrary to what Wittgenstein seems to have inferred, that *no* semantic rules can be put into words.

Having spent pages dwelling on the shortcomings of the *Tractatus,* let’s end this section on a sunnier and more constructive note.

It is often said that truth is indefinable. Many people say this without meaning anything by it. Setting such people aside, those who say this seem to mean either (a) that it cannot be said what it is for a proposition to be true or (b) that no language can state all of the semantic rules that belong to it. (a) is false. (See Chapter 3.) But (b) is true.

(b) isn’t the absurd claim that no language can state *any* of its own semantic rules. Every time one uses an English sentence to define an English expression, one is expressing a semantic rule of English in English. But neither the English language, nor any other, can state *all* of its own semantic rules. Here’s why.

Given any meaningful expressions, there is a semantic rule r saying what s’s meaning is. (This is trivially true. A meaningful expression is one that has a meaning and is therefore one such that some true proposition identifies that meaning; and any proposition that, like r, says what an expression means is *ipso facto* a semantic rule.) So, for example, supposing that x is Dick Cheney, there is a semantic rule of English to the effect that “Dick Cheney” refers to x. That rule is not *itself* a sentence. But it can obviously be expressed by a sentence (as we just saw). In general, semantic rules, though often capable of being expressed by sentences, are not themselves sentences. In light of this fact, suppose for argument’s sake that, for each semantic rule of English, there is a sentence of English that expresses that rule. Let K be the class containing all and only sentences of English that correctly express actual semantic rules of English. Let SRE be the conjunction of all of K’s members. SRE is a true and therefore meaningful sentence of English. SRE is also a member of K. After all, K contains every sentence that correctly says what is meant by at least one expression of English, and SRE obviously satisfies that requirement. But given that SRE is also a conjunction consisting of all of K’s members, it follows that SRE is one of its own conjuncts. No conjunction can be one of its conjuncts. (The conjunction “snow is white and snow is white” is not one of its own conjuncts, since that sentence is a conjunction, whereas “snow is white” is not.) We’re forced to reject this obvious truth *if* we grant the supposition that the English language can express each of its own semantic rules. Therefore, the English language cannot state all of its own semantic rules. Given any language L, what we just said about English is true of L. Thus, no language can express all of its own semantic rules.[[91]](#endnote-91)94

**6.0 (ii) revisited: formal truth** ≠ **analytic truth**

One of the main contentions of the TLP is that all ***entailment*** is *formal* entailment. One statement *entails* another if, supposing the first is true, the second couldn’t possibly be false. So “Smith is a triangle” entails “Smith has more than one side.” One statement, S1, ***formally*** entails another sentence, S2, if the statement “if S1, then S2” is a ***formal truth.*** A statement is a formal truth if every statement having the same form as it is true. Thus,

(1) “If Smith is in the barn, then it is not the case that it is not the case Smith is barn”

is a formal truth, since every statement of the form

(2) “if P, then it is not the case that it is not the case that P”

is true.

(1) is also an example of a formal entailment. It’s a formal entailment since it’s a formal truth that is also an entailment. (It’s an entailment since it’s to the effect that that one statement (*Smith is in the barn*) entails another (*it is not the case that it is not the case that Smith is in the barn*).

In the TLP, Wittgenstein asserted that all entailments are of this kind. He was aware that there are apparent counterexamples to this. For example:

(4) “Brown is a bachelor”

entails that

(5) “Brown is unmarried.”

But

(6) “if Brown is a bachelor, then Brown is unmarried”

isn’t formally true, since it has the same form as

(7) “if Brown is a bachelor, then Brown is a cupcake”

which isn’t true at all.

Wittgenstein deals with this by saying, very reasonably, that (4) is synonymous with:

(4F) “Brown is unmarried and Brown is an adult and is male.”

Unlike (4), (4F) *does* formally entail (5). According to Wittgenstein, all apparent counterexamples to his thesis that all entailment is formal entailment can be dealt with similarly.

But the method used in connection with this particular counterexample fails in connection with others. The sentence:

(8) “Brown is a circle”

entails

(9) “Brown is a two-dimensional figure.”

(8) doesn’t *formally* entail (9). Wittgenstein must say that (8) is synonymous with something that *does* formally entail (9). If there is *any* sentence that is synonymous with (8) that formally entails (9), it’s:

(10) “Brown is a closed, planar, two-dimensional figure of uniform curvature.”

(10) does indeed formally entail (9). But (10) isn’t synonymous with (8). That’s why:

(11) “Brown is a circle iff Brown is a circle”

is trivial, and says nothing, whereas

(12) “Brown is a circle iff Brown is a closed, planar, two-dimensional figure of uniform curvature”

is non-trivial.

(12) doesn’t say anything about the *spatiotemporal* world. (12) is logically true; its truth is guaranteed by the structures of the concepts composing it. Unlike (11), (12) isn’t a tautology. Therefore, it’s a non-tautologous, non-empirical truth. Thus, there are non-formal entailments, and this entails that the Tractarian conception criterion of meaningfulness advocated false. (“Tractarian” is the adjective form of “the *Tractatus Logic-Philosophicus*.”)

**7.0 Why the concept of a logically perfect language is an incoherent one (This section is hard and should be skipped on a first reading.)**

Let’s say that a sentence is ***perspicuous*** iff its logical and grammatical forms coincide; and let’s say that a language is ***logically perfect*** iff every sentence belonging to it is perspicuous.

Many non-perspicuous sentences belong to any given natural language (e.g., English, Swedish). One of Wittgenstein’s objectives in the TLP is to identify the conditions that a language must meet if it is to

be logically perfect. Wittgenstein takes it for granted that the concept of such a language is a coherent one. Influenced by the TLP, many early analytic philosophers longed for the day when logically perfect languages would replace natural languages.[[92]](#endnote-92)95

In any case, the concept of a logically perfect language is not a coherent one. It isn’t possible for *everything* about a sentence’s meaning to be reflected in its grammar. And if *per impossibile* there did exist a logically perfect language, it would be expressively inferior to English, Arabic, and every other natural language. In other words, there would be much that couldn’t be said in it that could be said in any natural language.

More precisely, for each analytic truth capable of being expressed by a logically perfect language, there would be infinitely many that it could not express *and* that English or Spanish or any other natural language *could* express. At the same time, there would be no truth that could be expressed in a logically perfectly language that couldn’t also be expressed in a logically imperfect language, such as English. Let us now discuss why this is so.

A sentence belonging to a logically perfect language is analytically true iff it is formally true. *Why is this?* A sentence is perspicuous only to the extent that its grammatical form makes it clear what it says and, therefore, makes it clear what it entails and what entails it. Bearing this in mind, let S be some arbitrary sentence. To the extent that there are false sentences, or true but non-analytic sentences, that have the same surface-structure as S, S’s grammatical and logical forms don’t coalesce and, consequently, S isn’t perspicuous. So an analytically true sentence is perspicuous only if all other sentences having the same form are true. A sentence is formally true if, and only if, any sentence having the same form is true. Thus, a sentence is perspicuous only if formally true. Therefore, a sentence belonging to a logically perfect language is analytic only if formally true.[[93]](#endnote-93)96

A consequence is that, for each analytic truth that a logically perfect language can express, there are infinitely many that it cannot express. Given any object x and any property phi, the sentence

(S1) ‹if x has phi, then it is not the case that x does not have phi›

is perspicuous, the reason being that nothing having the same surface structure is false. But the superficially similar sentence

(S2) “given any object x and any property phi*,* x has phi, then x does not have phi”

is *not* perspicuous, since it has the same surface structure as:

(S3) “given no object x and no property phi*,* if x has phi, then x does not have phi,”

which is false. Formally true sentences are instances of informally true universal generalizations. So no sentence capable of expressing such generalizations is logically perfect.

This point has important and often overlooked consequences. Making a ***valid*** deductive inference involves recognizing an entailment. Your deductively inferring Q from P involves your recognizing that P entails Q. The only way to know that some formal entailment is valid is to know that some informal entailment is valid. You know that:

(S4) “Jerry is in Richmond,”

entails that

(S5) “it’s not the case Jerry is not in Richmond”

And that’s why, if you accept S4, you also accept S5.

But how do you know that S4 entails S5? Is it on the basis of your knowledge that all instances of S1 are true? No. How could you possibly know that all of S1’ s instances were true unless you could recognize the

validity of specific inferences that it licenses (such as the inference from S4 to S5)? If you couldn’t recognize that S4 entailed S5, then you obviously wouldn’t have any idea why all of S1’s instances were correct.

This is not, at least not merely, a psychological point. It’s a psychological corollary of an epistemological point, which, in its turn, is a corollary of a logical point. The reason why every instance of S1 is true—the reason, in other words, why S2 is true—is that and each of infinitely many specific inferences, of which the inference from S4 entails S5 is but a single instance, is valid. There are, quite literally, infinitely many informally valid inferences for each formally valid one. So Wittgenstein’s allegation that all entailments are formal entailment is not feasible.

**7.1 Hempel on the limits of strict empiricism**

Carl Hempel (1905–1997) provided the following rigorous proof of the falsity of strict empiricism[[94]](#endnote-94)97:

(HA[[95]](#endnote-95)98) If x’s length is one unit, and y’s length is √2 units, then there is no length L such that L goes an integral number of times into both x’s length and y’s length.

Measurement is comparison with respect to some standard. To compare x’s length with y’s—in other words, to establish their comparative lengths—it is necessary to find some third body z that is taken as a standard[[96]](#endnote-96)99; and the relative lengths of x and y are determined by finding out how many z-length segments each of x and y can be divided into. (If one object can be divided into exactly twice as many z-length segments as some other, then the first is twice as long as the second.) Supposing that x’s length is one unit and y’s length is √2 units, it follows that there is *no* body z such that both x and y can be divided, without remainder, into z-length segments.[[97]](#endnote-97)100It follows that, if an object’s length is given by an irrational number, that fact cannot be known directly on the basis of measurement. It therefore follows that there is no strictly observation-based way to know that y’s length equals x’s multiplied by √2. In general, for any two objects x and y, there is no strictly observation-based way of establishing that x’s length (or mass, etc.) is *incommensurable* with y’s. (Two magnitudes M1 and M2 are incommensurable if there is no magnitude M3 that goes an integral number of times into both M1 and M2.)

The branch of mathematics known as “calculus” is integral to modern physics. Calculus is the study of continuously changing quantities. In order to describe physical phenomena in a way that makes it possible to use the powerful techniques of the calculus to describe them, it must be assumed that they change continuously and, therefore, that the degree to which a given phenomenon has a given property may sometimes be given by an irrational number.[[98]](#endnote-98)101Thus, it must be assumed that, at certain junctures, the velocities, lengths, masses, etc., of objects are sometimes given by irrational numbers. But there cannot, as we’ve seen, be strictly observational grounds for believing that a given object‘s length is √2 meters (or that its mass is √2 lbs, etc.).[[99]](#endnote-99)102Since the calculus can’t be applied to observable phenomena unless it’s assumed that things’ weights, velocities, etc., can at least sometimes assume values given by irrational numbers, it follows that modern physics integrally depends on an assumption for which there cannot be possibly a strictly observational basis. This means that strict empiricism is inconsistent with the obvious fact that modern physics is a source of knowledge.

**8.0 The sub-disciplines composing philosophy**

The main branches of analytic philosophy are: the philosophy of mind, the philosophy of language, the theory of knowledge (also known as “epistemology”), philosophical logic, metaphysics, the philosophy of science, ethics, political philosophy, legal philosophy, the philosophy of religion, and formal logic.

It should be kept in mind that these sub-disciplines overlap a great deal. So, for example, the question “do we think in words?” belongs to the philosophy of mind *and* to the philosophy of language.

**8.1 The philosophy of mind**

This discipline studies the concepts in terms of which the mind is to be understood. Among the questions it tries to answer are:

Must one know a language in order to think? Or, on the contrary, is the ability to think a prerequisite to learning and operating with a language?

Given that knowing a language seems to enhance some kinds of thinking, how does it do so?

What are beliefs, and what is the difference between believing that Smith is tall and wondering whether he is tall?

How is perception related to thought?

Can perceptual content (i.e., what our eyes, ears, etc., tell us) be put into words? Or is there a fundamental difference between the kind of information that our sense-perceptions bear, on the one hand, and the kind of information that can be encoded in sentences, on the other?

To what extent is self-knowledge possible? What factors limit our ability to know ourselves? How is mind related to brain? Are they one? If not, what is the relationship between the two? Can there be unconscious mental activity?

**8.2 The philosophy of language**

This discipline studies the nature of linguistic meaning. Among the questions it tries to answer are:

What does it mean to say that “Smith” ***refers to*** Smith? What, in general, does it mean to say of an expression E that it picks out some object O?

How do the meanings of a sentence’s parts relate to the meaning of the sentence as a whole?

Do expressions like “some person,” “all people,” and “no people” function in the same way as proper names (e.g., “Smith,” “Jones”)—that is, do they pick out objects? Or do they function in some other way? If so, what is that other way?

To what extent can the nature of linguistic meaning in general be understood in terms of the relationship that proper names bear to their referents (the things they refer to)?

How is it that statements about non-existent things can be meaningful?

How is the meaning of a sentence related to the thoughts of those who utter that sentence? Do the thought and the meaning coincide? Or is the relationship more indirect? If so, what exactly is that relationship?

How well does the grammatical structure of a sentence reveal what it actually says? Does grammar distort meaning or, on the contrary, is grammar a good guide to ***logical form***?

Are the ***semantic rules*** of a language (e.g., the rule that, in English, “snow” refers to a certain crystalline substance) known to speakers of that language? Or are such rules merely idealized descriptions of the behavior of those speakers?

Assuming, as some authors do, that there is an innately known language-like code in which we think, to what extent does that code resemble the languages (e.g., English, Spanish) that we *learn?*

How “transparent” is meaning? To what extent do users of a language know what sentences of that language mean?

What does it say of a sentence S that its *literal meaning* is P? What exactly is “literal” meaning? How is it different from communicated meaning? Is literal meaning merely an idealized description of communicated meaning, or is it something else entirely?

**8.3 Epistemology**

This discipline studies the nature and extent of knowledge. Among the questions it tries to answer are:

What is knowledge? What separates those beliefs that are knowledge from those that are not?

What can be known and what cannot be know? (Can it be known what cannot be known? Or is it incoherent to give an affirmative answer to this question?)

Can we know about the future, the past, the possible but not actual, the impossible?

Can we know about the external world, or is knowledge limited to our own mental states? Can there be knowledge of things that are not in space or time (e.g., numbers) and, if so, how?

Are there any self-evident or self-justifying beliefs? Or must all justified beliefs be justified by beliefs other than themselves?

What is the structure of the *totality* of our knowledge? Are there some pieces of knowledge from which all the rest are derived or are all pieces of knowledge interdependent?

Is there a fundamental difference between knowledge of spatiotemporal fact (e.g., knowledge that there is a dog over there) and knowledge of purely conceptual truths (e.g., that there are laws only where there is government)? Or is the one kind of knowledge to be reduced to, or modeled on, the other?

**8.4 Philosophical logic**

This discipline studies *bearing-relations* holding among sentences and propositions (sentence-meanings). Among the questions it tries to answer are:

What is it for one statement to ***entail*** another? (P “entails” Q if there is no way that Q can be false if P is true.) Are there different kinds of entailment? If so, are some more central to reasoning than others?

Are inferences concerning the non-existent (e.g., “if Zeus is tall, then at least one god is tall”) to be modeled on inferences concerning the existent (e.g. , “if Bush is tall, then at least one president is tall”)? Are the same principles involved? Or is the non-existent logically *sui generis?*

To what extent can reasoning be “mechanized”? In other words, to what extent is it possible to produce rules that can be applied without any thought that will do the work of a rational being?

How are statements about what might have been, but is not, to be understood? Are they similar, logically, to statements about what is? Or do they have an altogether different logical form?

Are all statements either true or false? Or are some “indeterminate”—that is, is there a “gray zone”? And are there “degrees” of truth?

**8.5 Metaphysics**

This discipline studies the nature of possibility and necessity, of causal relations between objects. It also studies the nature of identity and the conditions that something must meet in order to exist. Among the questions it tries to answer are:

Under what circumstances are two distinct objects (e.g., my heart and my liver) both parts of some *one* thing?

What is it for an inanimate object to endure in time?

What is it for an animate object (e.g., a person) to endure in time?

Is there a sense in which fictional objects (e.g., Fred Flintstone) exist? Or is there no need to assume the existence of such things to account for the facts of experience?

What is it for something to be possible but not actual? What is it for something to be actual not necessary? What is it for something to be necessary?

Are necessity and possibility properties of objects (e.g., rocks, trees, people) or of statements? Are there things that are not in space or time?

Must things have causal properties in order to exist?

**8.6 The philosophy of science**

This discipline studies the logical structure of scientific endeavor and of its results. Among the questions it tries to answer are:

What is the difference between statements that are scientific and those that are not? What are explanations? What is it to explain an event?

Is there a sharp distinction between theoretical and non-theoretical claims? Or, as some claim, are all statements (even basic ones; e.g., “that’s a rock”) “theory-infected”?

Given two rival theories, how is it to be determined which, if either, is the more accurate one? And supposing that one of them is the more accurate one, does it follow that it is the *better* one? In other words, is accuracy the only virtue a theory can have or, if not the only such virtue, then the most important one? Are theories to be evaluated (judged correct and, what may or may not be different, judged good) entirely in terms of their degree of agreement with the experimental data? Or are other factors (e.g., simplicity, comprehensiveness) involved?

What is the nature of measurement? Are there any reasons, other than reasons of convenience, for taking certain objects or events as standards? To use Hempel’s (1952) example, is one wrong to take the Dalai Lama’s heartbeat as a periodic process, or is it simply inconvenient to do so?

What is the nature of probability? What does it mean to say that there is a 50% chance that the coin will come up heads? Is probability just “a measure of ignorance,” as Laplace (1749–1827) said? Or is it an objective fact about the world?

Do theoretical entities (e.g., protons, unconscious urges) exist in the same way as non-theoretical entities? Or are theoretical entities merely devices that we use to make sense of non-theoretical entities? Are statements about “protons” just abbreviated statements about meter readings and other macroscopic phenomena?

Is there a fundamental difference between explanations in the physical sciences and explanation in the psychological sciences?

Under what circumstances is a hypothesis (a tentative theory) to be rejected? Is a single disconfirmatory result enough? If not, what else is needed?

Must all theories be “deterministic”? (In other words, must they posit a rigid causal order?) (Einstein said “yes.” Peirce (1839–1914) said “no.”) Others, e.g., Ernest Nagel (1901–1985), say that the question is ill-formed, the reason being that whether a system is deterministic or not depends on how it is described. Determinism is a logical property of statements, in Nagel’s view, not of the events they describe.[[100]](#endnote-100)103A consequence is that a given domain may be deterministic with respect to one method of describing it, but indeterministic with respect to some other method of describing it. Thus, the sub-atomic realm, Nagel says, is indeterministic with respect to the concepts in terms of which we describe the macroscopic realm; but it doesn't follow, Nagel plausibly alleges, that it is indeterministic *tout court*.)

Should science attempt to state how the world actually is? (Karl Popper says “yes.”) Is that even possible? (Kant says “no.”) Or should science confine itself to producing theories that are *consistent* with the data, while leaving it open whether those ***models*** are actually correct or not? (Bas van Fraassen says “yes.”[[101]](#endnote-101)104) (A “model” is a description of a hypothetical structure that, *if* existent, *would* account for the relevant data.)

**8.7 Ethics**

This discipline studies the nature of good and bad, right and wrong. Among the questions it tries to answer are:

What is it for an act to be good and what is it for an act to be bad?

Are there absolute standards of goodness and badness, or do such standards vary from culture to culture?

Are there in fact such things as right and wrong?

Are any of our beliefs about the rightness and wrongness of things correct? Or are all our ethical beliefs illusions of some kind?

How are ethical statements (e.g., “killing is wrong”) related to non-ethical, purely “descriptive” statements (e.g., “killing tends to undermine social order”)?

To what extent can one have ethical obligations towards oneself?

Does one have ethical obligations towards others, or should one be concerned only for oneself? To what extent, if any, is it in one’s interest to act morally?

**8.8 Political philosophy**

This discipline studies the nature of law and government. It tries to identify the conditions under which laws and other political institutions are legitimate. Among the questions it tries to answer are:

What is a law?

What is the difference between a law and, for example, a gunman’s threat?

What is a government? What is the difference between a government and, for example, the Mafia? How are legal rights related to ethical rights?

Can there be legal systems that are entirely evil, or must something embody at least a minimum of morality to qualify as a legal system?

Under what circumstances, if any, is one ethically entitled to break the law?

Under what circumstances, if any, does a government have the right to thwart the interests of its subjects?

What is the most just form of government?

Which kinds of freedoms ought a government to protect?

**8.9 The philosophy of religion**

This discipline studies the nature and existence of God and the conditions under which religious belief is justified. Among the questions it tries to answer are:

If there is a God, why do bad things happen?

Given that God, being invulnerable, cannot know what it is like to be vulnerable, how can God know everything?

If God knows everything, including what we will do, how can we have free will? If God is responsible for everything, how we can be justly punished for what we do?

Does God have a gender? Does it make sense to say that God is a male as opposed to a female? Is there a God? If so, how is that to be established?

Is religious knowledge acquired in the same way as non-religious knowledge, or are different cognitive vehicles involved? And, once acquired, is religious knowledge (supposing such a thing to exist) to be *justified* in the same way as non-religious knowledge, or are different standards involved?

What is the relationship between religion and morality? Can there be valid moral codes in a Godless world?

Can a genuinely religious person believe that God herself is bound by ethical principles? Or, in holding that God is so bound, is one undermining God’s authority and, therefore, abjuring a religious outlook?

Is acceptance of some kind of religion necessary for a meaningful life?

If there is an after-life of never-ending bliss, wouldn’t we get bored? Does fulfillment involve adversity? Isn’t struggle what gives life meaning?

**8.10 Formal logic (a.k.a. mathematical logic, a.k.a. symbolic logic)**

(What follows is very compressed and should probably be skipped on a first reading.) This discipline studies **formal truth.** The concept of “formal truth” is discussed in Chapter 7 and a precise definition of it is given in Chapter 18. But here’s the basic idea.

S2 formally follows from S1 if the sentence ‹if S1, then S2› is formally true. A sentence is formally true if every sentence of the same ***form*** is true. A sentence has the same form as a given sentence if there is some ***open-sentence*** of which both sentences are instances. An open sentence is a sentence-like expression that contains a ***free variable*** and is thus neither true nor false. Synonyms of “open-sentence” are “statement-form” and “sentence-schema.”[[102]](#endnote-102)105An open-sentence is formed by taking an actual sentence and replacing one of the expressions in it with a variable. “Two is even” is an actual sentence. If the “two” is replaced with a variable, the result is ‹x is even›, which is an open sentence.

An ***instance*** of a sentence-form is what results when the variables in that sentence-form are replaced with constants. Thus, “two is even” and “five is even” are instances of ‹x is even.› To ***interpret*** an open-sentence is to replace the variables in it with constants, and an ***interpretation*** of an open-sentence is an assignment of constants to the variables in it. Consider the open-sentence ‹x has property phi.› An interpretation of that open-sentence is simply a proposal to the effect that the variables in it be replaced with constants. Thus, if I propose that the expressions “two” and “even” replace the first and second variables in that open-sentence, I am proposing an interpretation of it. Since the corresponding sentence (“two is even”) is correct, that interpretation ***validates*** that open-sentence. In general, an interpretation of an open-sentence validates it if the corresponding sentence is correct.

Not every interpretation of ‹x has property phi› validates it. For example, the interpretation of it that generates “two is odd” fails to do so.

If a given open-sentence is validated by every interpretation of it, then each instance of it is formally correct. This coincides with our earlier definition of “formally correct.” If every interpretation of a given open-sentence is correct, that open-sentence is said to be “true under all its interpretations.” It must be kept in mind that this is just a figure of speech, since open-sentences are not, in fact, true.

Statement-forms fall into three categories: (i) those whose instances are sometimes, but not always, correct (e.g., ‹x is even›); (ii) those whose instances are always false (e.g., ‹x is even but not divisible by two ›): and (iii) those whose instances are always correct (e.g., ‹x is identical with x›. ) An open-sentence falls into (i), (ii), or (iii) depending on whether it is (i\*) true under some, but not all, of its interpretations; (ii\*) true under none of its interpretations; or (iii\*) true under all of its interpretations.

Formal logic tries to ***formalize informal analytic truth,*** so far as that’s possible to do so, and to say when it isn’t possible, so far as it isn’t. An analytic truth is one whose negation is incoherent, and an analytic truth is informal if it has the same form as some false statement. Thus, “triangles have three sides” is analytic, since “triangles don’t have three sides is incoherent,” and it’s informal, since it has the same form as “squares have three sides.” To formalize an informal analytic truth T is to identify an open-sentence S such that every instance of S is true and such that one of S’s instances is equivalent with T.

Consider the sentence:

(1) Bill is self-identical.

(1) is an analytic truth, since its negation is

(2) Bill is not self-identical,

which is incoherent.

But (1) isn’t formally correct, since it has the same form as:

(3) Bill is green,

which is false, given that Bill is a non-green person. (1) and (3) are both instances of the form sentence-form:

(4) Bill has phi,

Since some of (4)’s instances are false, (1), though analytically true, is not formally so. But (1) is *equivalent* with a formal truth, namely:

(5) Bill is identical with Bill.

(5) is an instance of the form:

(6) x is identical with x.

The reason that (5) is formally true is that it’s an instance of (6) and no instances of (6) are false. We just formalized an informal analytic truth and, therefore, did on a very small scale what mathematical logicians do on a very big scale.

What we believe to be bona fide statements sometimes turn out to be statement-forms; and statement-forms that we believe to have only true instances sometimes turn out to have false ones. [[103]](#endnote-103)106Both of these deeply important facts first became apparent when, in the middle of the 19th century, Euclid’s ***axiomatization*** of geometry was re-examined. Euclid showed that a great many geometrical truths follow from a small set of assumptions. These assumptions were:

(1) Any two points can be connected by a straight line-segment.

(2) Any line-segment is a part of some line.

(3) Given any point and given any line-segment starting from that point, there is a circle whose radius is the length of that line-segment.

(4) All right-angles are equal to each other.

(5) Given a line L1 and a point P not on L1, there is exactly one line L2 that passes through P and doesn’t intersect with L1

(5) is known as the “parallel postulate.”

We’ll use the expression “(1)-(5)” to refer to the *conjunction* of (1) and (2) and (3), etc. Thus, (1)-(5) is a *single* open-sentence, and “(1)-(5)” is thus a singular, not a plural, noun. One would think that (1)-(5) is correct. But this turned out not to be so. It turned out that (1)-(5) is a statement-*form,* not a statement proper, and that (1)-(5) therefore isn’t true *or* false. It also turned out that some of its instances are false. Let us now describe one such instance.

Let S be some sphere. Given an arbitrary point on S’s surface, there is a path leading from that point back to that same point that cuts S into two symmetrical halves. If by a “line” we mean such a path, and we make the corresponding changes to the otherwise unchanged meanings of (1)-(4), the propositions thereby assigned to (1)-(4) are true, but the proposition assigned to (5) is false. For, if “space” and “line” are so defined, a line has zero parallels, as opposed to one.

According to many, this shows that the parallel postulate isn’t true of every possible space. This isn’t what it shows. The parallel postulate isn’t true or false of anything. It’s a statement-form, not a statement, and statement-forms aren’t true or false of anything. The right conclusion to draw is that there are possible spaces that are (partly) described by sentences that are negations of *instances* of the parallel postulate.

If “space” and “line” are defined in the conventional, Euclidean way, the sum of the interior angles of a triangle is 180. But if “space” and “line” are defined in the way just proposed, that sum may be anything greater than 180° and less than 360°. The larger the triangle, the greater the sum.

In (1)-(5), the words “line” and ‘space’ are functioning as variables, not as constants. This is an immediate consequence of the just-seen fact that, depending on what specific meanings are assigned to those words, (1)-(5) may come out either true or false. “But a ‘space’ isn’t the surface of a sphere,” one might protest. “And a ‘line’ isn’t a pathway of the sort just described. So all you’ve shown is that by *mis*interpreting (1)-(5), you can generate some interesting results. But that means that you haven’t really shown anything.” Not true. In saying that “space” and “line” don’t have these non-Euclidean meanings, one is making assumptions as to the nature of space that it is the very purpose of (1)-(5) to *establish.* In presupposing that ‹x is a space› entails that x isn’t the surface of a sphere, one is in effect presupposing that triangles have interior angles adding up to 180°—one is, indeed, presupposing a great many of the principles that (1)-(5) are supposed to establish. So one cannot, without invalidating one’s attempt to ground geometry in (1)-(5), assume that “line” and “space” are not to be defined in this way.

In (1)-(5), the words “line” and “space” are functioning as variables, not as constants. We’ve seen that (1)-(5) isn’t true for all values of those variables. That is, some instances of that open-sentence are false. That is, that open-sentence isn’t true under all its interpretations. Formal logicians aspire to identify open-sentences that *are* true under all their interpretations, since it is only to the extent that they can do this that they can formalize analytic truth, which is their main objective. In the course of this search, they inevitably come across many open-sentences, such as (1)-(5), that they had hoped were true under all their interpretations but turned out not to be. Given an open-sentence S of this kind, they try to say, as precisely as possible, what it is that all those interpretations of S that validate it have in common with one another that they *don’t* have in common with any interpretation that fails to validate S. In other words, they try to come up with a *general* characterization of “truth under S.”

There are some classes of true statements that one would *expect* to be formalizable but turn out not to be. The class of arithmetical statements (“1 + 2 = 3,” “2 × 9 = 18,” etc.) is an example. In other words, arithmetical truth cannot be formalized.

First of all, arithmetical statements, as they are ordinarily expressed, are not formally true. “2 + 2 = 4” has the same form as “2 + 2 = 5.” They both have the form “x + x = y.” Since “2 + 2 = 5” is false, and has the same form as “2 + 2 = 4,” the latter, though true, isn’t formally so.

Formalizing arithmetic would involve finding some open-sentence S such that, for some interpretation of S, every true arithmetical statement is a formal consequence of that interpretation and such that no false arithmetical statement is such a consequence.

It turned out that this is not possible. This means that any formal characterization of arithmetic is either ***inconsistent*** (i.e., it entails a contradiction), or ***incomplete*** *(i.e., there is some arithmetical truth that is not a consequence of it).* (The reasons for this are outlined in Chapter 7.) Given a body of truths that might appear to be capable of being formalized, mathematical logicians wish prove whether or not it is so; and, supposing that it can be formalized, they wish to find a model for it.

**ENDNOTES**

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Exercises**

Questions 1–6 are to be answered on the basis of the following passage, which expresses the author’s actual views:

(PW)[[104]](#endnote-104)1According to many contemporary philosophers, counterfactual statements (e.g., “if Smith had fallen off the building, he would have broken his leg,” “if McCain had won the election, Palin would now be the Vice President”) make statements about other universes. According to this view, the meaning of:

(K) JFK would have been reelected in 1964 if he hadn’t been assassinated

is

(K#) there is a possible world W where JKF was assassinated but where everything (prior to the date of this would-be assassination) is otherwise as much like our world as that fact permits; in W, JFK was reelected in 1964.

And, according to this view:

(S) If Smith, who is six-feet tall, were half his actual height, then he’d be three-feet tall

means

(S#) Given a world where Smith is half his current height, but is otherwise as much like our world as that fact permits, Smith is three-feet tall.

This view was held by the late David Lewis (1941–2001).[[105]](#endnote-105)2And it’s held, albeit in a veiled form, by contemporaries such as Boris Kment and Robert Stalnaker.[[106]](#endnote-106)3

I find this analysis completely preposterous. We don’t know anything about other universes, let alone whether Smith and Kennedy exist in them or, therefore, what their situations there are. Anything we do know about such universes is parasitic on our knowledge of counterfactual truths like K and S. (If *per impossibile* we were able to travel to other universes and we found that, in them, Smith was four-feet tall and Kennedy wasn’t reelected, we wouldn’t reevaluate K and S; we’d assume that we weren’t visiting worlds that were relevant to them, confirming our point that our knowledge of counterfactuals precedes our knowledge of other worlds.)

The right analysis of counterfactuals, I would suggest, is to see them as grammatical variants of garden variety causal or logical statements. Thus, K and S mean, respectively:

(K\*) Kennedy’s assassination prevented an otherwise reelection bound Kennedy from being reelected

and

(S\*) Anything that is half the height of something that is six-feet tall is three-feet tall.

1. True or false? It’s clear that a logical positivist would be sympathetic to the view that I attack in PW, even though it’s unclear whether he’d agree with all the specifics of that view.

2. True or false? A logical positivist would regard S\* as holding in virtue of linguistic conventions, as opposed to non-empirical, non-spatiotemporal facts.

3. True or false? A logical positivist would regard S\* as not being a tautology.

4. True or false? It isn’t clear whether or not a logical positivist would regard K# as meaningful.

5. True or false? A logical positivist would regard S# as meaningless.

6. True or false? It’s clear that a logical positivist would regard S\* as meaningful but trivial.

7. True or false? One problem with falsificationism is that some statements of the form “some x’s are y’s” are meaningful but inherently unfalsifiable.

8. True or false? One problem with falsificationism is that some statements of the form “some x’s are y’s” are meaningful but inherently verifiable.

9. True or false? The statement “Smith is a penguin” entails “Smith is not a person.”

10. True or false? The statement “Smith is a person” entails “Smith is literate.”

11. True or false? The statement “Smith is a monarch” entails “Smith is literate.”

12. True or false? The statement “Smith is a supreme court justice” entails “Smith is not a complete moron.”

13. Produce a sentence whose logical form diverges from its grammatical form, and then identify its logical form.

14. Identify a philosophical puzzle that has nothing to do with language.

15. Identify a puzzle that should be solved through statement-analysis but that a non-Fregean would solve by ontologizing, and say the Fregean’s solution differs from the non-Fregean’s.

16. Consider the following statement: (\*) Anything that has beliefs has mental states of some kind. True or false? Our knowledge that (\*) is true is an instance of analytic knowledge.

17. To what extent, if any, does the ability to acquire information through the senses (sight, hearing, touch, etc.) *presuppose* knowledge that is not acquired through the senses. Give two reasons for holding that perceptual knowledge (knowledge derived from the senses) presupposes non-perceptual knowledge. Having done that, try to rebut those two arguments. In other words, try to figure out how a strict empiricist (somebody who believes that *all* knowledge is derived from the senses) would respond to your arguments. Make your arguments both for and against empiricism as convincing as possible.

**ENDNOTES**

1. . *“Mutatis mutandis”* means: *provided that the needed changes are made.* Consider the statement:

   (i) “if I make sure that I exercise and get plenty of rest, and everybody else does the same thing, the world will be a better place.”

   (i) is ambiguous. It could mean either:

   (ii) “if I do my best to make sure that I exercise and get plenty of rest, and everybody makes sure that I exercise and get plenty of rest, the world will be a better place,’

   or

   (iii) “if I do my best to make sure that I exercise and get plenty of rest, and each other person makes sure that he or she exercises and gets plenty of rest, the world will be a better place.”

   Unlike (i), the following sentence *unambiguously* has (iii) for its meaning:

   (iv) “if I make sure that I exercise and get plenty of rest, and everybody else does the same thing *mutatis mutandis,* the world will be a better place.”

   Sentences that are ambiguous in much the same way as (i) often occur in analytic philosophy, and it’s often unclear how they are to be disambiguated. But the “mutatis mutandis” makes it easy to disambiguate them. [↑](#endnote-ref-1)
2. . Expressions that are italicized and boldfaced are very important ones whose meanings must be known. In most cases, those terms are defined and explained in the analytic index, where they are alphabetically listed. When such an expression isn’t defined in the analytic index, it’s defined on the *first* page where it occurs. In cases where I judge the expression to be an especially important one, it is defined both on the first page of its occurrence and in the analytic index.

   An idea is” “incoherent” if it is expressed by a statement that either explicitly or implicitly contradicts itself. [↑](#endnote-ref-2)
3. . Creating the right mechanisms may involve an enormous amount of theoretical knowledge—a N.A.S.A. engineer may know a lot more about physical law than many a professor of theoretical physics. Whether one is an engineer as opposed to a physicist is a function, not of how much one knows about physics, but about one’s attitude towards that knowledge. The engineer is interested in physical law only to the extent that it helps build bridges and tanks. The physicist is interested in bridges and tanks only to the extent that it helps identify physical laws. That is why, even though Newton was one of the greatest physicists of all time, many a contemporary engineer knows more about physical law than he did. [↑](#endnote-ref-3)
4. . Dummett (1978, Chapter 25). [↑](#endnote-ref-4)
5. . This is now contested. Some philosophers hold that there are coherent statements—statements that don’t embody internal inconsistencies—that cannot possibly be true. See Putnam (1975) and Kripke (1980). In Chapter 8, it is argued that this is false. [↑](#endnote-ref-5)
6. . “FL” is short for “Frege’s legacy.” [↑](#endnote-ref-6)
7. . See Frege (1980). Russell (1905, 1914, 1917, 1918, 1927, 1948) did a very good job of clarifying and developing this viewpoint. [↑](#endnote-ref-7)
8. . Russell (1903). [↑](#endnote-ref-8)
9. . The argument about to be given was put forth by Russell (1920). [↑](#endnote-ref-9)
10. . See Pap (1949). Also see Carnap (1932) and Schlick (1934). [↑](#endnote-ref-10)
11. . “TP” is short for” “tall person.” [↑](#endnote-ref-11)
12. . Frege used the word “concept,” not” “property.” [↑](#endnote-ref-12)
13. . “LP” is short for “Larry perception.” [↑](#endnote-ref-13)
14. . “LS” is short for “Larry sentence.” [↑](#endnote-ref-14)
15. . An expression is” “semantically simple” if it doesn’t consist of other expressions. So” “the person in the cockpit at the time of the call” is semantically complex, but” “Socrates” and” “Larry” are not. [↑](#endnote-ref-15)
16. . See Russell (1917, Chapter X), Barwise (1983), Kuczynski (2007). [↑](#endnote-ref-16)
17. . See Brentano’s *Psychology from an Empirical Standpoint.* [↑](#endnote-ref-17)
18. . For points similar to those just made, see Russell (1917, Chapter X), and Russell (1984).

    Nathan Salmon holds that Bart Simpson, Zeus, etc. do exist. He holds that, in act, square circles and even primes greater than two exist. See Salmon (2005, Chapters 1–3). Salmon’s view and his argument for it are discussed in Chapters 6, 8, and 9. It will be seen that they coincide very nearly with those of Brentano and Meinong.

    In fairness to Salmon, whose important work I urge all aspiring philosophers to study, I should point out that my criticisms of his viewpoints are heavily biased by my conviction that philosophical problems ought to be adjudicated through use of post-Fregean methods. For this reason, those criticisms should be taken *cum grano salis.*

    And there’s no denying that Salmon’s views have a certain consonance with common sense. Many of my students say that truth is subjective—that everyone has their own truth. If that position is right, then Bart Simpson and Fred Flintstone *do* exist. Their sentiments, I would guess, are more in alignment with Salmon’s views than they are with mine.

    Salmon also holds that there exist non-existent objects. (See Salmon 2005, Chapters 1–3.) For example, he holds that the sentence “Socrates was wise” is meaningful and, therefore, that there exists something that is its meaning. But he also holds that this very meaning doesn’t exist. And Salmon holds that one can rationally believe a proposition *and* its negation—that, for example, one can, without being irrational, believe *Smith is in Virginia* and *Smith is not in Virginia (since Smith is on the Moon*) at the very same time. (See Salmon 2007, especially the chapter titled “Irrational belief.’) In Chapters 6, 8, and 9 we’ll discuss Salmon’s arguments for these views. But it’s a matter of secondary importance whether these positions of his are accurate. For should they turn out to be false, they would, for that very reason, be true! Remember what Salmon is arguing for: (i) the non-existent exists and (ii) it is sometimes rational believe P and not-P at the same time. The very fact of there being no good reasons to accept (i) would entail that there *did* exist good reasons to accept it; and the very fact of our having reason to reject (ii) would mean that, at least potentially, we had good reason to accept it. Thus, Salmon’s arguments, if unsuccessful, are successful for that very reason, and they are therefore self-validating. One can only marvel at such intellectual virtuosity.

    But even if, by some remote chance, the non-existent *does* turn out to be non-existent, and even if self-contradictory beliefs *do* turn out to be unreasonable ones—even if, I dare say, these strictly theoretical possibilities should materialize, the very fact of Salmon’s having said otherwise is what is important. In saying that the non-existent exists and that the contradictory can be rationally accepted, Salmon is, it seems to me, trying to break down rigid categories that hobble thought. His fascinating and daring views are like Zen koans, the purpose of which isn’t so much to show one the truth, or to delineate truth-conducive methods of reasoning, as it is to rethink one’s views as to what it is that one is learning in learning the truth. [↑](#endnote-ref-18)
19. . This apt way of summing up special relativity is due to Howard Gardner (1976). [↑](#endnote-ref-19)
20. . Empirical discoveries in psychology and physics do play a part in the dissolution of philosophical problems. But usually when some empirical discovery sheds light on a philosophical issue, it is by prompting philosophers to produce the relevant analytic knowledge. Certainly a lot of good philosophy was *prompted* by what Einstein and Freud had to say. But the ensuing philosophical insights were ones that, theoretically, could have been arrived at independently of what they said. [↑](#endnote-ref-20)
21. . And Frege’s knowledge of the meanings of specific German sentences, while obviously empirical, wasn’t materially implicated in the points he was making. He could have made those points had he not known a word of German and had been writing in, for example, Hindi or Spanish. [↑](#endnote-ref-21)
22. . Wittgenstein (1958). [↑](#endnote-ref-22)
23. . Wittgenstein (1922). [↑](#endnote-ref-23)
24. . Epistemology is the theory of knowledge. [↑](#endnote-ref-24)
25. . See Fodor’s (1990) book *A Theory of Content* and his (1998) book *Concepts.* [↑](#endnote-ref-25)
26. . See my (2007) book *Conceptual Atomism and the Computational Theory of Mind.* [↑](#endnote-ref-26)
27. . Although this position is not as popular as Fodor’s, I am not alone in holding it. For example, Laurence Bonjour (1998) holds it. [↑](#endnote-ref-27)
28. . Actually, Quine, in his paper “Epistemology Naturalized,” said that epistemological questions are not to be answered in this way, and are to be answered in the same way as scientific questions; e.g., “what is the Moon’s chemical composition?” There are two points to make here. First of all, even though Quine was an analytic philosopher by trade, it doesn’t follow that all of his views were those of an analytic philosopher; and in this context, I would suggest, he was not being an analytic philosopher. He was being an opponent of analytic philosophy. Second, Quine’s view is incoherent. Natural science is based on empirical observation. Empirical observation cannot tell you that it itself is a source of knowledge. Therefore, it cannot be known through natural science that observation is a source of knowledge, and it must there-fore be known in some non-empirical, and therefore non-scientific, manner. Jaegwon Kim (1993) makes a similar point. [↑](#endnote-ref-28)
29. . Incidentally, the very fact that JK is to be adjudicated in a non-observational manner shows that JK is false. Supposing JK correct, the fact it describes is that one statement is inconsistent with another; and that fact is obviously causally inert, that being why it cannot be observed. [↑](#endnote-ref-29)
30. . In this context, the word “sentence” will stand for both ***sentence-types*** and ***sentence-tokens;*** i.e., for sentences *per se* and also for people’s utterances and inscriptions of them. [↑](#endnote-ref-30)
31. . See Frege (1918). [↑](#endnote-ref-31)
32. . In the sentence, “x is a certain way,’ the word “is” doesn’t denote the relation of identity. The “is” is being used ***predicatively.*** It’s being used in the way it is in the sentence “Smith is happy,’ which obviously doesn’t say that Smith is *identical* with happiness, and not in the way it’s being used in the sentence “Smith is the guy who stole my car.” See Chapter 16, Section 1.1 for further discussion. [↑](#endnote-ref-32)
33. . Actually, we’ll see in Chapter 2, that propositions are *sets* of properties. But this is a nuance. And it’s an irrelevant nuance, since, as we’ll see in Chapter 2, sets *are* properties and, therefore, propositions are identical with sets. This must be understood aright. The property of being a bird is *not* identical with the set of all birds—contrary to what Quine (1960, 1970) and other anti-Platonist philosophers have held. [↑](#endnote-ref-33)
34. . And so far as it *is* up to us how it is, it’s up to us in a *causal* sense. It is people’s actions, not their opinions, that make things true. Even though, on the basis of an opinion, one may perform acts that wrench the world into a certain form, one’s opinion *per se* is innocuous: the world is the way it is regardless of that opinion.

    Also, it’s not a matter of opinion what opinions we have; it’s a matter of fact. We have the opinions that we have and, so far as we know ourselves, our opinions as to what those opinions are track those pre-existing facts. Our second-order opinions—i.e., our opinions about opinions—no more make our first opinions be the way they are than our first-order opinions about the stars make the stars be the way they are. Our second-order opinions may induce us to engage in acts that result in the modification of our first opinions, whereas, our opinions about the stars cannot possibly induce us to engage in acts that change the stars. But that’s irrelevant, since it doesn’t phase the fact that it is never *in virtue of* what one’s opinions are that the world is, or is not, in any respect, a given way. [↑](#endnote-ref-34)
35. . This is the branch of philosophy that aspires to clarify the concepts that are used in formal logic but that themselves resist formal treatment; e.g. ***entailment, formal truth, informal analytic truth, possibility, logical form,*** etc. See Section 7.0 for further discussion. Most of what is said in Part 1 of the present book falls within the jurisdiction of philosophical logic. [↑](#endnote-ref-35)
36. . At certain junctures, this belief of theirs is correct—but only to a certain degree. Logic and rigor only go so far. They’re no substitute for insight or creativity—especially not in fields such as ethics, politics, and religion. Logic and rigor have only a secondary function. They’re helpful in evaluating insights already generated. But they’re useless when it comes to generating them. Political philosophy has benefited enormously from post-Fregean love of rigor. For some reason, political philosophers didn’t take it too far: respect for rigor did not, in their case, turn into rigor-worship. The same cannot be said of every other branch of analytic philosophy. As we’ll see in Chapter 25, the philosophy of religion has become one of the most arcane and technical branches of philosophy, and it’s not always clear that what analytic philosophers of religion are doing has much to do with religion. [↑](#endnote-ref-36)
37. . “Acoustical” means “noise-related,” and “morphological” means “shape-related.” [↑](#endnote-ref-37)
38. . But, as a matter of exegetical fact, I have in no way exaggerated Wittgenstein’s claims. [↑](#endnote-ref-38)
39. . He hedges by “roughly speaking, meaning is use.” He never explains the hedge. I’ve omitted the first two words, since they serve no identifiable purpose. [↑](#endnote-ref-39)
40. . “WA” is short for “Wittgenstein’s argument.” This is not a quotation. There is no one passage where Wittgenstein argues on behalf of his thesis that meaning is use. His arguments are dispersed over many pages, in most cases being presented in the form of aphorisms and rhetorical questions. Quine (1960) advocates the position about to be presented, and he states it very crisply. Some of the locutions that occur in WA are found in Quine (*op. cit.*), and some, though not (so far as I know) used by Quine himself, are Quinean. [↑](#endnote-ref-40)
41. . Wittgenstein is right to assume that propositions, if they exist, are non-spatiotemporal. (What follows is my own defense of this assumption.) First of all, propositions, if existent, aren’t facts. “JMK owns a hundred yachts” is meaningful; if its meaning were the *fact* that JMK owns a hundred yachts, it would have no meaning, since there is no such fact. Propositions obviously aren’t rocks or trees or explosions or anything that we’ll encounter in the external world.

    Nor are they mental entities. *The* proposition that snow is white isn’t some event or structure in my mind or in yours or in anyone else’s. That proposition will exist after we and our ideas are gone. It doesn’t help to say that propositions are artifacts, like churches and lawn-mowers. Churches and lawnmowers are objects in the external world; propositions are not.

    I’ve heard it said that propositions, though not constituents of this or that person’s mind, are constituents of some “collective mind.” But so far as it has any meaning, this proposal is useless. If, in saying that propositions are ideas in a “collective mind,” one is saying that they are ideas in the minds of various individuals, one is simply wrong as we just saw. If, in saying this, one is saying that they are ideas in some mind that, though composed of various individuals mind, isn’t identical with any one of them, one is making the doubtful, and very likely incoherent, assumption that there exists such a mind. We may conclude that no proposition is identical with *anything* you’ll find if you take an inventory of the spatiotemporal world. If they exist, propositions are non-spatiotemporal entities. [↑](#endnote-ref-41)
42. . The argument being put forth is found in precisely this form in Quine (1960). It is also Wittgenstein’s position. But Wittgenstein doesn’t state it as crisply as Quine. [↑](#endnote-ref-42)
43. . A person who *did* know that language would agree that I hadn’t said anything *after* that person had learned that I didn’t know what they meant. That’s why if those noises were offensive, that person would cease to be offended *after* he learned that I didn’t know what they meant. [↑](#endnote-ref-43)
44. . There are different views as to what it is. But, as is universally conceded, they are not themselves sentences. See Chapter 4. [↑](#endnote-ref-44)
45. . ‘TA’ is short for ‘Tractarian argument.’ TA is a paraphrase, not a quotation. But some parts (e.g., BG) are direct quotations. [↑](#endnote-ref-45)
46. . *Tractatus Logico-*Philosophicus*,* Section 4.003. I am using the Pears/McGuinness translation. [↑](#endnote-ref-46)
47. . *Tractatus* Logico*-Philosophicus,* Section 4.003. I am using the Pears/McGuinness translation. [↑](#endnote-ref-47)
48. . Ryle (1949). [↑](#endnote-ref-48)
49. 50. Wittgentein acknowledges that his view has this consequence. At the very end of the TLP, he says that anyone who understands what he has said will see that it is meaningless. But this is incoherent: to understand a statement is to know what its meaning is; so Wittgenstein’s words can’t be understood unless they are meaningful. [↑](#endnote-ref-49)
50. 51. Russell (1905) holds (correctly, I will argue) that one cannot possibly say of some individual x either that x does exist or that x does not exist. When one says “the even prime greater than two doesn’t exist,” one isn’t saying *of* some number x such that x is an even prime greater than two that x doesn’t exist. If *that’s* what one were saying, the existence of just such a number would be presupposed by that very statement. What one is actually saying is that the class of even numbers greater than two doesn’t overlap with the class of prime numbers. All meaningful **negative existentials** are to be similarly analyzed. (Incidentally, Nathan Salmon (2005, Chapters 1–3) disagrees with this. He says that one *can* both meaningfully *and correctly* say of some object x that x doesn’t exist. He says, in other words, that it’s possible for there to exist an object x such that one meaningfully and correctly says that x doesn’t exist. This is, quite obviously, false. In Chapters 6, 7, and 18, the problems with Salmon’s view are detailed.)

    Supposing that Russell is right about this, it might follow that NS2 *is* meaningless, since NS2 seems to say of some individual x that x doesn’t exist. Because I believe that Russell’s analysis of negative existentials is correct, I agree that *if* NS2 is indeed meaningless *if* it says of some individual x that x doesn’t exist. But it’s pretty clear that those who say that NS entails NS1, and who therefore implicitly accept NS2, are saying *something.* The problem isn’t that their words lack meaning, but that they bear a very wrong meaning. Since NS2 *is* meaningful, and since it would be meaningless if it said *of* some individual x that x didn’t exist, it must be taken to mean that:

    (NS3) “there exists a square circle, and there fails to exist anything that is both square and a circle,” which, though absurd, is meaningful. [↑](#endnote-ref-50)
51. 52. A conjunct is one of the sentences composing a conjunction. A conjunction is a sentence that consists of two or more sentences that are joined by an “and” (or some other comparable expression, e.g. “but”). [↑](#endnote-ref-51)
52. 53. See Appendix 2 for a discussion of this principle. [↑](#endnote-ref-52)
53. 54. “CT” is short for “central thesis.” [↑](#endnote-ref-53)
54. 55. “Corollary” is a synonym of “consequence.” A corollary of nation X’s having all its troops in Nation Y is that it can’t station any troops in Nation Z. [↑](#endnote-ref-54)
55. 56. See Wittgenstein (1922), Carnap (1932, 1934), Schlick (1932, 1934), Hahn (1933), Stevenson (1937), Hempel (1950), Ayer (1952). [↑](#endnote-ref-55)
56. 57. “Iff” means “if and only if.” “S1 iff S2” means “if S1 is true, it follows that S2 is true; and if S2 is true, it follows that S1 is true.” Thus, “S1 iff S2” means that the truth of S1 is both ***necessary*** and ***sufficient*** for the truth of S2. [↑](#endnote-ref-56)
57. 58. In addition to being false, the statement:

    (VE) “all meaningful non-tautologies are capable of being observationally verified”

    isn’t a tautology, since it’s debatable (and false, as we saw). Given that VE isn’t a tautology, one who accepts VE must assume it verifiable if not meaningless, and must therefore assume it verifiable. But VE is unverifiable for the same reason as “all metal expands when heated.” Any attempt to show otherwise would be self-refuting. One can’t try to show that VE is verifiable without first assuming it meaningful. But in assuming this, one is assuming that unverifiable non-tautologies *can* be meaningful and, therefore, that VE is false. [↑](#endnote-ref-57)
58. 59. The term “falsificationism” is associated with Karl Popper (1902–1994). But, contrary to what is sometimes alleged, Popper didn’t advocate the doctrine to which that expression refers in this context. He did not hold that a statement had to be falsifiable to be *meaningful.* Popper accepted the doctrine that for a statement to be *scientific* is for it to be falsifiable. (Both doctrines are known as “falsificationism.” Hence the mix-up.) He makes this clear in his (1983) book *Realism and the Aim of Science.* [↑](#endnote-ref-58)
59. 60. Carl Hempel (1905–1997) made points similar to the ones just stated. (See Hempel 1965, Chapter 3.) Hempel starts out by identifying two principles. (i) The ***negation*** of a meaningful statement is itself meaningful. (ii) A meaningful statement can neither entail nor confirm a meaningless one.

    The negation of “snow is white” is “it is not the case that snow is white” or, more simply, “snow is not white.” For one sentence to negate another is for the one to affirm the falsity of the statement made by the other. If a sentence has no meaning, and thus makes no statement, there is no statement whose falsity its negation affirms and, consequently, no statement that it makes. (Given that ‘arga bunga blurb’ makes no statement, there is no statement whose falsity is affirmed by “it is not the case arga bunga blurb.”) Hence (i).

    For one sentence to entail another is for the statement made by the second to be a consequence of the statement made by the first. Thus, “x is a triangle” entails “x has more than one side,” since the statement made by the second follows from the statement made by the first. Thus, no sentence that has a meaning (i.e. makes a statement) can entail one that does not. It follows that no sentence that has a meaning can confirm one that does not. Hence (ii).

    Some verifiable sentences (e.g., “some metal object doesn’t expand when heated”) have unverifiable negations (“all metal objects expand when heated”). Thus, verificationism is false. Some falsifiable sentences (e.g., “no metal objects expand when heated”) have unfalsifiable negations (‘some metal object expands when heated’). Thus, falsificationism is false. Some meaningless sentences (e.g., ‘either the universe is a perfect unity or snow is white’) follow from confirmable ones (e.g., ‘snow is white’). Thus, confirmationalism is false.

    According to some philosophers, Hempel points out, a sentence S is meaningful if it can be translated into a statement that concerns only one’s sensations. (George Berkeley60 (1685–1723) held this, as did Ernst Mach60 (1838–1916) and Rudolph Carnap60 (1890–1970).) This contention is false, Hempel rightly points out, given that it’s a very strong version of the view that only completely verifiable sentences are meaningful.

    The fact that this view is false shows that ***strict empiricism*** is false. Strict empiricism is the view that all non-trivial knowledge has a strictly sensory basis. To say that knowledge has a strictly sensory basis is to say that what is known is either (i) directly observed to be the case or (ii) is inferred from what is directly observed to be the case by means of an inference-rule of whose legitimacy one’s own observations made one aware.

    In Section 7.1, we’ll consider another, subtler argument of Hempel’s for the position that not all knowledge is observation-based. [↑](#endnote-ref-59)
60. 61. In Section 4.8 we’ll question this assumption. [↑](#endnote-ref-60)
61. 62. Technically, ink marks, noises, etc. are sentence tokens, not sentences. But we can set that aside here. [↑](#endnote-ref-61)
62. 63. Carnap (1934). [↑](#endnote-ref-62)
63. 64. He didn’t put it this starkly. And he probably wouldn’t have accepted it—at least not for long—if it had been presened to him this starkly. But that doesn’t mean that it wasn’t his view. It was. [↑](#endnote-ref-63)
64. 65. This is the view of Wittgenstein (1958), W.V.O. Quine (1960), Hartry Field (1977), Robert Brandom (1994), and John McDowell (1998). [↑](#endnote-ref-64)
65. 66. “NT” is short for “Newton’s theory.” [↑](#endnote-ref-65)
66. 67. Note: the bracket-like expressions that occur in what follows—the “‹” and the “›”—are known as ***quasi-quotation*** marks. They occur frequently in words on the philosophy of language and they will occur frequently in this book. In this context, they may be treated as quotation marks. But there are subtle differences between them and quotation-marks, because of which they are not technically interchangeable with quotation-marks. These are identified in Appendix 2, where a definition of quasi-quotation is given. See the entry titled “quasi-quotation marks.

    Quine (1940) invented quasi-quotation marks. In so doing, he did a great service to semantics and logic, for reasons that are given in Appendix 2. [↑](#endnote-ref-66)
67. 68. Strictly speaking, it doesn’t quite say this. S would say how a bodies x1 and x2, having masses m1 and m2, would behave *to the extent that* their behaviors would be functions of their having those masses and being that distance from one another. But other factors might obviously be involved; e.g., x2 might be near some third body x3 whose gravitational pull was much stronger than x1s’ or it under the influence of some non-gravitational force. [↑](#endnote-ref-67)
68. 69. See Hempel (1965, Chapter 3), Sheffler (1981, Part II). [↑](#endnote-ref-68)
69. 70. Wittgenstein, himself LP’s founding father, *did* try to make a case that LP was fundamentally misguided, and not just technically faulty. He spent 20 years trying to make a case for this, and his efforts were embodied in a now famous book known as the *Logical Investigations.* But the doctrines put forth in the *Investigations* are quite as incoherent as LP itself. See Chapter 5. [↑](#endnote-ref-69)
70. 71. Here is a similar argument. LP is a theory—a theory concerning the conditions sentences must satisfy to be meaningful. Tautologies aren’t theories. Tautologies are conventions. Conventions aren’t theories. Therefore, LP isn’t a tautology. [↑](#endnote-ref-70)
71. 72. I’m quoting from the McGuiness/Pears translation. [↑](#endnote-ref-71)
72. 73. Russell (1941, pp. 14–15). [↑](#endnote-ref-72)
73. 74. In her very good book *Physics and the Philosophers,* L. Susan Stebbing makes similar points. (Stebbing is discussing an argument given by Arthur Edington that is similar to Russell’s.) [↑](#endnote-ref-73)
74. 75. The argument about to be presented is further discussed in Chapter 18. [↑](#endnote-ref-74)
75. 76. “GA” stands for “Goodman’s argument.” This is not a quotation. [↑](#endnote-ref-75)
76. 77. What follows wasn’t said by Goodman; I’m developing his point. [↑](#endnote-ref-76)
77. 78. See Mates (1952) for some arguments that, in my judgment, embody a failure to take these points into account. [↑](#endnote-ref-77)
78. 79. Wittgenstein says that the alphabet is a picture ‘in the ordinary sense’ of the corresponding sounds—that “k” is a picture, “in the ordinary sense,” of the corresponding sound. That isn’t true. The relationship between “k” and the corresponding sound is conventional, not iconic. [↑](#endnote-ref-78)
79. 80. A semantic rule is what is expressed by any sentence saying what is meant by an expression of a language.

    So if, while pointing to individual x—who, we will stipulate, is Mick Jagger—I say “that guy’s name is Mick Jagger,” I’m stating a semantic rule, since what I’m saying is that “Mick Jagger” refers to x. [↑](#endnote-ref-79)
80. 81. Frege, who held the same view, said that “propositions are true facts.” Frege’s view isn’t quite accurate. False propositions aren’t facts. It isn’t a fact *that the moon is made of cheese.* Bearng in mind that false propositions aren’t facts, let’s suppose, with Frege, that true propositions *are* facts. Facts are, in at least some cases, spatiotemporal entities. The fact of my typing right now consists of various displacements of mass-energy.

    So if true propositions were facts, then some propositions would be spatiotemporal entities, whereas false ones would categorically fail to be such entities. But it would be theoretical arbitrariness of the worst kind to hold that some members of the class of propositions—which is obviously a unified, highly integrated class—were spatiotemoral, whereas other members of that same class were not. [↑](#endnote-ref-80)
81. 82. When putting forth the picture theory of meaning, Wittgenstein uses the German word “satz,” which means “sentence.” But Wittgenstein’s translators sometimes translate it as “proposition.” Supposing that they’re right to do so, the picture theory of meaning is the view that propositions, not the sentences that express them, are pictures of the facts they describe.

    Thus interpreted, Wittgenstein’s thesis is false. Like the states of affairs they depict, actual pictures (e.g., drawings, photographs) are spatiotemporal entities, and can thus bear a *physical* resemblance to those states of affairs. But propositions are not spatiotemporal entities; they’re abstract objects. Therefore, they cannot in any literal sense resemble the facts to which, when they’re true, they correspond. To be sure, propositions must resemble those facts in some way or other. But that’s trivial, given that, for any two things, there is a respect in which they’re similar to each other.

    A terminological point before we continue: Given a proposition, we’ll refer to the fact that must hold for that proposition to be true as its “truth-maker.” So, supposing that John is North Carolina, the truth-maker of that proposition is the fact that John is North Carolina.

    For the theory that proposition are pictures of their truth-makers to be have any substance, it would have to be said how exactly they resemble those truth-makers; and in order to do that, it would have to be said what exactly propositions are. Usually, Wittgenstein spurns propositions. But every now and then he seems to concede their existence. So far as he does so, his view is that they are veritable models of their truth-makers—that, in other words, a given proposition actually consists of the very objects involved in the fact that, supposing it true, it describes and that, in that proposition, those objects are interrelated in the way they would be in the corresponding fact, were the latter to exist.82 But that theory is rank absurdity. For, if true, the proposition can’t even exist without being true. If the proposition that Smith punched Jones is a structure consisting of Smith and Jones in which the former punches the latter, then that proposition is *it self* a case of Smith’s punching Jones. And in that case, that proposition can’t even exist without being true. But that proposition can exist without being true. The proposition that JMK jumped over the Empire State building exists but isn’t true.

    There’s also the problem that, even though Socrates no longer exists, the proposition *Socrates admired Pal to* still does. Interestingly, Nathan Salmon (1986, 2005, 2007) holds that, for this very reason, that proposition doesn’t exist. Salmon’s position is that the sentence “Socrates admired Plato” is meaningful and that it’s meaning is the proposition that Socrates admired Plato. But, says Salmon, that meaning is non-existent, the reason being that Socrates, one of components, is non-existent. Thus, says Salmon, there exists a proposition that doesn’t exist that is the meaning of “Socrates admired Plato.” This is what Salmon *himself* says. It is not an unintended consequence of his view; it *is* his view. (See Salmon (2005), Chapters 2 and 3.) The merits of this view are discussed in Chapter 3.

    In any case, Salmon’s view is a quasi-Tractarian one. He says that (so far as it exists) the proposition that Socrates admired Plato consists of Socrates and Plato—those two individuals themselves, not concepts thereof—and that, in that proposition, the former stands in the relation of admiring with respect to the latter or stands in some analogous relationship to him. Apart from the fact that Socrates and Plato aren’t around to do the work that Salmon’s theory requires of them, that theory has the drawback that the mere existence of the proposition in question prejudges a number of open empirical issues. If, in that proposition, Socrates must *actually* admire Plato, then the mere existence of that proposition predetermines its own truth. If it’s some other relationship that Socrates bears with respect to Plato, some other issue will be prejudged. In addition, the question will arise why it is that the proposition in question consists of Socrates’ bearing *that* relation to Plato. What is so special about that relationship? And to answer this question, Salmon would actually have to identify the relationship in question.

    To Salmon’s credit, he has attempted to identify this relationship. He has said that the proposition that Socrates admired Plato is the following ordered pair: <the relationship of admiring <Socrates, Plato>>. Thus, he has said, in effect, that the relationship in question—the one that Socrates bears to Plato in the proposition in question—is one that a thing x bears to a thing y in virtue of its being the case that the following ordered pair exists: <the relationship of admiring, <x, y>>.

    This is certainly very helpful. But we have a slight problem. Ordered pairs aren’t true or false. The ordered pair <the relationship of admiring <Socrates, Plato>> true or false. (John Perry points makes this exact point.) An alternative to Salmon’s theory is put forth in Chapter 3. [↑](#endnote-ref-81)
82. 83. Goodman (1976) discusses the concept of a digital representation as well as the, soon to be mentioned, concept of an analogue representation. [↑](#endnote-ref-82)
83. 84. The differences between iconic and linguistic representation are discussed at length in Chapters 21–23 of my (2007) book *Conceptual Atomism and the Computational Theory of Mind: A Defense of Content-internalism and Semantic externalism.* [↑](#endnote-ref-83)
84. 85. “Grass is greed and snow is white” is the result of ***conjoining*** “snow is white” and “grass is green,” and “Grass is greed or snow is white” is the result of ***disjoining*** them. [↑](#endnote-ref-84)
85. 86. A statement is vacuously true if it’s trivially incapable being counter-exampled. An example is: “every human being who lives on Neptune plays the accordion” In order for that sentence to be false, there would have to be a human being on Neptune who didn’t play the accordion. Since there are no human beings on Neptune to begin with, there are none who don’t play the accordion. [↑](#endnote-ref-85)
86. 87. Berkeley made this point very clearly in his (1734) work *The Principles of Human Knowledge.*

    88. Sometimes the word “‘iconic” is used to mean a picture-*like* linguistic representation that isn’t really a picture. Thus, hieroglphys are “iconic,” since they look like the things they represent. But in this context, ‘iconic’ will be synonymous with ‘pictorial’, ‘imagistic,’ etc.

    89. Short for “image of a triangle.” [↑](#endnote-ref-86)
87. 90. This is an adaptation of the Pears/McGuinness translation. I’ve replaced each occurrence therein of “proposition” with “sentence,” for the reasons given earlier. The italics are in the original. [↑](#endnote-ref-87)
88. 91. I suspect that it was his awareness of this fact that led him to end his book by saying that everything in it is nonsense. [↑](#endnote-ref-88)
89. 92. Wittgenstein’s (personal and philosophical) mentor, Bertrand Russell, was at that point the world’s authority on paradoxes of this kind. Russell’s work on these puzzles is by no means obsolete. Wittgenstein was in daily contact with Russell during much of the five year period preceding his writing the TLP. [↑](#endnote-ref-89)
90. 93. And make them go away is what, in effect, Russell (1908) tried to do. Russell said that, even though they seem meaningful, statements that, like (i), self-refer are meaningless. They’re pseudo-statements. They have the surface structure of real statements, but not the logical form.

    Russell found that some intuitively reasonable logical principles entail self-contradictory statements and must therefore be false, and he found that those principles *in fact* referred to themselves, even though they didn’t seem to. The most famous example concerned the ***axiom of comprehension,*** viz: (AC) Given any property, there is some class of objects containing everything that has that property and nothing that lacks it.

    AC is obviously a very reasonable principle. Consider the property of being a bird. There is some class that contains every bird in existence, and doesn’t contain any non-birds.93 But Russell poked a major hole in AC. Let K be the class of all classes that don’t belong to themselves. K must belong to itself if it doesn’t, since it’s the class to which all classes that don’t belong to themselves belong. But, for the same reason, K cannot belong to itself if it does. But, for the very same reason, if K belongs to itself, then it doesn’t belong to itself. So K belongs to itself if it doesn’t, and it doesn’t if it does. It follows that (K) the class of all classes that don’t belong to themselves is a member of itself

    entails its own negation, and that the negation of K entails *t i s* own negation. Since, according to the law of excluded middle (*any given proposition is either true or false*), either K or its negation is true, it follows that K *and* its negation are true. But, according to the law of non-contradiction (*no proposition s i both true and false*), this isn’t possible.

    Russell dealt with this by saying that nothing can be true of itself. Properties cannot be their own instances; statements cannot describe themselves. Thus, AC is ruled out, and so is (i). [↑](#endnote-ref-90)
91. 94. A historical point: In his (1734) book *Principles of Human Knowledge,* George Berkeley made virtually every point that Wittgenstein made in the *Tractatus.* Moreover, in the *Principles* and in other works (e.g., *An Essay Towards a New Theory of Vision*) Berkeley made a number of cogent, insightful, and strikingly modern points, all of which are absent from the TLP. Berkeley’s important work will be discussed in Chapter 13.

    The one claim that is clearly present in the TLP that is clearly absent from the *Principles* is the thesis that for a sentence to be meaningless is to be syntactically ill-formed. Berkeley claimed that for a sentence to be meaningless is for it to be unverifiable, i.e., incapable of being definitively shown to be true on the basis only of what one’s senses tell one. In other words, Berkeley was a verificationist.

    Of course, the TLP advocates verificationism. But verificationism is inconsistent with one of the other main claims of the TLP, namely, that meaninglessness is categorically the result of bad syntax. I leave it to the reader as an exercise to demonstrate this. [↑](#endnote-ref-91)
92. 95. Such references are found in the work of Russell (1918), Wittgenstein (1922), and Hempel (1950). [↑](#endnote-ref-92)
93. 96. A “logically perfect language” isn’t the same thing as a formal language. But, like many others in his time and ours, Hempel didn’t see this. The thesis that meaningful sentences are those that can be expressed in logically perfect languages is, I am certain, an expression of this confusion. [↑](#endnote-ref-93)
94. 97. Hempel (1952, 1965). [↑](#endnote-ref-94)
95. 98. “HA” stands for “Hempel’s argument.” [↑](#endnote-ref-95)
96. 99. Hempel (1952) does an extremely good job of making it clear what conditions an object must fulfill if it is to serve as a metric standard. [↑](#endnote-ref-96)
97. 100. To say that √2 is an irrational number is to say that there are no whole numbers p and q such that p/q = √2. This entails that, given a length L1 of √2 units and also a length L2 of N units, where N is a rational number, there is no rational number M, such that each of L1 and L2 can be divided, without remainder, into M units. Two lengths that are related to each other in this are “incommensurable.” It was, it is said, Pythagoras who discovered the existence of incommensurables. Richard Dedekind (1831–1916) and Bertrand Russell (1872–1970) jointly provided the first clear analysis of incommensurability. See Chapter 7. [↑](#endnote-ref-97)
98. 101. As previously stated, a number N is irrational if there are no numbers p and q such that N = p/q. See Chapter 7. [↑](#endnote-ref-98)
99. 102. Hempel (1952, 1965). [↑](#endnote-ref-99)
100. 103. See Nagel (1962), especially the chapter titled “Indeterminism and causality in quantum-physics.” Nagel brilliantly argues that, although sub-atomic phenomena are indeterministic *with respect to* the categories used to described macro-scopic (and otherwise super-atomic) phenomena, it is possible to identify categories with respect to which sub-atomic phenomena are deterministic. Philipp Frank (1949) has a similar view. [↑](#endnote-ref-100)
101. 104. See van fraassen (1989). [↑](#endnote-ref-101)
102. 105. The plural of “sentence-schema” is “sentence-schemata.” [↑](#endnote-ref-102)
103. 106. In Chapter 13, it is argued that, in his (1734) work *Principles of Human Knowledge,* George Berkeley stated these very points, or at least came close to doing so. [↑](#endnote-ref-103)
104. 1. Short for possible world. [↑](#endnote-ref-104)
105. 2. See Lewis (1973, 1984). [↑](#endnote-ref-105)
106. 3. See Stalnaker (1976, 1984). [↑](#endnote-ref-106)