### LANGARA COLLEGE

Philosophy 2203 – Metaphysics

Richard Johns, September 2016

# What is required to make the world intelligible?

Plato noted that one of the key features about the world we live in is that it is *intelligible*. That is to say, our minds can understand at least many features of the world. You might say that, to a great extent, the contents of our minds fit or correspond to the contents of the world.

### 1. Subjective worlds

Putting this point another way, we might say that (for a particular human being) there are two worlds. One is the objective or external world, the world that exists in a certain way no matter what I think about it. The objective world existed for billions of years before I arrived in it, and will no doubt continue happily after I am gone. The other world, my subjective world, is the world as I understand it. My subjective world contains all the things I know about, arranged exactly as I believe them to be. So, if I am sure that Santa Claus is real, then Santa is one of the objects in my subjective world, with the same status as other things I believe in like Wayne Gretzky and Queen Elizabeth II. You can picture a subjective world as like a map, representing the world as that person conceives it. There is of course no difference, shown on the map itself, between real things and mythical ones. Sometimes historians of science like to write in what I call the 'subjective voice', by describing the events in some period through the eyes of scientists at the time. For example, in *The Structure of Scientific Revolutions* Thomas Kuhn writes (p.149),

Consider, for another example, the men who called Copernicus mad because he proclaimed that the earth moved. They were not either just wrong or quite wrong. Part of what they meant by 'earth' was fixed position. Their earth, at least, could not be moved.

Of course if "their earth" could not be moved, then we are talking about the earth that exists in the subjective world of Medieval scientists, not the actual earth!

Now, there are various ways in which one might try to describe the intelligibility of the external world, in terms of its relation to my subjective world. The most common way is to say that a person's subjective world (or 'epistemic state') represents the world in terms of persisting *objects*, each of which has a certain set of *properties*<sup>1</sup> at a given time. So, for example, in the part of the world that I'm in right now I see a table before me that is rectangular, which has a green book on it, as well as a shiny metal cup. The external world is then intelligible by virtue of the fact that it also contains enduring objects (the correct term is 'particulars') having properties. My subjective world is true to the extent that each of the objects in it corresponds to a particular real thing, and the subjective properties of that thing correspond to its actual properties.

Moreover, in many cases at least, subjective human properties (or concepts) *do* seem to match the real properties of things in the world. The human concept of a sphere, for example, seems to

<sup>&</sup>lt;sup>1</sup> The subjective world also has relations between objects, such as the way that (in my subjective world) Burnaby is east of Vancouver.

roughly match a certain real property of the moon, the earth, and a soap bubble. Of course there are cases where humans project their concepts onto things that don't really have them (as for example when ancient Egyptians attributed divinity and agency to the sun, or scientists thought that rotting flesh could create maggots) but what interests us here are the successful cases, on which the very possibility of human knowledge depends. In general, our best evidence of such success is when we predict the behaviour of the world, based on our conception of it, and find that events unfold exactly as predicted.

### 2. Universals

If we are to distinguish between the subjective and objective worlds, then this includes a separation between the human concept of a sphere and the actual property of being a sphere. The latter has surely existed from eternity, or at least from the near the beginning of the universe, as science describes the formation of the first (spherical!) stars as occurring about 13.5 billion years ago. Clearly, the sphere is more than a human concept, and is not a product of our minds. Those first stars had something in virtue of which they were spherical, something that made them spherical. And they all had this thing, since they were all that same shape. According to Plato, the 'something' that makes a star spherical is the Form Sphere, and such a Form is an eternally-existent thing. A Form is certainly not a material object, for if one were powerful enough then one could destroy all the material spheres in the world, but one could not destroy Sphere – any more than one could destroy the number six.

Plato's Forms are an example of what are now called *universals*. A universal is a property, in the sense that it is a characteristic of objects (particulars) and makes them the kinds of things that they are. For Plato, however, universals are quite separate from material things, and exist in some non-material realm (often referred to as "Plato's heaven"!) His student Aristotle found this problematic, and held instead that universals exist in the same places as the material objects that exemplify them. Thus, if there are three stars, then the universal Sphere exists in each one, and no universal can exist that is not exemplified by something.

Medieval philosophers found that Plato's Forms could neatly be harmonised with their theology. The material world, they believed, was God's creation, and thus the product of a thinking being. No wonder, then, that the world is structured by what seem rather similar to human concepts – universals like the Sphere are in fact divine concepts, and Plato's heaven is the mind of God! Human concepts can (at least approximately) equal divine concepts, since a human mind is 'made in God's image'. Note that, on this Medieval view, universals can exist without any material object to exemplify them, as God might have all kinds of concepts that he decided not to instantiate physically.

### 3. Propositions

So the subjective and external worlds can certainly be compared in terms of the objects and properties (and relations) that exist in them. A better way to compare the two, however, is to note that both the subjective and objective worlds seem to contain what are called *propositions*, or things resembling propositions.

What are propositions? Listed below are some of the roles that propositions have been thought to play.

- 1. A proposition is the 'meaning' of a declarative sentence, i.e. what the sentence *expresses*.
- 2. A proposition is the 'content' of a belief, i.e. the thing that is believed.

- 3. A proposition is the primary bearer of truth and falsehood, so that a sentence is true (or false) only derivatively, by virtue of expressing a true (or false) proposition, and a belief is true (or false) by virtue of having a true (or false) proposition as its content.
- 4. Propositions are the subject matter of logic. The logical operation of negation, for example, maps a proposition *P* to another proposition ¬*P*, called the negation of *P*. And logical relations such as consequence and inconsistency are relations between propositions.

Propositions are also thought to be language-independent. Roughly speaking at least, the propositions that can be expressed in English are the same as those that can be expressed in Greek, Japanese or Urdu. After all, translating a sentence from English to French just means finding a French sentence that expresses the same proposition as the original English sentence. If each language had its own set of propositions then translation would be impossible.

That makes sense to most people, but some philosophers go further in saying that propositions are not just independent of language, but completely mind-independent as well. For example, one philosopher who believed in propositions was Gottlob Frege. Now here's a funny thing: Frege's term for a proposition was a *Gedanke*, the German word for a *thought*. Yet, according to Frege the Gedanken are mind-independent entities that existed from eternity, and are not a product of human minds. (Rather like Plato's Forms, note.) Of course it sounds silly to say that thoughts are mind-independent! Thoughts cannot exist without a mind that thinks them, any more than itches and pains can exist without a mind that feels them. (So perhaps Frege's term 'Gedanke' is unfortunate, but there it is.) Michael Loux describes the mind-independence of propositions as follows<sup>1</sup>: The terms 'statement' and 'thought' are misleading not only because they suggest that we have two types of things where we only have one, but also because they suggest that the objects of statement making and thinking are somehow dependent upon the acts whose objects they are. Calling something a statement suggests that it is essential to it that it actually be stated, and calling a thing a thought suggests that it is a necessary fact about it that it be the object of an act of thinking. Realists, however, have steadfastly denied that the things we do, in fact, state or think need to be stated or thought. They are, one and all, *language-independent* and *mind-independent* abstract entities; it is a merely contingent fact about any one of them that it be asserted, denied, believed, doubted, that it be the object of one of the so-called propositional attitudes. Indeed, realists typically tell us that the objects of statement making and thinking are eternally existent, necessary beings. They always exist and it is impossible for any one of them to fail to exist. The picture, then, is that propositions are all there in advance; and if we assert or believe any one of them, we are merely "latching on" to an antecedently existing reality. But while insisting that it is a merely contingent fact about a proposition that it be stated or thought, realists take it to be a necessary truth that propositions are *statable* and *thinkable*. In fact, realists sometimes define propositions as things that have the property of being such that it is possible that someone think or, as it is put, "entertain" them. So, even if many propositions go forever unthought, they are always there for thinkers to think. And they are equally there for all thinkers. They are *intersubjectively available*. They can be the common objects for different thinkers and different speakers; and because they are, realists claim, communication and a shared conception of the world are possible. What I believe, I can state for your consideration, and you too can come to believe it.

You might wonder what advantage there is to saying that propositions are mind-independent, given that they are so closely tied to thought and cognition. The key motive here is to avoid what is called 'psychologism', the idea that the laws of logic are essentially a matter of human psychology, and describe how human beings actually think. Frege for example was utterly opposed to psychologism, since he regarded the laws of logic as the foundation for all of mathematics, and held that logic and mathematics are fixed and eternal. Frege often referred to the laws of logic as the 'laws of truth', and contrasted them with the 'laws of belief' that psychology is concerned with. Frege said, for example, (*Grundgesetze der Arithmetik*, 202)

There is no contradiction in something being true which is held by everyone as false. I understand by logical laws not psychological laws of holding as true, but laws of being true. If it is true that I am writing this in my room on 13 July 1893, whilst the wind howls outside, then it remains true even if everyone should later hold it as false. If being true is thus independent of being recognized as true by anyone, then the laws of truth are not psychological laws, but boundary stones set in an eternal foundation, which our thought can overflow but not dislodge. And because of this they are authoritative for our thought if it wants to attain truth.

And in the *Grundlagen der Arithmetik* (Trans. Dale Jacquette. pp. 13-15.),

"... a proposition just as little ceases to be true when I no longer think of it than the sun would disappear if I closed my eyes. Otherwise, we come down to this, that in order to prove the Pythagorean theorem it is necessary to think about the phosphorous content of our brains; and an astronomer would dread to reach his conclusions about long past times, so that one does not object to him: 'You calculate here that 2 x 2 = 4; but the idea of number has a development, a history! One can doubt whether by that time it was already so advanced. ... The historical approach ... has also its limitations. If in the existing flux of all things there is nothing fixed then the knowability of the world would end and everything would plummet into confusion. One thinks, as it appears, that concepts in the individual mind emerge like the leaves on trees, and believes that their nature could be recognized from this, that one explores and seeks to define their emergence psychologically from the nature of the human mind. But this conception pushes everything into the subjective, and if pursued to the end, annihilates truth."

So you see Frege's concern that truth, logic, math, etc. 'be boundary stones set in an eternal foundation', and this seems to require that propositions are also objective and eternal. Michael Loux thus summarises the views of people like Frege about propositions:

When they claim that there are such things as propositions, realists are claiming that there is a special category of entities that constitute the objects of acts of asserting and denying and acts of thinking. Although it is only a contingent fact about one of these entities that it actually get asserted or thought, it is a necessary truth that each proposition be something that is assertible or thinkable. Realists characterize these special entities as abstract entities that exist eternally and necessarily. They claim that what they call propositions are intersubjectively available and, hence, constitute the materials for the public communication of a shared conception of the world. They tell us that these items are essentially truth vehicles or the bearers of the truth values and that they are the primary or nonderivative subjects for truth and falsehood. Accordingly, they are the things that, in the first instance, enter into the various logical relations. Finally, realists tell us that these entities are the referents of that-clauses, and they insist that the unique logical behavior of that-clauses points to a central feature of propositions, that each is a unique representation of the world. (p. 129)

### 4. Facts and States of Affairs

Loux points out that, curiously perhaps, philosophers believe in some entities that are proposition-like without actually being propositions. Facts, for example. As Loux describes:

What exactly are facts? The standard answer is that facts are those things in the world that make true propositions true. ... The initial claim is that for propositions to be true is for them to stand in a special relation to things in the world; they must "fit" those things; or, as it is usually put, they must *correspond* to them. So each true proposition stands in a relation of correspondence to some item in the world; and in virtue of standing in that relation to that item, it counts as a true proposition.

Loux goes on to explain why we seem to need to believe that facts exist.

The central argument for the existence of facts as a separate ontological category proceeds by pointing out that we cannot completely and adequately identify that in the world which makes a true proposition true merely by listing the various particulars and attributes (properties, kinds, and relations) that populate the world.

The proposition that David Lewis has a beard is true. We do not, however, succeed in identifying that in the world which makes this proposition true merely by mentioning the particular human being, David Lewis, and the property of having a beard and adding that both items exist; for more than the mere existence of those two things is required for the truth of the proposition that David Lewis has a beard. It might be thought that if we add to our list the connection or tie we have called exemplification, we succeed in identifying what counts as the truth maker for the proposition; but a moment's reflection shows that this is not so. Again, it is possible for David Lewis, the property of having a beard, and the tie or nexus of exemplification all to exist and for the proposition that David Lewis has a beard to be false. No mere list of particulars, universals, and connections, however long, is sufficient to identify the thing that makes the proposition true. To identify the objective correlate of the proposition, the thing in the world correspondence to which makes the proposition true, we must say something like "It is the case that David Lewis exemplifies the property of having a beard" or "It is a fact that David Lewis exemplifies that property"; and when we say these things, we are pointing to something over and above the relevant particular, the relevant property, and the relevant connection; we are pointing to a fact. The fact we are pointing to certainly involves the particular, the property, and the tie; but it is not reducible to them; it is a categorically distinct and separate thing.

So a fact is a lot like a true proposition, it seems. Is there even a difference between the proposition that *David Lewis has a beard* and the fact that *David Lewis has a beard*? The reason they need to be separated, philosophers say, is that the facts are what *make* propositions true. A proposition is true if it corresponds to a fact, or represents a fact, or something of that sort. Of course a

proposition cannot make itself true (by agreeing with itself perhaps). In that case all propositions would be true! Furthermore, since the truth of a proposition depends on how things are in the objective, external world, the facts are creatures of the external world only.

The close similarity between propositions and facts should be examined further, but first let's introduce yet another propositionlike thing, called a possible state of affairs. Over to Loux again:

Close relatives of facts are what philosophers call states of affairs. States of affairs are things like Bill Clinton's being a slow runner, two plus two's equaling four, Big Ben's being the tallest structure at Westminster, nine's being a prime number, and QPR's winning the FA Cup. They are situations, the sorts of things that have essentially or necessarily the property of *obtaining* or failing to obtain. Some states of affairs (like that consisting in two plus two's equaling four) obtain necessarily; others (like that consisting in nine's being a prime number) are necessarily such that they fail to obtain; still others (like Clinton's being a slow runner) obtain, but do so only contingently; and, finally some states of affairs (like, alas, that consisting of QPR's winning the Cup) are such that they contingently fail to obtain.

As they are typically conceived, states of affairs are like the universals of Platonistic realists. Just as the Platonists insist that every universal is an eternal and necessarily existent being, so defenders of states of affairs insist that every state of affairs exists eternally and necessarily; and just as Platonists distinguish between the existence of a property, say, and its being instantiated, defenders of states of affairs tell us that the existence of a state of affairs is one thing, its obtaining, something else. Even though it is necessarily such that it does not obtain, the state of affairs consisting in nine's being a prime number, nevertheless, exists. There is such a thing; and defenders of states of affairs deny that there is anything problematic in conceding this fact. What would be problematic is the claim that this state of affairs obtains; but, of course, it does not and cannot.

By the way, a (possible) state of affairs that 'obtains', or is 'instantiated', is often called an *actual* state of affairs. It's pretty clear that, like facts, states of affairs are eerily similar to propositions:

States of affairs obviously bear an intimate relation to propositions. Associated with the state of affairs consisting in two plus two's equaling four is the proposition that two plus two equals four; and associated with the state of affairs consisting in nine's being a prime number is the proposition that it is a prime number. Such associations, defenders of states of affairs assure us, are no accident. They insist that there is a one-to-one correlation between propositions and states of affairs. As it is often put, each proposition determines one and only one state of affairs; and each state of affairs is determined by exactly one proposition.

Now, based on the examples that Loux gives, it seems that a state of affairs is actual, or 'obtains', or is 'instantiated', just in case it exists in the concrete, physical sense – it's a component or aspect of concrete reality. The state of affairs of *Wayne Gretzky being elected Canadian prime minister in 2015* is not actual, for example, since this state of affairs exists only as an abstract possibility, and is not concretely real. If it were concrete, then it would have causes and effects (which it clearly does not). But in that case every true proposition will represent or correspond to an actual state of affairs, and so there is surely no difference between a fact and a state of affairs that obtains. Fact = actual state of affairs.

That's a relief. In addition to propositions, therefore, we just have possible states of affairs. These divide into two kinds: the actual states of affairs (also known as 'facts') and the non-actual possible states of affairs.

## 5. Are propositions subjective after all?

Now Loux says above that the defenders of states of affairs "insist that there is a one-to-one correlation between propositions and states of affairs." This would mean that every proposition describes a unique state of affairs, and every state of affairs is represented by just one proposition. This view must be wrong, however, as it is incompatible with the basic notion of a proposition as the content of a belief. In fact, the best examples to show this incompatibility are ones developed by Frege himself. Here's a brief story about astronomy:

In ancient times, astronomers distinguished between the fixed stars, which keep their positions relative to each other, and the wanderers (planets) that move slowly against the backdrop of the fixed stars. Two of these planets were called Hesperus and Phosphorus. Hesperus was visible, at certain times of the year, as a bright light above the western horizon after sunset. At other times of the year, Phosphorus was visible as a bright light over the eastern horizon, before sunrise. Hesperus and Phosphorus were never both visible on the same day. Hesperus would be visible for a few months; then it would disappear for a couple of weeks. Then Phosphorus would appear, and so on. As science progressed, the trajectories of the planets were plotted accurately against the sphere of the fixed stars, and a curious fact emerged. The paths of Hesperus and Phosphorus were clearly segments of a *single* path through the heavens. The conclusion was hard to avoid: Hesperus and Phosphorus are not two separate planets, as was previously thought, but are really the *same* planet. Hesperus *is* Phosphorus. This view, that Hesperus and Phosphorus are identical, is still believed today. Indeed, we now refer to this planet using the single name *Venus*.

Ok, so what's the point? Let's think about an ancient astronomer, Alice say, who lived before the discovery that Hesperus and Phosphorus are the same planet. Let's say that Alice had, or at least entertained, the following two beliefs:

- (1) There is life on Hesperus
- (2) There is life on Phosphorus

Now, I have no idea why Alice might speculate about such matters. The key point here is that propositions (1) and (2) are very different, from Alice's point of view. Since in her subjective world Hesperus and Phosphorus are two different planets, (1) and (2) are two different claims. One is about Hesperus, and the other is about Phosphorus! If Alice were to deduce (1) from (2), she would be guilty of a gross *non sequitur*, one that her colleagues would be quick to point out. "Even supposing that there is life on Hesperus," they would say, "that would go nowhere near proving that life exists on Phosphorus."

On the other hand, the sentences (1) and (2) describe the same possible state of affairs, that of there being life on Venus. Facts and other states of affairs concern only the external world, and don't depend on anyone's state of knowledge. Could Hesperus and Phosphorus have been two distinct planets? Not in the objective sense of 'possible', for that would require Venus to be a different thing from itself.

So here is a case where two distinct propositions represent the same possible state of affairs, contrary to the one-to-one correlation between propositions and states of affairs that Loux referred to. And there are many other cases that refute this alleged correspondence. For example, Alice might also suspect (for whatever reason) that:

(3) Hesperus is slightly larger than Phosphorus.

This is a perfectly consistent proposition for her to entertain. But it represents no possible state of affairs at all, as no object can be larger than itself. (You might say that it represents an *impossible* state of affairs I suppose, but do such things even exist?) Another case is:

(4) Phlogiston is heavier than air.

Phlogiston (a 'fire substance' that chemists no longer believe in) does not exist, so what state of affairs, possible or otherwise, could be picked out by such a claim? Yet the belief itself would have been reasonable to entertain in its historical context, before Lavoisier's discovery of oxygen.

These examples seem to indicate rather clearly that, while possible states of affairs are anchored in the external world, propositions live in the subjective worlds of particular people. A proposition about the weight of phlogiston is actually meaningless to a contemporary chemist, since it belongs to a different subjective world. If we accept this view of propositions as subjective, then does Frege's nightmare of psychologism come to pass? By no means, for two reasons. First, even if the laws of logic concern propositions, which are subjective on this account, it does not follow that the laws of logic are mere psychology. For these laws *prescribe* how humans (and any other rational beings) *ought* to think, rather than describing how they think in fact. Moreover, even though propositions are subjective, there is also the objective realm of states of affairs, and it is this realm that determines what is true and what is false.

# 6. Nominalism about propositions

So far I have been presenting the views of those who believe in propositions, and only criticising them in a limited way. However, many philosophers reject the existence of propositions entirely. They are called 'nominalists' – borrowing the term for those who deny the existence of universals. Loux writes (pp. 130-131):

In the light of our earlier discussions of universals, the general tenor of nominalist criticisms of propositions will not surprise us. We find the familiar charges of bloated ontologies, baroque metaphysical theories, and bizarre and mysterious abstract entities. We meet as well complaints about "two-world" ontologies and the epistemological problems they generate. The claim, once again, is that theories which divide things into the concrete and spatiotemporal, on the one hand, and the abstract, timeless, and nonspatial, on the other, cannot accommodate causal relations between entities of the two types; consequently, such ontologies leave it a mystery how concrete beings like ourselves could have epistemic access to the abstract entities they postulate. And the critic adds that, in the present context, this difficulty has a special urgency since it suggests that the ontology of propositions lacks the resources for making sense of the very facts it is introduced to explain, the possibility of human thought and communication. And the other objections to propositions are equally familiar.

We are told, for example, that since propositions cannot be identified except by way of the phenomena they are supposed to explain, the appeal to propositions is mere pseudo-explanation. Realists bring forward certain facts - that statement making and thinking take objects, that there are intersubjective bearers of the truth values, that that-clauses require referents and then conclude that propositions exist; but since we can say what propositions are only by reference to these facts, their introduction is the appeal to a virtus dormitiva. And, finally, we are told that the appeal to propositions violates Ockham's Razor. The charge is that since metaphysicians can accommodate all the phenomena of interest to realists by way of a theory in which propositions play no part, a theory including propositions multiplies entities beyond necessity.

This final contention, of course, figures as the centerpiece in the debate between those who favor and those who eschew propositions. In support of their contention, opponents of propositions have developed a variety of accounts. By far the most popular strategy is to argue that the claims realists take to be about propositions are really just disguised ways of making metalinguistic claims, claims about sentences. ...

### 7. Conclusion

Loux fills many pages describing the attempts of nominalists to dispense with propositions and states of affairs, replacing talk of propositions with talk of sentences. The upshot is that it is very hard to do without propositions, just as it is hard to do without numbers, universals, and other abstract objects. Mind you, if propositions are subjective, and merely part of a person's subjective world, then this will surely make them far more acceptable to nominalists anyway. (The objective states of affairs will be just as objectionable, however, and perhaps even more so. If propositions really are thoughts, products of minds, and so on, then how can they be so similar to states of affairs that are eternal an objective?)

Let's now return to the question we began with, "What is required for the world to be intelligible?" The realist answer seems to be that the world is at least partly constituted by states of affairs, which are very similar in structure to human belief contents. The same logical operations (such as conjunction and negation) can be applied to both propositions and states of affairs, and both propositions and states of affairs stand in the same logical relations of consistency and consequence. The presence of thought-like entities in the external world is rather implausible to some, however.

<sup>&</sup>lt;sup>1</sup> The quotes from Michael Loux are all in *Metaphysics: A Contemporary Introduction,* Chapter 4. (Third edition, 2006)