

PHILOSOPHY 4360/5360 – METAPHYSICS

Methods that Metaphysicians Use

Method 1: The appeal to what one can imagine – where imagining some state of affairs involves forming a vivid image of that state of affairs.

Such appeals to what one **can imagine** are used to support claims that something is **logically possible**.

Example 1: Humans and Immaterial Minds

Can one imagine surviving the destruction of one's body? The idea is that one can form a vivid picture of what it would be like to continue to have experiences, thoughts, memories, and other mental states, and ones that were causally linked to one's earlier mental states, at a time after which one's body had been destroyed. Some philosophers, such as Richard Swinburne, have held that since one can do that, it is **logically possible** that one could survive the destruction of one's body. But if it is logically possible to survive the destruction of one's body, then one cannot be identical with one's body.

What is one to say about this argument? Since there is excellent evidence that one's psychological capacities and abilities depend on one's brain, and will not survive the destruction of one's brain, there is surely something wrong with this argument. But what exactly is wrong with this argument? Does the error lie in the view that one's ability to imagine something, to picture something vividly, is grounds for concluding that the thing in question is logically possible? Or does the error lie elsewhere?

Consider precisely what it is that one can vividly imagine. One can imagine experiences and memories that belong to a single, unified consciousness, that exist after the destruction of one's body, and where the memories include memories of experiences that one had before the destruction of one's body. But those experiences and memories have to belong to a mind, with various capacities, if one is to have survived the destruction of one's body, and that mind will be an immaterial substance, since we are not considering the possibility of surviving in a new body. Now, however, if one is to have survived, the mind that exists after the destruction of one's body must be identical with the mind that existed before the destruction of one's body. Suppose now that materialism about human beings is true. Then the mind that existed before the destruction of one's body was identical with one's brain, so if one is to be imagining surviving the destruction of one's body, one has to be imagining – vividly or otherwise – that the material mind that existed earlier is identical with the immaterial mind that exists later. Is this possible?

If the answer is that it is not, then what one is imagining is not one's surviving the destruction of one's body: what one is imagining is the coming into existence of an immaterial mind that, although not identical with one's earlier mind, contains memories of one's earlier experiences, and perhaps the same beliefs, desires, attitudes, and personality traits.

On the other hand, if it is possible, given appropriate laws of nature, for a brain to "morph" into an immaterial substance, so that the later immaterial mind is

identical with the earlier brain, then there is no impossibility in surviving the destruction of one's body even if one is identical with one's body.

Either way, then, Richard Swinburne's argument is unsound.

Example 2: Time Travel and Backwards Causation

A second example involves imagining that one is traveling in a time machine, back into the past. Again, it might seem that one can form a series of vivid pictures of what it would be like to travel back to the year 1900, and to have experiences there. Does this then provide good support for the idea that time travel into the past is logically possible?

If it does, it also provides good grounds for concluding that backward causation – causation in which later events cause earlier ones – is logically possible. But if backward causation is logically possible, then mustn't causal loops be logically possible. But causal loops may involve self-supporting causal loops, or, more dramatically, self-undercutting causal loops. If such things are problematic, then the question arises whether what one imagines when one thinks of oneself as imagining what it would be like to travel back into the past really provides good grounds for concluding that time travel is logically possible.

The crucial question to ask in such a case is this: "What *exactly* can one *vividly imagine* in such a case?" Try imagining travelling back a day into the past. As regards what one can **vividly imagine** – as contrasted with what one can *conceive* – is it not the case that it does not differ from what one can vividly imagine if one imagined oneself being transported instead to an alternative spatiotemporal realm that is just like the way this world was yesterday? If this is right, then one's **description** of what one is imagining as imagining that one has travelled back into the past **goes beyond the content of the vivid image that one has formed**. The vivid image provides no support, then, for the claim that time travel back into the past is logically possible.

Method 2: The appeal to what one cannot imagine.

Such appeals to what one **cannot** imagine, in cases where, if the state of affairs in question did exist, it would be perceivable, are sometimes used to support claims that that state of affairs is **logically impossible**.

Example: The Incompatibility of Different Color Properties

Can one imagine something that is both completely red and at least partly green? It seems that one cannot, and many philosophers have taken that as grounds for concluding that it is logically impossible for something to be both completely red and at least partly green.

In thinking about this, it is worth asking a related question: Can one imagine something that is reddish-green in color? Here, too, it seems that one cannot. But is it logically impossible that something should be reddish-green? Given that something can be reddish-blue, reddish-yellow, greenish-blue, and greenish yellow, is it reasonable to think that it is logically impossible for something to be reddish-green?

Method 3: The appeal to what one can coherently conceive.

Sometimes claims about what is logically possible are supported by claims about what one can coherently conceive, rather than by claims about what one can imagine. But what does it mean to say that one can coherently conceive of some proposition's being true? Does it mean that when one contemplates the proposition in question, one is unable to see how it gives rise to any contradiction? If so, then that may provide **some** support for the conclusion that the proposition expresses a logical possibility, but it is not clear that the support is very strong, since a proposition may be such that the proposition is necessarily false, and yet it may be very hard indeed to show that this is so.

Example 1: Fermat's Last Theorem

When one contemplates the following proposition

(*) There are whole numbers x , y , z , and n , such that $n > 2$ and such that $x^n + y^n = z^n$ no contradiction appears to follow from that proposition. But, as Andrew Wiles showed in 1993, that proposition is necessarily false.

Example 2: The Goldbach Conjecture

Can one coherently conceive of an even number greater than 2 that is not equal to the sum of two prime numbers? If one contemplates the proposition that there is such a number, no evident contradiction is apparent. But if the Goldbach Conjecture is true, there is no such number, and so the proposition that there is such a number will express a logical impossibility.

Method 4: The appeal to what one cannot coherently conceive

One can also appeal to what one **cannot** coherently conceive to support claims about what is logically **impossible**. If to be able to coherently conceive of something is to be able to contemplate the relevant proposition without seeing any contradiction arising from it, not to be able to coherently conceive of something is for one to see, when one contemplates a proposition, that some contradiction does follow from it. But then it is certainly true that the proposition does not express a logical possibility. This method, then, seems unproblematic.

Method 5: The Appeal to Intuitions, or Intellectual Seemings

Sometimes philosophers, to support claims about what is logically possible, or logically impossible, appeal not to what one can or cannot imagine, nor to what one can or cannot coherently conceive, but, instead, to **intuitions** about what is logically possible, or logically impossible.

What are intuitions? One answer is that to have an intuition that something is the case is for it to **seem** to one that it is the case, where the seeming, rather than depending, either directly or indirectly, upon perception or sensory experience, arises directly out of contemplation of the proposition in question. In short,

Person S has an **intuition** that proposition p is true

= def.

Person S 's contemplating proposition p is itself sufficient to bring it about that it seems to S that p is true.

If merely contemplating a proposition suffices to make it the case that it seems to one that the proposition is true, then it would seem that the truth of the proposition cannot depend upon anything outside of the proposition, and so it would seem that the proposition, if true, must be **necessarily** true. If an intuition can provide grounds for thinking that a proposition p is true, it would seem that it also provides grounds for thinking that proposition p is necessarily true. In doing so, it also provides grounds for thinking that not p is necessarily false. The method of intuition, then, if sound, would seem to provide grounds for conclusions about the **modal status** of propositions – that is, for conclusion about what is logically necessary, logically impossible, and logically possible.

But is the method sound? I am inclined to think that when it seems to one that something is logically possible, that seeming is likely to rest simply upon one's inability to see how the proposition in question can give rise to any contradiction. If this is right, then the appeal to intuitions has only as much force as the appeal to what one can coherently conceive.

Similarly when one appeals to the fact that it seems to one that something is logically impossible, I do not see why weight should be placed on that unless it rests upon one's seeing that the proposition in question gives rise to a contradiction. If that is right, then the appeal to intuitions concerning what is logically impossible has no force beyond what is present in an appeal to what one cannot coherently conceive.

Method 6: Conceptual analysis.

Here the basic ideas are, first, that some concepts can be analyzed in terms of, can be explained in terms of, other concepts; secondly, that the relation of analysis is an asymmetric relation, so that if there is an analysis of concept A that involves concept B , there cannot be an analysis of concept B that involves concept A ; and, thirdly, that the process of analysis, rather than being one that goes on forever, must terminate in concepts that cannot be analyzed, that are analytically basic.

Nelson Goodman's Challenge to this View: Analysis as Merely Relative to a Conceptual System

X is grue at time $t = \text{def.}$ Either X is green at time t and t is earlier than t_0 , or X is blue at time t and t is either t_0 or later than t_0 .

X is bleen at time $t = \text{def.}$ Either X is blue at time t and t is earlier than t_0 , or X is green at time t and t is either t_0 or later than t_0 .

These definitions suggest that the concepts of being grue and bleen are less basic than the concepts of being blue and green. But Goodman argues that he can equally well claim:

X is green at time $t = \text{def.}$ Either X is grue at time t and t is earlier than t_0 , or X is bleen at time t and t is either t_0 or later than t_0 .

X is blue at time $t = \text{def.}$ Either X is bleen at time t and t is earlier than t_0 , or X is grue at time t and t is either t_0 or later than t_0 .

Syntactically, in short, it is true at least that there are analytical equivalences that are completely parallel.

Method 7: The proof of propositions using logic alone.

Example 1: The non-existence of the Russell set, R , defined as the set of all sets that are not members of themselves.

Bertrand Russell's Proof of the Non-Existence of the Russell Set

' \in ' is the symbol typically used for the relation of set membership. So ' $X \in Y$ ' says that X is a member of the set Y .

Then ' $S \in S$ ', in saying that S belongs to set S , is saying that S is a set that belongs to itself, while ' $\sim(S \in S)$ ' says that S is a set that does not belong to itself.

Notice that the sets that one typically thinks of do not have themselves as members: the set of all horses does not, for example, contain itself as a member, for all of its members are horses, and no set is a horse.

Can one think of any sets that *do* belong to themselves? Well, must not the universal set, U , defined as the set that contains every set, be a set that contains itself as a member?

Next, define the 'Russell set' – call it R – as the set of all and only sets that are not members of themselves:

$$X \in R =_{\text{def.}} \sim(X \in X).$$

Question: Is it the case that $R \in R$? Does the Russell set belong to itself?

Well, either $R \in R$, or $\sim(R \in R)$

(1) Suppose then that $R \in R$. It then follows immediately from the definition of the Russell set R that $\sim(R \in R)$. So we have a **contradiction**.

(1) Suppose, on the other hand, that $\sim(R \in R)$. It then follows immediately from the definition of the Russell set R that $R \in R$. So once again we have a **contradiction**.

In either case, then, we have a contradiction. So *if* the Russell set R exists, *if* there is a set that contains all and only those sets that are not members of themselves, a contradiction is true.

Like most philosophers, Russell held that there are no true contradictions, and so he concluded that there could not be a set of all and only sets that are not members of themselves. (Graham Priest, an Australian philosopher, and advocate of dialethic logic, maintains that the correct conclusion to draw is that there are some true contradictions.)

Example 2: The non-existence of the universal set, U , defined as the set of all sets.

The following principle seems extremely plausible:

For any set S , and any property P , one can define the set T that consists of all and only members of set S that have property P .

But if that principle is right, if the universal set, U , defined as the set containing absolutely every set that exists, exists, then one can define the Russell set, R , since

that is just the subset of U that consist of the members of that set that have the property of not belonging to themselves.

Accordingly, if universal set, U – the set of all sets – existed, so would the Russell set, R – the set of all sets that are not members of themselves, and so we would again have a contradiction.

Method 8: The proof of propositions using logic plus conceptual analysis.

Analytic truths can be defined as truths that are derivable from logical truths in the narrow sense that is, from **purely formal** logical truths – by the substitution of synonymous expressions.

Historical Note

Immanuel Kant defined analytical truths as subject-predicate propositions whose predicate concept is contained in its subject – as, for example, in the proposition that all bachelors are unmarried. This definition is, however, too narrow, since it means that analytically true propositions are restricted to propositions of a subject-predicate form, whereas analytically true propositions can have other logical forms.

What are some examples of analytically true propositions that are not of subject-predicate form? Here are some candidates:

- (1) The proposition that $5 < 7$
- (2) The proposition that if $x < y$, and $y < z$, then $x < z$.
- (3) The proposition that if x is a subset of y , and y is a subset of z , then x is a subset of z .
- (4) The proposition that if x is heavier than y , and y is heavier than z , then x is heavier than z .

But how does one show that these are analytic when analytic truths are defined, not as Kant did, but as truths that are derivable from logical truths in the narrow sense – that is, from **purely formal** logical truths – by the substitution of synonymous expressions? Here is an illustration in the case of the fourth of the above propositions.

1. Introduce the term “outbalances”, where x outbalances y is defined as follows: When x and y are placed on opposite sides of a balance scale, the side with x on goes down, and the side with y on it goes up.
2. So defined, there can be possible worlds where x outbalances y , and y outbalances z , but z outbalances x .
3. Now define the concept of being heavier than as follows:
 “A is heavier than B” = def. “A outbalances B, and it is true that $(x)(y)(z)(\text{If } x \text{ outbalances } y, \text{ and } y \text{ outbalances } z, \text{ then } x \text{ outbalances } z)$ ”.
4. Then one can use the following proposition, which is a purely formal logical truth:

If (1) A outbalances B and $(x)(y)(z)(\text{If } x \text{ outbalances } y, \text{ and } y \text{ outbalances } z, \text{ then } x \text{ outbalances } z)$, and (2) If B outbalances C and $(x)(y)(z)(\text{If } x \text{ outbalances } y, \text{ and } y$

outbalances z , then x outbalances z), then (3) A outbalances C and $(x)(y)(z)$ (If x outbalances y , and y outbalances z , then x outbalances z).

5. Substitution of the definition of "A is heavier than B" will then yield the proposition that if A is heavier than B and B is heavier than C, then A is heavier than C.

Possible Examples:

- (a) A cause cannot succeed its effect.
- (b) Time cannot be cyclic.
- (c) All properties are completely determinate.

Comment

Often, in metaphysics, philosophers have tried to establish *negative existential* claims - that is, claims to the effect that certain things do not exist - by arguing that it is logically impossible for them to exist, and have tried to establish the latter by showing that the proposition that things of the type in question do exist leads to a contradiction.

The use of logic alone, or logic plus conceptual analysis, to establish *positive existential* claims is much less common - with the ontological argument being one of the very rare cases where such a line of argument has been attempted.

Method 9: The use of inference to the best *causal* explanation.

Examples

- (a) Arguments for the existence of God, or a first cause, or an unmoved mover.
- (b) Arguments for the existence of other minds.
- (c) Arguments for the existence of a mind-independent physical world.

Method 10: The use of inference to the best *non-causal* explanation.

Example 1: Laws of Nature

Here the basic idea is that cosmic regularities, if they do not obtain in virtue of some atomic state of affairs, would be immensely improbable.

Example 2: Causal Relations

Here one basic idea is that there are striking temporal asymmetries in the world that would be immensely improbable if there were no causation in the world. (Popper's case of outgoing concentric waves, and the case of outgoing spherical wave fronts.)

Comment

One needs to ask, however, whether inference to the best explanation can be a **fundamental** method. Consider, in particular, inference to the best **causal** explanation. The concept of causation is itself a concept whose analysis is very difficult, and is it not surprising to see such a concept playing a role in a fundamental **inductive** principle? Wouldn't one think that inductive logic, at its most basic level, should be free of such concepts, just as deductive logic is? That is

certainly the view of some philosophers – most notably Bas van Fraassen, who has argued at length that the principle of inference to the best explanation should be rejected.

I think that van Fraassen is right in maintaining that the principle of inference to the best explanation cannot be a **basic** principle of inductive logic. But that does not mean that it cannot be a **sound** principle, for it may be possible to derive the principle of inference to the best explanation from fundamental principles of inductive logic, together with an analysis of the notion of **explanation**, and quite possibly also an analysis of the concept of **causation**.

But how would the more basic inductive principles be formulated? The answer is given by the next method that metaphysicians have used:

Method 11: The use of a system of logical probability to show that certain things are likely to be the case, or that certain things are unlikely to be the case.

Illustrations:

(1) The mathematician Thomas Bayes (1702-1761), in his posthumously published "An Essay towards Solving a Problem in the Doctrine of Chances" (1763), starting from the assumption that all propensities are equally likely, showed how statistical information about the behavior of an object could justify probabilistic conclusions concerning that object's **underlying propensities**.

(2) If metaphysically robust, governing laws of nature are logically impossible, then it is very **unlikely** that the world contains any cosmic regularities.

(3) If metaphysically robust, governing laws of nature are, on the other hand, logically possible, then it can be very **likely** that the world does contain cosmic regularities.

Method 12: The use of inference to the best account of the truth conditions of statements of a certain type.

Example 1: David Lewis's account of the truth conditions of statements about logical possibilities.

Lewis's idea of possible worlds is as follows. Possible worlds are **concrete** entities. They are concrete spatiotemporal worlds of concrete objects, where different possible worlds are completely unrelated to one another, worlds that stand in no temporal, spatial, causal, or other external relation to one another.

Given this notion of possible worlds, David Lewis argues that one was justified in postulating the existence of such things since they are needed to provide **truthmakers** for statements about logical possibilities. Consider, for example, the proposition that the existence of a talking donkey is logically possible. Lewis's view is that what makes that proposition true is that there is a concrete, spatiotemporal world that is not our world, and that is not connected spatially, temporally, or causally, or in any other way to our world, and which contains a talking donkey.

What is a **truthmaker**? The idea of a truthmaker for a given proposition is the idea of a state of affairs that serves to make that proposition true, where a state of affairs consists either of some entity's having a property, or two or more entities' standing in some relation, or some more complex combination of these things.

Lewis's argument appears to appeal to something like the following principle:

The Strong Truthmaker Principle: For every true proposition, there is some state of affairs that is a truthmaker for that proposition.

But as Lewis was aware, at least later on, the Strong Truthmaker Principle is problematic. First of all, consider, for example, a statement that says that something **lacks** a certain property, such as

"A is not red."

Many metaphysicians hold that if *P* is a genuine property, then there is no genuine property that consists in something's **lacking** property *P*. There are, as it is said, no **negative** properties.

The reason for holding that there are no negative properties is as follows. Genuine properties are viewed as entities that are present in all of the things that have the property in question, and because of the presence of a single entity – what is referred to as a "universal" – in different particulars, all of those particulars must **exactly resemble** each other in a certain respect. But things that are, for example, not circular in shape can have a variety of shapes, and so there need not be any respect in which all things that are not circular exactly resemble each other, and in virtue of which they are not circular. So there is no property of not being circular.

But then if states of affairs consist of things having properties, and of two or more things standing in relations, what can the truthmaker be for a statement such as "A is not circular"?

But secondly, even if one either accepts the idea of **negative properties**, or, alternatively, and I think preferably, one holds that **states of affairs** can include something's **lacking a genuine property**, this will not enable one to provide truthmakers for all propositions. In particular, consider **negative existential** propositions, such as the proposition that there are no unicorns. What state of affairs could be the truthmaker for that proposition? One answer that one might try is that it is a huge **conjunctive** state of affairs, each conjunct of which consists in a state of affairs that involves some particular individual lacking the property of being a unicorn, or having the negative property of not being a unicorn. But nothing about that conjunctive state of affairs ensures that there aren't any individuals beyond those involved in the various states of affairs that enter into the conjunctive state of affairs. So such a conjunctive state of affairs cannot provide a truthmaker for the proposition that there are no unicorns.

Some philosophers, such as David Armstrong, have attempted to provide an answer. But David Lewis, following the lead of John Bigelow, was inclined to abandon the Strong Truthmaker Principle in favor of a different principle:

The Difference-Maker Principle: For any proposition *p*, and any two worlds *W* and *V*, if *p* is true in *W* but false in *V*, then either *W* must contain a truthmaker for *p* or else *V* must contain a truthmaker for $\sim p$.

The problem for Lewis's argument for possible worlds is then that when one shifts from the Strong Truthmaker Principle to the Difference-Maker Principle, the latter principle does not apply in the case of **necessarily true** propositions, since **if *p***

is a **necessarily true** proposition, there aren't possible worlds W and V such that p is true in W but false in V .

Example 2: The postulation of second-order relations between universals to serve as truthmakers for statements of laws of nature.

Method 13: The appeal to direct acquaintance.

Examples

(1) The existence of emergent, sensuous properties.

In philosophy of mind, one of the major issues concerns the existence of what are referred to as 'qualia' (Singular: 'quale' – pronounced either 'kwalay' or 'kwalee'.) Qualia are qualitative properties involved in experiences, such as colors in visual perception. Their existence is controversial, since if they exist, it is hard to see how they can be reduced to the particles, forces, properties, and relations that enter into theories in physics.

(2) The existence of a flow of time.

Some people hold that in experience one is aware of the 'flow' or 'passage' of time, where such flow or passage is something more than its merely being the case that events stand in relations of temporal priority.

(3) Phenomenological approaches to philosophy, and phenomenological states.

Philosophers who adopt a phenomenological approach typically claim that one can be directly aware of properties of psychological states other than qualia of the sensory variety. Thus it is often claimed, for example, that one can be aware of cognitive qualia, such as what it is like to be a belief, or a thought, or a desire, or that one can be aware of the intentionality of some mental states, of what it is for a mental state to be about some other state of affairs.

Method 14: The appeal to non-intellectual "seemings"

Mike Huemer, in his book *Skepticism and the Veil of Perception*, advances the following principle:

(PC) If it seems to S as if P , then S has at least prima facie justification for believing that P . (99)

If Huemer's (PC) principle is correct, then one can appeal to non-intellectual seemings in support of a variety of important metaphysical propositions, including:

- (a) There is a mind-independent physical world.
- (b) God exists.
- (c) Humans have libertarian free will.

Comment: Everything turns upon whether (PC) is sound. I believe that it is not, for a variety of reasons. For one thing, I do not think that there is any concept of **seeming** that has **all** of the properties that Huemer's (PC) principle requires.