

Kant's antinomies

Today we turn to the work of one of the most important, and also most difficult, of philosophers: Immanuel Kant.

Kant was born in 1724 in Prussia, and his philosophical work has exerted a major influence on virtually every area of the subject.

His life seems to have been fairly uneventful, even by the standards of philosophers. A popular story about Kant is that his routine in Königsberg, his home town, was so regular that people in the town set their watches by his daily walk.

The aspect of Kant's philosophy which we'll be focusing on today is his doctrine of **transcendental idealism**.

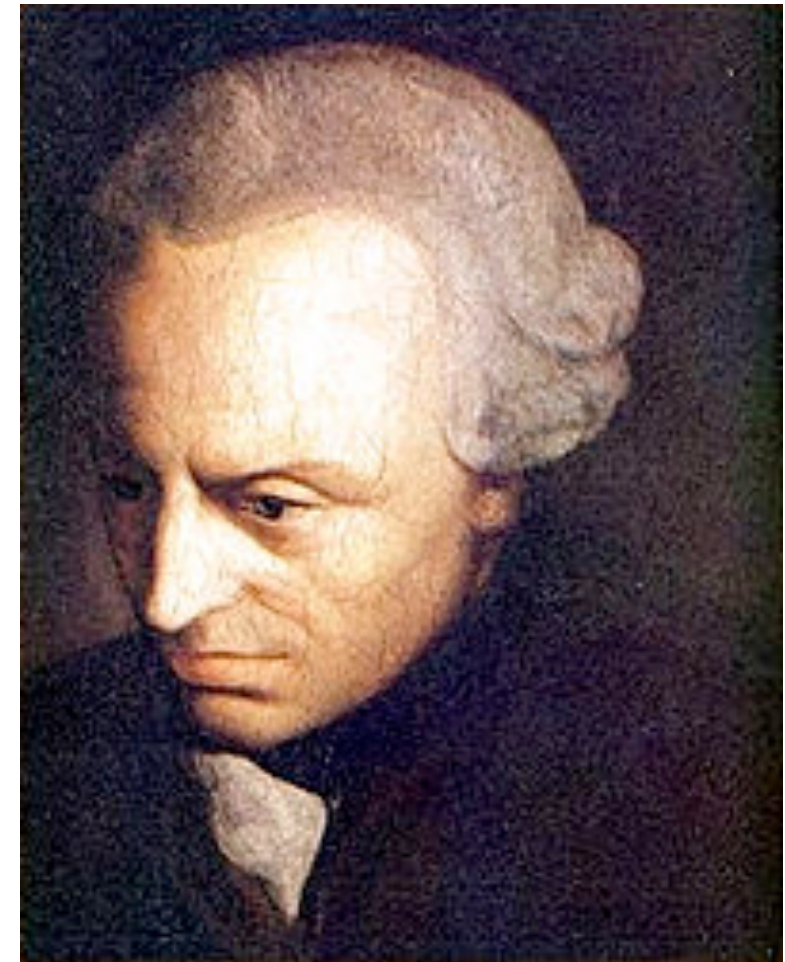
This view can be introduced via a distinction - similar to the one between subjective and objective qualities that we discussed in connection with Berkeley - between those parts of reality which exist independently of the mind, and those parts of reality which seem to owe their existence to their being involved in certain mental acts.

Kant's word for things which owe existence to the mind is a **mere appearances** or **mere phenomena**. As he says:

“Appearances do not exist in themselves but only relatively to the subject in which, so far as it has senses, they inhere.”

Kant's word for something which is not phenomenal, and instead is something whose existence does **not** depend on being felt or perceived by some mind, is **noumena**. He also calls noumena **things in themselves**, which, by contrast with phenomena,

“.. exist independently of us and our sensibility.”



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“.. exist independently of us and our sensibility.”

Using this terminology, we can then ask: which seeming aspects of reality are noumenal, and which are merely phenomenal?

We've already seen that plausible arguments can be given that pains and colors are mere appearances. But Kant's view was much more radical than that. His view was that

“everything intuited in space or time, and therefore all objects of any experience possible to us, are nothing but appearances, that is, mere representations ... which have no independent existence outside of our thoughts. This doctrine I entitle transcendental idealism.”

On the simplest interpretation of Kant's words, he is saying that everything in space and time - and hence presumably also space and time themselves - are the way we argued that pains and colors are. They are mere appearances, dependent on being perceived and represented by minds for their existence.

This is - as in Berkeley's case - an extremely radical view. But it is in an important sense less extreme than Berkeley's view. Berkeley held, essentially, that **everything** was either a mind or a mere appearance. Kant did not think this - he left open the possibility that there were things in themselves which were not minds. Kant agreed, however, with Berkeley's view that anything occupying space must be a mere appearance, and hence not independent of our minds - and this is a sharp point of disagreement with, for example, materialists, who hold that everything is a material object which exists in space.

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Kant employed several different strategies in defending his transcendental idealism. Today we will be focusing on his attempt to show that the view that objects in space exist independently of our perceptions - that they are things in themselves - leads to absurdity.

In his *Critique of Pure Reason*, Kant tried to show this by arguing that if things in space were things in themselves, one of two contrary propositions - a Thesis, and an Antithesis - would have to be true; but that in fact neither the thesis nor the antithesis can be true.

He gave four arguments of this sort; we will discuss his second. Here are the Thesis and Antithesis:

Thesis

Every composite substance in the world is made up of simple parts, and nothing anywhere exists save the simple or what is composed of the simple.

Antithesis

No composite thing in the world is made up of simple parts, and there nowhere exists in the world anything simple.

The topic of each is the question of whether matter is ultimately made up of simple parts - parts which themselves have no proper parts. The Thesis says that it is; and the Antithesis says that there are no simples. It certainly seems as though one or the other of these claims must be true; Kant's aim is to argue that **both** are false. We will first examine his arguments for this conclusion, and then ask how this conclusion might be used to argue for Kant's transcendental idealism.

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First, let's consider Kant's argument against the Thesis: that there are simple things, and that composite things are composed out of these simples.

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Thesis

Every composite substance in the world is made up of simple parts, and nothing anywhere exists save the simple or what is composed of the simple.

Proof

Assume that a composite thing (as substance) is made up of simple parts. Since all external relation, and therefore all composition of substances, is possible only in space, a space must be made up of as many parts as are contained in the composite which occupies it. Space, however, is not made up of simple parts, but of spaces. Every part of the composite must therefore occupy a space. But the absolutely first parts of every composite are simple. The simple therefore occupies a space. Now since everything real, which occupies a space, contains in itself a manifold of constituents external to one another, and is therefore composite; and since a real composite is not made up of accidents (for accidents could not exist outside one another, in the absence of substance) but of substances, it follows that the simple would be a composite of substances — which is self-contradictory.

First, let's consider Kant's argument against the Thesis: that there are simple things, and that composite things are composed out of these simples.

Kant's argument takes the following form: he assumes the thesis for purposes of argument, and tries to show that it implies a contradiction. This, if successful, is enough to show that the thesis is false.

We can divide his argument into three stages.

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But the absolutely first parts of every composite are simple.

The simple therefore occupies a space.

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We can divide his argument into three stages.

In the first stage, Kant points out that since composition is something that happens in space, every part of every composite thing must take up space:

Every part of every composite thing occupies space.

In the second stage, Kant points out that if there are simples, then they must be the basic parts of composite things:

The basic parts of every composite are simple.

from which it follows that

Simples occupy space.

The problem is that it seems that, as Kant says, everything which occupies a space must “contain in itself a manifold of constituents” - i.e., have parts:

Everything which occupies space has parts.

Which leads to an absurdity:

Every simple has parts.

As mentioned earlier, one can think of this argument as assuming the thesis and showing that it can be used to derive a false conclusion, as follows.

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1. Everything is either simple or composed of simples. (Thesis)
 2. Every part of every composite thing occupies space.
 3. The basic parts of every composite are simple. (1)
 4. Simples occupy space. (2,3)
 5. Everything which occupies space has parts.
-
- C. Every simple has parts. (4,5)

There are only two independent premises which the defender of the Thesis can challenge: 2 and 5.

To reject 2 is to say that there are simples which make up composites, but that they do not occupy any amount of space. Is this plausible?

How about 5's claim that everything which occupies space has parts? Is it true that (to put things somewhat metaphorically) every space has a left and a right half?

This is Kant's argument that the Thesis must be false. Let's turn now to Kant's proof that the Antithesis must also be false.

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Proof

Let us assume that composite substances are not made up of simple parts. If all composition be then removed in thought, no composite part, and (since we admit no simple parts) also no simple part, that is to say, nothing at all, will remain, and accordingly no substance will be given. Either, therefore, it is impossible to remove in thought all composition, or after its removal there must remain something which exists without composition, that is, the simple. In the former case the composite would not be made up of substances; composition, as applied to substances, is only an accidental relation in independence of which they must still persist as self-subsistent beings. Since this contradicts our supposition, there remains only the original supposition, that a composite of substances in the world is made up of simple parts.

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As with his argument against the Thesis, Kant begins by stating the claim to be disproven, and tries to show that this leads to absurdity:

Composites are not composed of simples.

i.e., composites are infinitely divisible.

If this were true, Kant says, then if we were to **completely decompose a composite** - i.e., separate the composite into its parts, and its parts into parts, until we have separated every composite thing into its parts - nothing would remain. So simples could remain, since given the Antithesis there are no simples. And no composites could remain, since in a complete decomposition every composite is decomposed.

If we were to completely decompose a composite, nothing would remain.

But, Kant thinks, this is impossible ("and accordingly no substance will be given"); it is impossible to destroy a composite simply by completely decomposing it:

It is impossible for complete decomposition to destroy a composite.

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This shows that the Thesis must be false. Let's turn now to Kant's proof that the Antithesis must also be false.

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2. If we were to completely decompose a composite, nothing would remain. (1)
3. It is impossible for complete decomposition to destroy a composite.

But if (3) is true, then one of two things must be true: (i) it must be impossible to completely decompose a composite, or (ii) after a complete decomposition of a composite something must remain:

Either it must be impossible to completely decompose a composite, or after a complete decomposition of a composite something must remain.

But the second of these possibilities is already ruled out by premise (2). Hence the first possibility must be true:

It is impossible to completely decompose a composite. (2,4)

But Kant thinks that this conclusion is absurd: complete decomposition is always possible. (This is part of what he means when he says that "in the former case the composite would not be made of substances.")

Hence we have derived an absurd result from the Antithesis and it, like the Thesis, must be false.

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C. It is impossible to completely decompose a composite. (2,4)

Hence we have derived an absurd result from the Antithesis and it, like the Thesis, must be false.

One might object to this argument that the conclusion is not really absurd; why not think that complete decomposition is impossible, and hence that the Antithesis is, for all we have shown, true?

However, upon reflection this is not such an easy position to maintain. Why might one think that complete decomposition is impossible? One might be tempted to argue as follows:

If there are no simples, then composites are infinitely divisible. Hence complete decomposition would involve infinitely many tasks. But infinite tasks are impossible to carry out.

However, the view that infinite tasks cannot be carried out has problematic consequences - consequences which were noticed as far back as the 5th century B.C., by Zeno of Elea.

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Zeno presented a paradox known as the “Racetrack”, which can be laid out informally as follows:

Imagine that you are trying to move from point A to point B. Suppose C is the midpoint of the distance from A to B. It seems that you have to first get from A to C, before you can get from A to B. Now suppose that D is the midpoint between A and C; just as above, it seems that you have to first get from A to D before you can get from A to C. Since space is infinitely divisible, this process can be continued indefinitely. So it seems that you need to complete an infinite series of journeys before you can travel any distance - even a very short one!

We can lay this out more carefully as an argument for the conclusion that it is impossible to move any finite distance in a finite time as follows:

1. Any distance is divisible into infinitely many smaller distances.
2. To move from a point x to a point y , one has to move through all the distances into which the distance from x to y is divisible.
3. To move from one point to another in a finite time, one has to traverse infinitely many distances in a finite time. (1,2)
4. It is impossible to traverse infinitely many distances in a finite time.

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The conclusion of this argument certainly seems to be false. But the argument appears to be valid; so it must have a false premise.

But it seems very hard to reject any of the premises **other than premise 4**. However, if we say that premise 4 is false, then we must say that, in general, infinite tasks are possible; which indicates that it should be possible to completely decompose even an infinitely complex composite object.

And, if we say this, we must agree with Kant that the conclusion of the above argument is false - which means that his *reductio* of the antithesis is successful.

At this stage, we clearly have a paradox: it seems very much that either the Thesis or the Antithesis must be true; but we have arguments that both are false.

One might, of course, respond to this paradox by trying to resist either of Kant's proofs. But Kant's aim is persuade us that a third way out is preferable.

This third way out is Kant's transcendental idealism. What we need to understand is **how** this could be a way out of the paradox.

This is perhaps best illustrated by analogy. Suppose that I am visiting a barnyard in Indiana, and come across the following beast:



This is a speckled hen so, naturally, I visually represent the hen as speckled.

But now consider my visual image of the hen. Exactly how many speckles does the hen have, in my visual image?

One wants to say something like this: the visual image includes some speckles, but there is no determinate number of speckles that the image includes. After all, human vision is not so precise that it can, at a glance, represent a hen as having some exact number of speckles - say, 84.

But suppose that we said a similar thing **about the hen**, rather than about my visual image: that the hen has some speckles, but there's no determine number of speckles that it has. This seems not to make any sense. Whatever is true of my visual image, it can't be the case that the hen has some speckles, even though there is no number of speckles that it has.

If this does not convince you, consider a visual image of a big crowd:

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If this does not convince you, consider a visual image of a big crowd:



If we consider your visual image of the crowd from this vantage point, we want to say something similar to what we said about the hen: the visual image includes a bunch of people, but there is no exact number of people that it represents.

But we clearly cannot say this about **the stadium itself**: if there are a bunch of people in the stadium, then there must be some precise number of people that are in the stadium.

The key question in the present context is: **why are we inclined to treat the visual image of the stadium differently in this respect than the stadium itself?**

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It is not easy to know how exactly to answer this question, but it is at least tempting to say something like the following:

Look, a visual image is a **mere appearance**; it does not have any existence apart from the relevant visual experience. Mere appearances, or representations, of this sort don't have to be completely determinate, and usually they are not. They can "leave certain things open" in a way that reality can't be "open" or "indeterminate."

In this respect they are just like other representations, like novels. There doesn't have to be a fact of the matter whether Sherlock Holmes preferred spaghetti to linguini, does there?

But remember that the central claim of Kant's transcendental idealism is that things in space are also mere appearances, or mere representations. If transcendental idealism is true, we might be inclined to say something about the question of infinite divisibility similar to what we want to say about visual images.

We might say: every experience of something extended in space represents it as having parts, and hence as divisible. But does that experience represent it as infinitely divisible, or as having, ultimately, simple parts? The answer would be: neither. This is something which is left open by our representations, and would be left open by any series of representations - just as our representations leave open the exact number of speckles on the hen or people in the stadium.

The difference between the two cases is that if transcendental idealism is true, there is no thing in itself, no noumena existing independently of our representations, which is extended in space and really must be infinitely divisible or not. After all, as Kant says:

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"everything intuited in space or time, and therefore all objects of any experience possible to us, are nothing but appearances, that is, mere representations ... which have no independent existence outside of our thoughts. This doctrine I entitle transcendental idealism."

Kant, then, gives us an argument quite different than Berkeley's for the idealist claim that objects in space and time are dependent on the existence of minds: the argument is that the idea of independently existing objects in space leads to a contradiction to which only idealism can offer a satisfactory solution.