

## Kant: How is a Synthetic A Priori Judgment Possible?

This rather obtuse question stands at the intellectual boundary between the early modern and modern worlds. The question is the philosophical equivalent of a 'shot heard around the world.' You can find it at the heart of how we 'moderns' (among whom I include the so-called 'post-moderns') distinguish between fundamentally basic things like empirical fact and moral value. The question frames the boundaries of acceptable public debate, including where the line between public and private is drawn. It divides our cultural world up into progressive and conservative forces.

The title question was first asked by a gregarious, though mild-mannered, Prussian (or German) professor of philosophy by the name of Immanuel Kant.

Let's first start with what a synthetic *a priori* judgment is.

Kant divided all of the bits of knowledge floating around in a person's head into three types. The first, analytic *a priori* judgments, designate knowledge that are 'self-contained.' These are the sort of judgments that you can make *in and of itself* without reference to anything 'external.' An example of an analytic *a priori* judgment is 'squares have four sides' or 'all bachelors are unmarried.' Squares *have* four sides. Bachelors *are* unmarried. If the object didn't have four sides, it wouldn't be a square. The same goes for bachelors: if the man in question was married, they wouldn't be a bachelor. They'd be a married man.

This, of course, doesn't seem like a very profound revelation. The intellectual traction of Kant's argument comes when you start comparing the different forms of judgment.

The exact opposite of an analytic *a priori* judgment are the synthetic *a posteriori* judgments. These judgments that you make with reference to 'something' external. Examples would include: 'The sky is blue,' 'Kant was born in 1724,' or 'Game of Thrones is fantasy fiction.' The sky *might be* blue. Kant *might have been* born in 1724. Game of Thrones *might be* fantasy fiction. All these things might be true. The difference in this case is that you will have to go and find out whether thus and such is *actually* the case. The sky, for example, might be grey or black, depending on the time or day or the weather conditions. Kant might have been born in 1723 or 1725. The sources that we possess might be wrong. And Game of Thrones might be better described as a medieval soap opera with fantasy fiction elements (like dragons, White Walkers, and shadows that look like Stannis Baratheon).

Note carefully the differences. Analytic *a priori* judgments are necessary in that they are always everywhere true. Synthetic *a posteriori* judgments are contingent insofar as they can change as situations change — though they don't necessarily have to. The question that concerns us here is whether these two forms of judgment can account for all of our knowledge of the world. And evidently they do not.

Take, for example, the prediction of a solar eclipse. We can predict when and where an solar eclipse will be visible with an amazing degree of accuracy. Our ability to predict, however,

obviously does not fall into the category of an analytic *a priori* judgment. An eclipse is not defined essentially by its being visible then and there. It might be visible somewhen and somewhere else, but that doesn't negate the fact that it still is an eclipse. Our ability to predict also does not fit into the category of a synthetic *a posteriori* judgment. What is at stake is our ability to predict that the eclipse will happen. We don't need to wait for it to happen to see if it actually does. We already *know* it is going to happen before it does. Our calculations are good enough to predict these things. But how do we know it is going to happen? How can we be certain?

Or, more to the point, how are synthetic *a priori* judgments possible? (This is not a small matter, as you should now be able to see.)

Kant was fully aware of the significance of his question. In his book *The Prolegomena to Any Future Metaphysic* (1784), he charged all his readers to consider his question carefully before that made any metaphysical claims. In the term 'metaphysical', he included claims about the nature of God (and presumably questions how many angels could dance on the head of pin) as well as the fundamental constitution of the natural world. If so-called scientists were going to claim anything with certainty about the world, Kant wanted them to show that they had understood what was at stake.

Kant's question (which was formulated with the help of Newton's *Principia Mathematica*, which first sets out, as we presently understand them, The Three Laws of Motion and The Law of Gravity) explains we no longer think of the planets as moving through an ether or think about heat in terms of phlogiston or think of biological species as always and everywhere the same. In the longer run, it explains why we don't think the sun, moon, planets and stars evolve around the earth or that the orbits of 'celestial' objects are perfectly circular.

The question puts a break on attributing divine eternity, or self-sameness (which takes the form of an analytic *a priori* judgment), to anything in the natural world. Once you do that, you start to observe how things actually behave. The question also directed people to think more carefully on those features of the world that they could claim to know with certainty.

Kant intends his third category of synthetic *a priori* judgments to show how we can be confident in the predictive claims of modern natural scientific inquiry, which are peculiar for being both necessary in the sense that they purport to be always everywhere true, but which hold good for contingent situations that can change.

How are they possible? Kant says: by the *a priori* forms of perception, space and time, and the *a priori* categories of understanding, quantity, quality, relation, and modality. The latter categories need not detain us very long. Suffice it to say that they are a straight-jacket on Kant's thinking in the way that they suppose the world can be combined and divided in order to make it intelligible. The former forms, however, are very interesting. To say that space and time are a *a priori* form of perception is to say that every potential object of perception is locatable somewhere in space and time relative to other spatiotemporal objects (and so, by implication, is not divinely self-same).

By every potential object of perception, I mean absolutely everything one might come across in the universe that is 14 billion odd years old and 10s of billions of light-years across. From the atoms to the primordial soup, to the Andromeda Galaxy and everything else in between.

Kant didn't explicitly mean this, of course. His conception of the actual dimension of the spatiotemporal extent of the universe was comparatively smaller, in line with the science of the times. But the basic principle, that space and time are *a priori* forms of perception, remain the same for Kant as it does for us. The actual dimensions of the universe are an *a posteriori* consideration — not something presupposed, but determined after the fact. So Kant's question, we may say, helps to explain how it is possible for us to think of the universe and all things in it on these terms.

The problem with Kant's question, as Kant himself well knew, was that moral judgments regarding human thought and action always take the form of an analytic *a priori* judgment. Persons can marshal all the evidence they want to 'prove' that something is good or bad that they want, but at the end of the day we think things are good or bad *because we think so*. There is a 'subjective' element in a moral judgment that cannot be reduced to an objective state of affairs. Many reasons can be offered, for example, for why murder is wrong. Because another person's life ends much too soon. Because you will go to jail. Because it is not conducive to social harmony to be arbitrarily off-ing members of a community. And so on, and so forth. But all of these are synthetic *a posteriori* reasons, none of which are ultimately persuasive in every case. If, on the other hand, we say that murder is wrong because it is a violation of an intrinsic human right — namely, the right to life — then we have offered an analytic *a priori* reason. It is wrong to murder a person *because* it is wrong to murder a person.

The problem of moral judgments is actually a little more difficult than for which even Kant allowed. His question implicitly assumes that the human world can be divided into two separate worlds: 'the starry heavens above' (by which he meant the natural order of the world given in space and time) and 'the moral law within' (by which he meant something like a universally accessible, rationally determinable standard for moral conduct). This distinction creates a huge problem for moral judgment. Why? Moral judgment is applied to human thought and action, which is always and everywhere locatable in space and time.

Take the case of murder. Murder is a grossly immoral act against a person's body. Bodies are locatable in space and time. They just are. There is no way around it. There is no such thing as murder in the abstract. Jesus suggested that murder in one's heart is tantamount to actual murder, but this is not a prosecutable offence. Same goes for stealing, destroying property, defaming, and so on. These are all acts committed against the bodies of persons or 'bodies' in a person's possession.

So in the case of the moral judgments regarding the specifically human body, you have this curious situation where divine self-sameness lives on in space and time. Kant doesn't account for it. His question, in fact, cannot account for it. We 'moderns,' who like to think like Kant in these matters and pretend there is a hard and fast distinction between facts and values, aren't able to identify precisely where the line between them lies either. We 'moderns' all can agree in very rough terms about what constitutes a scientific fact. But we disagree vehemently about how these relate to our values — and, more specifically, to which set of values.

People will always find reasons, of course, to talk past each other. The reasons they use today go back to Kant's critical question. And that may help to shed some light on the present state of public discussion.

experience, and has nothing to do with how objects are independently of being experienced.

(This is not to say that the *object* doesn't likewise contribute *something* to our experience of it. Rather, what the object contributes can't be known *a priori*.)

Now, the fundamental question in understanding Kant is understanding what he means when he says that we know only appearances and not things in themselves (that is, in understanding what *transcendental idealism* really means). On some readings of Kant (not mine) appearances are essentially just collections of ideas that exist only in the mind. So, on this reading, Kant's view turns out to be much like Locke's—i.e., that we directly experience only things that exist in our minds, and merely infer the existence of a mind-independent reality that causes those appearances in our minds. But on this view, Kant is subject to the same criticisms as is Locke. If Locke's view "collapses" into Berkeleyan idealism, then so would Kant's.

But this is a misunderstanding of Kant. When Kant says that we know only appearances and not things in themselves, he does not mean that the *objects* of experience are mind-dependent (that would lead to Berkeley or Hume). Rather, he means that the *experience* of objects is (partly) mind-dependent. That is, transcendental idealism (on this reading) is *not* the view that the objects that we perceive are mind-independent, but instead the view that everything that we can know about them must conform to our subjective modes of experience. That is, Kant is not claiming that the *objects* of experience are different from what we initially thought (i.e., that they are mind-dependent objects rather than mind-independent objects), but rather that the *experience* of objects is different from what we previously thought (i.e., we do not know-as-they-are objects, but instead only know-as-they-appear objects).

Now, according to Kant, knowledge of an object must always have a "sensible" aspect and a conceptual aspect. Kant believes that in each case, there is a subjective contribution that can be known *a priori*. Space and time, Kant says, are the pure forms of sensible intuition. That is, space and time are not parts of reality in itself, but are simply due to the ways that we organize the sensory "data" that we receive in sense experience. So, in Kant's language, space and time are transcendently ideal.

But there is another subjective contribution to experience. Once we have organized the sensory data into a spatio-temporal array, we must still *interpret* it as an experience of *objects*. Kant thinks that there are rules for how we must necessarily do this interpreting. These rules lie "in us" and are necessary for the possibility of any experience. These are what are known as the "Categories of the Understanding." Their origins, Kant thinks, are in (what you might call) the categories of judgments, i.e., of statements or propositions. Kant claims that all experience involves judgment (i.e., "judging" that this thing is a cup, for example). So, the forms of experience will mirror the forms of judgments. And consequently, knowledge of the necessary forms of judgments (i.e., of statements) will lead to knowledge of the formal conditions necessary to experience something *as an object*.

Kant's Question: How is synthetic a priori knowledge possible?

(Note: synthetic statements are statements whose negations are not logically contradictory. Synthetic statements are not "true by definition," but purport to say something substantive (non-trivial) about how the world is.

We have a priori knowledge of a statement when we do not need to consult sense experience to justify our belief that the statement is true. We have a posteriori knowledge of a statement if we do need to consult sense experience to justify our belief that the statement is true.

According to Kant, one thing that Hume has correctly shown is that we do not have a posteriori knowledge of any claim that involves either necessity or universality, e.g., that when billiard ball B hits billiard ball A, A necessarily moves; or that all events have causes (universality). Kant agrees with Hume that sense experience can only show us that something did happen (not that it happened necessarily) and that experience can never justify any claim purported to be universally true, since we have not experienced everything. So, Kant thinks that any claim that purports to be necessarily true or universally true must be known a priori, if known at all.

Analytic statements (if true) are necessarily true, so they must be known a priori. The disagreement between Kant and Hume concerns whether or not we have a priori knowledge of any synthetic statements. Hume did not see how this could be possible. Kant's goal is to explain how it could be possible.

Finally, metaphysical knowledge, -if we have any-, would be synthetic a priori knowledge—non-trivial knowledge about reality that can be justified without appeal to sense experience. So, if Kant can show how synthetic a priori knowledge is possible, he will have shown how metaphysical knowledge is possible. But not all synthetic a priori knowledge is metaphysical. The claims of arithmetic and geometry are synthetic a priori, but not metaphysical.)

Kant's answer: Synthetic a priori knowledge is possible because all knowledge is only of appearances (which must conform to our modes of experience) and not of independently real things in themselves (which are independent of our modes of experience). This claim, that we know only appearances and not things in themselves, is known as Kant's *transcendental idealism*. So Kant's claim is that if in experience we knew things as they were in themselves, then Hume would be correct, and there could be no synthetic a priori knowledge. But since we know instead only appearances (i.e., *how* things appear to us), and since how things appear to us must conform to our subjective modes of experience, we can know in advance of experience that these experiences will (necessarily and universally) conform to the only ways in which we could possibly know or experience objects. So, synthetic a priori knowledge is possible, but only because certain aspects of our experience of objects reflects something that *we* (i.e., our mind's) contribute to that