

## **Bhaskar *contra* Kant: Why Critical Realism is not Transcendental Realism**

Let me start by thanking Dan Little for inviting me to write this guest-post. I'd like to take the opportunity to examine Roy Bhaskar's arguments for critical realism, in particular those presented in his [A Realist Theory of Science](#) (*RTS*). The aim of that work is remarkable: to establish by transcendental argument the mind-independence and structured nature of the objects of science.

Bhaskar's views are explicitly grounded in Kantian arguments. But the rejection of Kantian transcendental idealism is a central feature of Bhaskar's critical realism. For Bhaskar, critical realism is also transcendental realism, a position he posits as an alternative to both Kantian and (neo-)Humean philosophy of science.

**Transcendental idealism** is, at minimum, the idea that the conditions on human cognition – especially space and time, the forms of human intuition – in part *determine* the objects of knowledge. According to transcendental idealism, we cannot know things as they are 'in themselves', but rather only as they appear to beings like us. Kant thus distinguishes between things-in-themselves, the epistemically inaccessible *noumena*, and *phenomena*, things as they appear to us given the conditions on human cognition. The former are **transcendentally real** – unknowable but entirely mind-independent. The latter are **empirically real** – knowable, but in part dependent on the conditions on cognition. For Kant, science can study only the empirically real: to study the transcendentally real would require that we transcend the conditions on our own cognition – that we erase the distinction between the knower and the object of knowledge – a mystical feat of which we are evidently incapable.

Bhaskar makes a different distinction, between the **intransitive** and the **transitive**. Intransitive objects do not depend on human activity; they are entirely mind-independent (*RTS* 21). To say that some object is intransitive is therefore equivalent to saying that it is *transcendentally* real (this is clear throughout *RTS*; see also [The Possibility of Naturalism](#) 6). Hence, it is Bhaskar's aim to prove the transcendental reality (intransitivity) of the objects of science and perception. According to Bhaskar, we can know the objects of science *as they are in themselves*.

Bhaskar defends this ambitious thesis by means of transcendental arguments. An argument is transcendental insofar as it shows that some commonly accepted claim *x necessarily presupposes* a controversial claim *y*; where *y* is the conclusion of the argument. Thus, a transcendental argument claims that its conclusion is the only possible way to account for the uncontroversial phenomenon which it takes as its premise. Unlike other arguments for scientific realism, then, Bhaskar's make a claim to necessity.

Bhaskar's analysis of perception contains the first of his transcendental arguments: call it **the argument from perception**. It has roughly the following form: multiple agents can, at the same time, perceive the same object in different ways (*x*). This could be possible only given the mind-independence of the object (*y*). Therefore, given the occurrence of differential perception, the objects of perception must be transcendentially real.

Here's Bhaskar himself making the argument:

If changing experience of objects is to be possible, objects must have a distinct being in space and time from the experience of which they are the objects. For Kepler to see the

rim of the earth drop away, while Tycho Brahe watches the sun rise, we must suppose that there is something they both see. (*RTS*, 31)

Earlier, he appears to be making the even stronger claim that perception *simpliciter* presupposes the intransitivity of the perceived:

The intelligibility of sense-perception presupposes the intransitivity of the object perceived. For it is in the independent occurrence or existence of such objects that the meaning of ‘perception’, and the epistemic significance of perception, lies. (*Ibid.*)

Let’s take the argument from perception to involve the weaker claim that differential experience by different agents necessarily presupposes the intransitive nature of the object perceived. If the argument fails to ground this claim, we know *a fortiori* that it fails to ground the stronger conclusion.

If it is possible for Brahe and Kepler to have different perceptions of the same object, there must *be* an object which they both see: this much seems clear. But the inference from this to the object’s *intransitivity* is fallacious, for the presupposition that the objects of sense-perception are empirically real is sufficient to explain differential perception. For the transcendental idealist, there *is* something which Brahe and Kepler both see: they both see the sun. The sun is empirically real, i.e., it partially depends on the conditions on human cognition. But Brahe and Kepler, being human, *share* the conditions on cognition and interact with the same mind-independent reality. Thus, there is nothing unintelligible about their different perceptions under the assumption that what they perceive is empirically real (partially mind-dependent). Bhaskar supposes that we must assume it is also transcendently real (i.e., that Brahe and Kepler see the sun ‘as it is in-itself’) but does nothing to establish this. The argument

from perception does not show that the objects of knowledge must be intransitive given the occurrence of (differential) perception. It fails as a transcendental argument for critical realism.

Bhaskar's second argument is much more central to the critical realist endeavor, and it is presented in his analysis of experimental activity. Call it the **argument from experimentation**.

For Bhaskar, "two essential functions" are involved in an experiment:

First, [the experimental scientist] must trigger the mechanism under study to ensure that it is active; and secondly he must prevent any interference with the operation of the mechanism. [...] Both involve changing or being prepared to change the 'course of nature', i.e. the sequence of events that would otherwise have occurred. [...] Only if the mechanism is active and the system in which it operates is closed can scientists in general record a unique relationship between the antecedent and consequent of a lawlike statement. (*RTS*, 53)

Bhaskar notes that the experimenter who sets up a causally closed system thereby becomes causally responsible for a constant conjunction of events, but not for the underlying causal mechanism. *Contra* Humean accounts of law, Bhaskar's account of experimentation entails an ontological distinction between constant conjunctions and causal mechanisms.

For Bhaskar, the intelligibility of such experimental activity can be used to transcendently establish the intransitivity of the objects of science. "As a piece of philosophy," he claims, "we can say (given that science occurs) that some real things and generative mechanisms must exist (and act)," where by 'real' Bhaskar means 'intransitive' (*RTS* 52). In "[Transcendental Realisms in the Philosophy of Science: On Bhaskar and Cartwright](#)," Stephen Clarke provides the following helpful gloss on the argument:

Premise 1: Scientific explanatory practice (in particular the practice of exporting explanations from laboratory circumstances to general circumstances) is experienced by us as intelligible.

Premise 2: Scientific explanatory practice could not be experienced by us as intelligible unless causal powers exist and those causal powers are governed by universal laws of nature.

---

Conclusion: causal powers exist and are governed by universal laws of nature. (Clarke 302)

Clarke calls this an “attack on idealism” (303) but Bhaskar explicitly frames it as an attack on *transcendental* idealism (RTS 27). Clarke’s gloss is telling, for it is indeed unclear how the argument could work as an attack on the latter view.

Bhaskar argues that we must suppose the world to be intransitively ordered if scientific explanatory practice is to be intelligible. But, he claims, “transcendental idealism maintains that this order is actually imposed by men in their cognitive activity” (RTS 27). And if order were imposed in cognitive activity, *all* experience would be ordered, eliminating the need for explanatory export from the closed causal systems of experimentation to the open causal systems of uncontrolled experience (RTS 27, Clarke 303).

This argument is invalid. It does not follow from the premise that all experience is ordered that there is no need for explanatory export from closed to open causal systems. To the contrary: the very occurrence of such export *presupposes* that experience is ordered. After all, the aim of experimentation is to discover causal mechanisms and universal laws of nature. But to suppose that the causal mechanism discovered in a replicable scientific experiment generalizes to

open causal systems is to suppose that the same laws operate in open causal systems, even if other mechanisms sometimes obscure them. And to presuppose that there are such things as knowable *universal* laws of nature – operative in closed and open causal systems alike – *just is* to presuppose that all experience is ordered. The ordered nature of experience is, therefore, a necessary presupposition for experimentation.

Now there are at least two ways in which experience could be thus ordered: because order is imposed on it in cognitive activity, or because the order is intransitive. Bhaskar supposes the former would render experimentation superfluous. This is a flummoxing claim to make. Surely Bhaskar does not mean to accuse the transcendental idealist of the view that the projection of order onto the world is somehow a *conscious* activity – that we *already know* every scientific truth. That would render experimentation superfluous, but I don't think it is a view anybody defends. Science is as much a process of gradual discovery for the Kantian as it is for everyone else.

Maybe confusion arises from the fact that for Kantians genuinely *universal* scientific laws must be synthetic *a-priori*. Perhaps Bhaskar supposes that, because positing a universal law involves making a claim to synthetic a-priori knowledge, we should be able to derive the laws of nature by a-priori deduction, rendering experimentation superfluous. But this would be a misunderstanding of transcendental idealism. Suppose that because my perceptions of sparks and wood are frequently followed by perceptions of conflagration, I come to associate sparks and wood with fire. I can ask whether this association is subjective or objective. To claim that it is objective is, for the Kantian, to apply one of the Categories. For instance, one way of taking my association of sparks and dry wood with fire to be objective is to make a claim like “sparks and wood *cause* fire,” applying the Category of causation. This claim is a-priori insofar as it involves

the application of an a-priori (pure) concept, a-posteriori insofar as it is *about* the objects of experience.

Transcendental idealism entails we are *entitled* to make causal claims, but it does not entail the empirical *truth* of our claims. Experimentation with sparks and wood may lead me to modify my claim. For instance, I may discover that sparks and wet wood do not jointly give rise to fire, and adjust my claim to “sparks and *dry* wood cause fire.” Further experimentation may lead to further refinements. I could not have deduced any of these conclusions about sparks and wood *a-priori*. The thesis that scientific claims have an a-priori component does not render experimentation either superfluous or unintelligible.

As it turns out, Bhaskar supposes that, for the Kantian, causal mechanisms are mere “figment[s] of the imagination” (*RTS* 45). If true, this would provide an independent argument against the intelligibility of experimentation on a transcendently idealist account. But, as should by now be clear, this is an incorrect characterization of transcendental idealism. It is only for skeptics and solipsistic idealists that causal mechanisms are figments of the imagination. Kantians and transcendental realists agree causal mechanisms exist: they disagree only about whether they are transcendently or empirically real.

Bhaskar’s transcendental arguments for critical realism fail, and the Kantian view to which Bhaskar opposes his own is frequently misinterpreted. Most problematically, the meaning of the Kantian distinction between the transcendently and empirically real is ignored, and the latter category is treated as if it contained only figments of our imagination. Bhaskar maintains that epistemic access to the transcendently real is a necessary condition for science and perception. But, as we have seen, it is merely epistemic access to the empirically real that is

necessary. Bhaskar does not prove that we have knowledge of things as they are in-themselves.

Critical realism is not transcendental realism.