



A Dilemma for the Scientific Realist

Author(s): Howard Sankey

Source: *Spontaneous Generations: A Journal for the History and Philosophy of Science*, Vol. 9, No. 1 (2018) 65-67.

Published by: The University of Toronto

DOI: [10.4245/sponge.v9i1.26352](https://doi.org/10.4245/sponge.v9i1.26352)

EDITORIAL OFFICES

Institute for the History and Philosophy of Science and Technology
Room 316 Victoria College, 91 Charles Street West
Toronto, Ontario, Canada M5S 1K7
hapsat.society@utoronto.ca

Published online at jps.library.utoronto.ca/index.php/SpontaneousGenerations
ISSN 1913 0465

Founded in 2006, *Spontaneous Generations* is an online academic journal published by graduate students at the Institute for the History and Philosophy of Science and Technology, University of Toronto. There is no subscription or membership fee. *Spontaneous Generations* provides immediate open access to its content on the principle that making research freely available to the public supports a greater global exchange of knowledge.

A Dilemma for the Scientific Realist^{*}

Howard Sankey[†]

Contemporary discussion of scientific realism is fuelled by debate between scientific realists and advocates of various forms of anti-realism. Arguments for and against scientific realism have led to vigorous debate and the development of compromise positions. Yet an unresolved tension remains at the heart of the realist position. I wish to draw attention to a problem that divides scientific realists among themselves. The problem stems from the relation between science and common sense.

As traditionally understood, scientific realism is a view about the aim of science. The aim of science is to discover the truth about the world. Scientific progress consists in progress toward that aim. Progress is either increase in the stock of truths known about the world or convergence on a true theory of the world. Truth is correspondence with reality. A claim about the world is true just in case the world is the way it is said to be. The truth sought by science is not restricted to truth at the empirical level of what is observable by the human senses unaided. Science seeks and succeeds in discovering truths about theoretical entities, properties and states of affairs that are unable to be detected by means of observation alone. The world in which these entities, properties, and states of affairs are found is an objective reality that exists independently of human thought, language, or conceptual activity.

Scientific realism may be distinguished from common-sense realism about the items of ordinary experience. According to common-sense realism, the ordinary items with which we interact on a daily basis are real. They exist independently of human cognitive activity. We arrive at knowledge of such things by means of our senses. Sometimes our senses lead us astray. But for the most part they are reliable. Some ordinary things are artifacts made by humans. Others occur naturally. Items of ordinary common sense

^{*} Received February 3, 2016. Accepted February 3, 2016.

[†] Howard Sankey is Associate Professor of Philosophy in the School of Historical and Philosophical Studies at the University of Melbourne. He works in epistemology and philosophy of science, and has published books and articles on such topics as incommensurability, rational theory-choice, epistemic relativism and scientific realism. His current work relates to the philosophy of perception, the nature of perceptual warrant, and the role that considerations about perception may play in defence of both common-sense realism and scientific realism.

do not depend for their continued existence on human mental activity. Whereas scientific realism is opposed to anti-realism about theoretical entities, common-sense realism stands opposed to skepticism about the external world and idealist denials of the mind-independent status of ordinary objects.

What is the relation between scientific realism and common-sense realism? They may seem to go hand in hand. Yet a moment's reflection reveals the situation is more complicated. Some argue that there is conflict between science and common sense. Indeed, some take common sense to be an outmoded theory passed down by our primitive forebears. On this view, science shows common sense to be mistaken. With the advance of science, common sense is rejected. As we enter the brave new world of modern science, we bid farewell to the erroneous beliefs of our ancestors.

The idea of a conflict between science and common sense acquires special significance in the context of scientific realism. To see this, suppose that there is indeed a conflict between what science tells us and the dictates of common sense. To use Eddington's example, suppose science tells us that the "substantial" table of common sense is "nearly all empty space" rather than solid matter (Eddington 1933, xii). A realist stance advises us to take what science tells us as the truth about the world. But what if science conflicts with common sense? Both cannot be true. If we accept what science tells us, and science conflicts with common sense, we must reject common sense as mistaken. In this way, a realist stance toward science leads to the overthrow of common sense. Common-sense realism awaits a similar fate.

Some scientific realists are eliminativists about common sense. They will welcome this result. But I think it spells trouble. The trouble is due to the fact that observation provides the evidential basis for science. The empirical evidence on which science is based is observational, deriving either from immediate sense perception or from instrumentation. But observation is part of common sense. Observation by means of the senses is the primary means by which we obtain knowledge of the ordinary objects of common sense. If common sense is to be rejected, observation must be rejected as well. Without common sense, the evidential basis for science disappears. We would have no basis to accept science in the first place. Worse: if we have no basis to accept science, we have no basis to reject common sense. So we must accept common sense instead of science. To reject common sense on the basis of science is self-defeating.

This leads to the following dilemma. On the one hand, we may both accept scientific realism and agree that there is a conflict between science and common sense. If we do this, we remove the evidential basis for science and have no reason to accept science in the first place. On the other hand, we may accept scientific realism and endorse common sense. If we do this,

we must reject the conflict between science and common sense. But if we seek to reconcile science with common sense, we must show that the conflict between science and common sense is an illusion.

The first option requires the scientific realist to develop an account of the evidential basis of science in which ordinary experience plays no role. I see little meaningful prospect for this. I prefer instead to explore the second option. Is there any way to reconcile science and common sense?

In fact, the ordinary conception of common sense is ambiguous. There is the practical skill of the craftsman or technician. There are widely held beliefs found throughout a culture in a historical period. There are the rudimentary sense-based beliefs about our immediate surroundings on which everyday practical actions are based. The ordinary conception of common sense captures all three of these things.

To resolve the dilemma we must focus on the rudimentary form of common sense. One may possess common sense without possessing technical skill or craft. The widely held beliefs of a culture may be eliminated with the advance of science. But sense-based beliefs involved in practical interaction with our immediate environment have a more solid basis. The advance of science may lead to the overthrow of the widely held beliefs of particular cultures. But beliefs closely integrated with everyday practical action are less likely to be rejected. I call this form of common sense “basic common sense.” For the most part, it survives the advance of science. It provides the evidential basis on which science is founded. Scientific realism and basic common sense go hand in hand.¹

HOWARD SANKEY
University of Melbourne
Parkville, Victoria
Australia 3010
chs@unimelb.edu.au

REFERENCES

- Eddington, Arthur. 1933. *The Nature of the Physical World*. Cambridge: Cambridge University Press.
Sankey, Howard. 2014. Scientific Realism and Basic Common Sense. *Kairos* 10: 11-23.

¹ For details, see Sankey (2014).