The naturalism of the sciences

Gregory W. Dawes*, Tiddy Smith

Department of Philosophy, University of Otago, Dunedin 9054, New Zealand

ARTICLE INFO

Article history:
Received 9 February 2017
Received in revised form
28 September 2017
Available online xxx

ABSTRACT

The sciences are characterized by what is sometimes called a “methodological naturalism,” which disregards talk of divine agency. In response to those who argue that this reflects a dogmatic materialism, a number of philosophers have offered a pragmatic defense. The naturalism of the sciences, they argue, is provisional and defeasible: it is justified by the fact that unsuccessful theistic explanations have been superseded by successful natural ones. But this defense is inconsistent with the history of the sciences. The sciences have always exhibited what we call a domain naturalism. They have never invoked divine agency, but have always focused on the causal structure of the natural world. It is not the case, therefore, that the sciences once employed theistic explanations and then abandoned them. The naturalism of the sciences is as old as science itself.

© 2018 Elsevier Ltd. All rights reserved.

1. Debates regarding naturalism

Debates regarding naturalism in philosophy are hardly new. Their recent starting point has been the work of W. V. O. Quine (1908–2000), who defined naturalism as “the recognition that it is within science itself, and not in some prior philosophy, that reality is to be identified and described” (Quine, 1981, p. 21). His idea that there is no “first philosophy” — no foundational discipline distinct from the sciences that could justify or criticize their methods — has spurred a wide-ranging research program whose aim is to “naturalize” philosophy.

Quine’s naturalism was first and foremost methodological, having to do with how we attain knowledge. It started from the idea that “the most we can reasonably seek in support of an inventory and description of reality is testability of observable consequences” (Quine, 1995, p. 252). If this is true, we would expect the sciences to be our most reliable sources of knowledge. But Quine also held that insofar as the sciences are a reliable source of knowledge, they lend support to an ontological naturalism. This involves a metaphysical claim, often characterized as the view that all that exists is identical with (or at least supervenient on) the physical (Papineau, 2015, sect. 1.1). Quine’s version was a little more liberal. It admitted the existence not only of physical entities but also of the abstract objects of mathematics (in particular, sets), for these were (Quine believed) essential to the practice of science. This means that Quinean naturalism is an a posteriori view. It is not committed in advance to a certain ontology, but accepts all and only the kinds of entities required by our most successful sciences. It is also a provisional commitment, being open to revision if the sciences were to require radically new kinds of entities, forces, or relations (Quine, 1995, p. 252).

Within discussions of science and religion, the discussion of naturalism has taken a rather different turn (Papineau, 2015, sect. 2.1). It has been focused on the sciences themselves and (in particular) on the question of whether the sciences permit appeals to a supernatural agent. As a matter of fact, the scientific community would not take seriously a proposed explanation that invoked divine action. The question is whether this exclusion of the supernatural is essential to the practice of science. If it is not, then it could be set aside to allow for the admission of (successful) theistic explanations into our body of scientific theory. If, for instance, intelligent design theory turned out to be the best available explanation of the origin of living beings, then it could be admitted to the public school science curriculum.

While many scientists and philosophers have tried to defend the naturalism of the sciences, few of their defenses withstand close scrutiny. It is not enough, for example, to claim that the sciences are naturalistic “by definition.” Either there is a reason for defining scientific knowledge in this way or it is (as its critics allege) a merely dogmatic commitment (Johnson, 1995, p. 105; Plantinga, 2011, p. 311). Nor is it true that theistic hypotheses are necessarily untenable. The idea that God created the world in six days, beginning on October 22, 4004 BCE is eminently testable. Indeed it has been falsified. Other arguments can be countered by historical

* Corresponding author.
E-mail addresses: gregory.dawes@otago.ac.nz (G.W. Dawes), tim.smith@otago.ac.nz (T. Smith).

https://doi.org/10.1016/j.shpsa.2017.11.012
0039-1675/© 2018 Elsevier Ltd. All rights reserved.

Please cite this article in press as: Dawes, G. W., & Smith, T., , The naturalism of the sciences, Studies in History and Philosophy of Science (2017), https://doi.org/10.1016/j.shpsa.2017.11.012
2.1. A revision of previous views

Making clear the nature of our argument.

Science itself.

Whatever one makes of the naturalism of the sciences, it is as old as doing them. They never employed such explanations at all.

Appeals to divine action have sometimes worked in this way, but the latter belief was not thought to threaten the former: natural philosophers focused on the predictable ways, even if he could occasionally work miracles. But yes, scientists, as scientists, have always avoided invoking divine action, but they should now be permitted to do so. All we want to do here is to show how the sciences have operated, from the very inception of scientific inquiry, and to spell out the implications of this stance. As we have just suggested, the evidence we shall produce does not, in itself, rule out a different understanding of science. As will be evident, we are sympathetic to a naturalistic view of scientific inquiry and would like to defend it. But the present paper is, at best, preliminary to such a defense. All we aim to do here is to show how the sciences have operated, from the very inception of scientific inquiry, and to spell out the implications of this stance. As we have just suggested, the evidence we shall produce does not, in itself, rule out a different understanding of science. There would be nothing self-contradictory in a view that said, “Yes, scientists, as scientists, have always avoided invoking divine action, but they should now be permitted to do so.” We are trying to replace natural explanations with theistic ones — our argument is far from trivial. It does not prove the opponents of scientific naturalism to be wrong (see sect. 4.3). But it does show that their view entails a radical revision of the traditional aims of scientific inquiry.

2.2. A particular kind of naturalism

A second matter to note is that what we are discussing here is a very particular kind of naturalism. It has to do with the exclusion from science of appeals to divine agency. We are assuming that the divine agent in question is a supernatural agent, in the strict sense of that term: a being who transcends the natural order (Saler, 1977, pp. 46–47). It may be that the sciences are characterized by a broader kind of naturalism, which would exclude appeals to not just to divine action, but to any causally efficacious disembodied minds or immaterial agents (such as ghosts or demons). But a broader naturalism of this kind lies outside the scope of our discussion.

Does this make our thesis too narrow to be of interest? We believe not. Practically all who protest against the naturalism of the sciences do so because they have a religious agenda (Forrest, 2009, p. 456). They wish to replace natural explanations of some phenomena with explanations that appeal to divine action. This is very clear when it comes to young-earth creationism, whose advocates follow a literal reading of the biblical account of the world’s origins (Whitcomb & Morris, 1961, p. xxii). Proponents of “intelligent design” (ID) are more subtle, claiming that their argument does not require a theistic conclusion (Behe, 1996, pp. 196–97). Nor does it rely on biblical authority. It is for these reasons, they argue, that it should be admitted to the science curriculum. But ID advocates insist that the “irreducible” or “specified” complexity of living things makes an entirely natural explanation of their development inconceivable (Dembski, 2002, pp. 325–28). A supernatural agent is required, and there can be no doubt that the supernatural agent they have in mind is the Christian God (Monton, 2008, p. 7; Dembski, 1999, p. 84). In this context — in which religious thinkers are trying to replace natural explanations with theistic ones — our argument is far from trivial. It does not prove the opponents of scientific naturalism to be wrong (see sect. 4.3). But it does show that their view entails a radical revision of the traditional aims of scientific inquiry.

2.3. The aim of our argument

A third comment has to do with the intended aim of our argument. We are not, in this context, defending the naturalism of the sciences. As will be evident, we are sympathetic to a naturalistic view of scientific inquiry and would like to defend it. But the present paper is, at best, preliminary to such a defense. All we aim to do here is to show how the sciences have operated, from the very inception of scientific inquiry, and to spell out the implications of this stance. As we have just suggested, the evidence we shall produce does not, in itself, rule out a different understanding of science. There would be nothing self-contradictory in a view that said, “Yes, scientists, as scientists, have always avoided invoking divine action, but they should now be permitted to do so.” All we want to make clear is that the naturalism of the sciences did not develop at a particular point in their history, taking the place of appeals to divine agency. On the contrary, the exclusion of divine agency dates from the very beginnings of scientific inquiry.

Please cite this article in press as: Dawes, G.W., & Smith, T., The naturalism of the sciences, Studies in History and Philosophy of Science (2017), https://doi.org/10.1016/j.shpsa.2017.11.012

G.W. Dawes, T. Smith / Studies in History and Philosophy of Science xxx (2017) 1–10
دریافت فوری
متن کامل مقاله

امکان دانلود نسخه تمام متن مقالات انگلیسی
امکان دانلود نسخه ترجمه شده مقالات
پذیرش سفارش ترجمه تخصصی
امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
امکان دانلود رایگان ۲ صفحه اول هر مقاله
امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
دانلود فوری مقاله پس از پرداخت آنلاین
پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات