

The True, the Good, and the Value of Science

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Abstract

This paper defends the claim that questions about the epistemic value of the sciences cannot be detached from wider ethical questions about ‘the good life’ for human beings. Science cannot be conceived as value solely or primarily because of its capacity to provide Truths about the world. The reason is that Truth cannot only appear as a valuable and meaningful value in relation to a wider conception of the Good. Identifying and articulating the conception of the Good which animates the modern sciences is therefore a neglected project for the philosophy of science.

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1. Introduction

What is the value of science? This question is an oddly neglected one within the philosophy of science. Often, indeed, the question is not asked at all, or it is regarded as one easily dealt with. Philosophy of science textbooks, for instance, usually begin with cheerful remarks upon the various cognitive and practical benefits afforded by scientific inquiries, but without accompanying critical reflection upon the values and projects which render those benefits salient and significant. In general, then, the value of science is taken for granted, such that philosophers of science are left with more technical questions about, say, the structure of scientific

theories.¹ The presumption of the value of science also fuels the ‘value-free ideal’ of science as an enterprise isolated from moral, social and existential concerns (see Kincaid, Dupré, and Wylie 2007).

In this paper, I take issue with the presumption of the value of science. My aim is not to deny nor deride its value, but, rather, to establish the significance of the foundational question, ‘What is the value of science?’ This is both a scholarly worry and a philosophical one, for the neglect of that question by mainstream philosophers of science has arguably discouraged critical reflection on why we ‘do’ science and, therefore, why it has, and perhaps should be afforded such a central and privileged place within our culture (on the critical conception of philosophy being appealed to here, see Kidd 2012). In section two I discuss Paul Feyerabend’s proposal for a ‘critique of scientific reason’, and then, in section three, use David E. Cooper’s distinction between ‘the True’ and ‘the Good’ as aims of inquiry to illustrate how the question of the value of science may be approached. Section four brings these two discussions together, before I conclude in section five.

2. ‘What’s so great about science?’

Paul Feyerabend was a notorious critic of the presumption of the value of science. In a neglected article, ‘On the Critique of Scientific Reason’, he asks two questions: ‘What is science’ and ‘What’s so great about science’, and Feyerabend complained that there ‘hardly exists anyone’ who asks the second question because ‘[t]he excellence of science is *assumed*, it is not *argued for*’ (Feyerabend 1978, p. 73). Although Feyerabend did not deny the value of science, he was disturbed by the widespread tendency to simply presume the priority of scientific projects without due consideration of the possible merits of alternatives. As he argued in a series of lectures in 1993, science is not intrinsically ‘tyrannical’, but it may become so without careful critical vigilance by scholars, elected leaders, and the public (see Feyerabend 2011).

The title of the paper in which these two questions are broached is ‘On the Critique of Scientific Reason’ (Feyerabend 1976). That title is, of course, a nod to Kant’s *Critique of Pure Reason* and Feyerabend intended his critique of scientific reason to be a ‘critique’ in Kant’s sense. In the *Critique*, Kant ‘rejects extravagant claims made on behalf of reason’ and

¹ One philosopher of science, for instance, assures us that, ‘If any problem in the philosophy of science justifiably can be claimed the most central or important, it is that of the nature and structure of scientific theories’ (Suppe 1977, p.3).

therefore also rejects systems, like Leibniz's, which indicate 'reason pressed beyond its proper limits' (Cooper 2003, p.296). Feyerabend, therefore, criticises 'extravagant claims' made on behalf of science—such as that it is methodologically unified—and so seeks to identify the 'proper limits' of scientific inquiry. A critique of scientific reason therefore aims to identify the nature and limits of scientific inquiry, possibly in a way with implications for our estimations of its value. And of course, such a critique must be comprehensive and 'cannot anything for granted ... examin[ing] the most obvious assumptions' (Feyerabend 1976b, p.112).

Central to a critique of scientific reason is an understanding of why sciences matter. Feyerabend insisted that the philosophy of science owed us an account of the value of science that did not include question-begging appeals to 'curiosity', 'understanding', and so on. These values may be legitimate, but they cannot be taken for granted. After all, there are many cultures and communities, both within Western cultures and without, who do not afford the sciences the same value and prestige that we do; therefore, we need an account of the value of science, even if only for the self-reflective purpose of understanding the place of science within our life. Feyerabend himself proposed that 'decisions concerning the value and the use of science are not scientific decisions; they are what one might call 'existential' decisions; they are decisions to live, think, feel, behave in a certain way'. The continuing value of science therefore depends upon one's answer to the perennial philosophical question of 'what kind of life one wants to live' (Feyerabend 1987, p.30; see further Kidd 2010). The sciences matter, therefore, because they resonate with, and fulfil, certain prevailing values—that is, certain powerful ideas about what matters to us, about what we value.

So far, this might all seem very uncontroversial. The force of Feyerabend's remarks, it might seem, is simply that we should recognise that science is valued because we value curiosity, or useful technologies, or greater knowledge of the natural world. Such an interpretation would, of course, be rather banal—surely there must be more to a 'critique of scientific reason' than the rather boring point that science is valued because it helps us to understand and manipulate the world?

This point ceases to be boring and banal when one appreciates the pervasive power of the myth of the 'value-neutrality' of science. Despite welcome recent studies of values in science, there is still a presumption that science is, if not wholly value-free, then, at the least, that it is 'free from', or neutral regarding, so-called 'non-epistemic values'. These include a host of moral, aesthetic, cultural, and religious values, including

the wider conceptions of a meaningful human life that they employ. Many philosophers of science are insistent on the point that the sciences simply describe the world—its structure and properties, say—and do not, and perhaps cannot make any further proposals about how to live, or why life matters. These are, it is supposed, questions for ethicists, theologians, or more ambitious ‘philosophers of life’; but, at the least, that they are not questions for the philosophy of science. The ideal of the value-neutrality of the sciences is the idea that science simply describes the world, without telling us how to live within it. Or, as Galileo once quipped, science tells us how the Heavens go, but not how—or indeed why—to go there.

3. The True and the Good

The value-free ideal maintains that science is directed towards truth, where ‘truth’ here refers to a cluster of epistemic values attached to the idea of disinterested knowledge of what the world is like. A physicist, say, is interested in the Truth about the structure of the atom, but has no necessary further interest in what value that knowledge might have, or what place it might hold in wider human life, or of its ‘Good’ for human beings.

This distinction between ‘Truth’ and ‘the Good’ has been recently articulated by David E. Cooper. In a recent paper, Cooper argues that the history of philosophy can be understood in terms of two competing ‘visions of philosophy’. These are, respectively, as ‘theory or speculation orientated towards Truth, and vital practice orientated towards the Good, towards Life’ (Cooper 2009, p.3). This distinction works rather well for science, too. Many philosophers of science insist that science is orientated towards Truth, and that the question of its Good can be side-lined or compartmentalised—reassigned, perhaps, to more speculative thinkers.

If science is oriented towards Truth, then it need not be assessed in terms of the Good. One can ‘do’ science by pursuing epistemic values, like knowledge and understanding, without straying over into questions about the Good to which those values might contribute. This point is familiar from the philosophy of science, where, for instance, many insist that scientific knowledge and practices simply provide the means for pursuing ends, rather than specifying ends in themselves. Science supplies the Truth, and it is for others—individual conscience, perhaps, or ethicists—to supply any conception of the Good within which it might take its place.

This response seems flawed, for the reason that it arguably supports the very opposite conclusion. The very fact that the sciences are pursued within Western modernity and are afforded a considerable degree of

prestige and authority means that they must hold some value for us. That is, the sciences are judged to be valuable, and this judgement must, in itself, invoke certain values—certain ideas about what matters, and why. Of course, the critic could reply that the sciences are directed towards broadly epistemic aims, such as ‘Truth’, rather than towards non-epistemic aims—moral, aesthetic, or whatever—which one may refer to as the ‘Good’. The sciences could therefore be oriented towards Truth rather than the Good in a way that could secure the independence of science from ethics. As Feyerabend once put it, in a series of three blunt questions, ‘What’s so great about knowledge? What’s so great about science? What’s so great about truth?’ (quoted in Krige 1980, pp.106-107). These things may be valuable, but it is important—especially for persons who value Truthful ideals—that we be able to explain why they do.

Cooper emphasises this point. After introducing the distinction between the True and the Good, he goes on to argue that it cannot be maintained. Or, even if the distinction between Truth and the Good as broad aims of science can be sustained, the value of the former is surely dependent upon one’s conception of the latter. That is, if the value of the sciences is judged to lie in their capacity to secure Truth, even if only in principle, then this must, in turn, imply that Truth itself is held to be valuable or important in some wider sense—and this wider sense is defined by one’s conception of the Good.

As Cooper puts it, even if the aim of the sciences is construed as their capacity to generate ‘propositional knowledge’ or to fulfil ‘some practical purpose’, then these must be ‘already invested with an orientation towards the Good’ (Cooper 2009, p.13). Simply put, the claim that the sciences simply fulfil our epistemic interests requires that one has already invested such epistemic values—like ‘truth’ or ‘knowledge’—with value, and that value cannot, in itself, be conferred by the epistemic values themselves. Rather, the value afforded to truth and knowledge is secured once those values are located within a wider, deeper conception of the Good, of ‘the good life’, one in which epistemic values—like scientific knowledge and understanding—are considered significant or salient. But in the absence of any such supportive context the sciences will not enjoy the intelligibility and significance which they do in fact enjoy within modernity.

The contingent nature of the salience of salience was put well by Edmund Husserl: ‘science is a human spiritual accomplishment which presupposes ... for each new student, the intuitive surrounding world of life, pre-given as existing for all’ (Husserl 1970, p.121). In the absence of that ‘life-world’, the metaphysical and epistemological commitments of

the sciences would seem as irrelevant or incredible in the same way that Hindu cosmology or Greek cosmogony seem to ‘we moderns’ today.

4. Science, the Good, and modernity

The value of science should be interpreted in terms of a conception of the Good. What is asked for is an account of what a Good life is, what values inform it, and an account of the place of scientific knowledge, practices, and institutions within it. And one does not need to look very far to find just such a conception of the Good which is sympathetic to science, because Western modernity itself provides a perfect case. That may be true enough, and certainly my aim is not to dispute the claim that, by and large, the sciences are deeply valued within modern Western cultures. However, one cannot take for granted the idea that the sciences will continue to be valued by us, or that other conceptions of the Good are possible, ones in which the sciences enjoy little if any of the significance that we afford them.

As Charles Taylor recently warned us in his magisterial study, *A Secular Age*, Western modernity is too often blind to the possibility that is ‘powered by its own positive visions of the good, that is, by one constellation of such visions among available others’. The ‘old myths and legends’, he writes, have not been ‘exploded’—not in every case, at least—and so the modern sciences are not ‘the only viable set left’ (Taylor 2007, p.571). Feyerabend similarly warned that critical inquiries into the value of the sciences are disturbing because they may provoke ‘the realisation that one’s own most cherished point of view may turn out to be just one of the many ways of arranging life, important for those brought up in the corresponding tradition, utterly uninteresting and perhaps even a hindrance to others’ (Feyerabend 1978, p.80). Into the future, one cannot be sure that social, historical and other changes may not prompt changes in our conception of the Good; and, if this happens, then the value and prestige afforded the sciences may well change, perhaps radically.²

It seems presumptive to insist that scientific knowledge and practices must figure into any conception of any tenable culture. Even without pointing to the diverse of ‘non-Western’ cultures, one can find cases of ‘dissenting’ communities within Western cultures. Philip Kitcher (2008),

² An interesting question here regards the influence of the sciences upon our conceptions of the good life, on what might be called the ‘direction of dependence’. The sciences may well affect our ideas about the sorts of ‘good life’ that are available and attractive to human beings, in just the same way as those ethical ideas affect our ideas about the sorts of science that we find morally permissible.

for instance, points out that although many fundamentalist Christians may concede the practical superiority of the sciences, they may still maintain that epistemic authority does not belong to the sciences alone. Instead, they acquiesce to the sciences on certain matters, but defer to religion on others. (Kitcher calls these ‘hybrid epistemologies’). They may wish to preserve their commitment to other epistemic authorities—such as revelation or scriptural authority—perhaps on the grounds that it is these, and not the sciences, which resonate best with their moral and religious values and concerns. Kitcher notes many ‘ordinary Americans should be unpersuaded’ about celebrations of the sciences, since ‘they are not part of this splendid venture’ and, indeed, because it threatens to ‘undermine institutions that currently play a critical role in making their lives bearable’ (Kitcher 2008, p.14). Such communities and cultures may well concede the practical and cognitive superiority of the sciences, but judge that efficient technologies and the understanding of natural phenomena simply does not figure much into their conception of the Good. This is, again, a point that Feyerabend pressed when he suggested that appeals to the ‘*products* of science are not ultimately decisive’ in decisions concerning the value of science. The reason, he suggested, is that such decisions are ‘‘existential’ decisions; they are decisions to live ... in a certain way’, and so judgements about whether scientific knowledge and practices ‘are good or bad, helpful or destructive’ depends upon ‘*what kind of life one wants to live*’ (Feyerabend 1987, p.30, original emphasis).

The value of the sciences is contingent upon the conception of the Good one employs. These may be personal, or shared with a given community or culture. Within modern Western cultures, the predominant conceptions of the Good are ones which resonate with science and its products; however, there are cultures and communities, historical and contemporary, both ‘Western’ and not, whose guiding conceptions of the Good confer little if any value on the sciences. Some cultures value the sciences as practical resources, but hold back from supposing that they describe the world ‘as it is’; others see the sort of sustained cognitive interest in the empirical world instantiated in the sciences as a source of moral and spiritual corruption; and so on. Only an absurdly inflated sense of the priority of our own values and concerns could persuade us that other cultures, culturally and temporally distant from ours, do or should share our conceptions of the Good—in which case, there is no reason to suppose that in other cultures, with different conceptions of the Good, the sciences will enjoy anything like the prestige and value we afford them.

5. Conclusions

This paper addressed the question of the value of science. After noting its neglect by philosophers of science, and the role of the ‘value-free ideal’ in this neglect, I argued that the question can be understood in terms of the True and the Good.

Science is commonly valued for its capacity to secure and provide Truths about the world, in a way, one supposes, that leaves the question of its place within the Good safely aside. However, using Feyerabend and Cooper, I argued that any appeal to the value of Truth must already presume the value of such Truths—and thence of science—within an implicit conception of the Good. The ‘value-free ideal’, which stresses the independence of science from moral and social values and concerns, should therefore be rejected.

The primary ‘vision’ against which one must assess the value of science is the Good, even if the precise nature and content of this conception remains, at present, fairly unclear. That fact points to the intimate connections between the philosophy of science and ethics, the latter understood in the ‘deep’ sense as sustained reflection on ‘the good life’.³

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