

INTRODUCTION

The theme of this book is an old one going back to the beginning of philosophy in Socrates' and Plato's encounters with the anti-rationalists of their day, the sophists. Though it cannot emulate the depth and subtlety with which these philosophers reclaimed rationality and knowledge from their detractors, in a nutshell the book investigates the following. Do knowledge and science arise from the application of canons of rationality and scientific method? Or is all our scientific knowledge caused by socio-political factors, or by our interests in the socio-political – the view of sociologists of “knowledge”? (As will be argued, the scare quotes are quite deliberately intended.) Or does it result from the interplay of relations of power – the view of Michel Foucault? Or does our knowledge arise from “the will to power” – the view of Nietzsche? It is argued here that, despite their large contemporary following, the latter fail badly to make their case against advocates of rationality and methodology in science and knowledge.

Our contemporary sophists come in a number of guises, such as relativists, sceptics, nihilists and sociologists of “knowledge” – their most recent incarnation being as postmodernists. 'Postmodernism' is a broad term said to cover a number of intellectual stances within a number of disciplines from architecture to philosophy; the term covers not only intellectual fashions but also alleged social currents and changes. As its name suggests, postmodernism is “post-”, setting itself against “the modern”, whatever this may be. But such a definition, which says what postmodernism is not, is unhelpful, particularly in the case of postmodernism in philosophy. What counts as modern in philosophy is not clear; but two common philosophical targets of postmodernists are advocates of rationality and method such as Descartes and Kant. Postmodernists also hope to turn out the lights first turned on by eighteenth century enlightenment philosophers. They were called 'enlightened' in large part because of the way in which they attempted to free their generation from the dogmas of religion; but the enlightened few did not make for an enlightened age.

The Latin term 'modus' (from which our term 'modern' derives) means 'measure', of which the ablative is 'modo', 'with measure', especially in respect of time; this in turn gave rise to an adverbial form meaning 'just now'. In the later Roman Empire the term 'modernus' was derived meaning 'our current time', by which was intended a contrast between the then present

Christian empire and the previous pagan empire. Granted this etymology, the term 'modern' indicates that there has been a change from a previous mode or manner of being or doing to a later mode or manner of being or doing. Thus the term 'postmodern' tautologically points to a further recent change that allegedly now characterises the very latest in fashionable modes of thought, or social trends – from Paris to New York. For our purposes we can take the postmodernists to be at least pointing to a new conception of what is generally thought to drive change in our knowledge and science. We cannot say 'growth' of science, because this might be misconstrued teleologically. The "driver" is no longer anything rational but something quite different – something social, political, cultural or psycho-social.

The contrast between the rational and political or social, one important theme of this book, is well described by Cahoon, a commentator on current postmodernist writings. He proposes a number of characterisations of postmodernism in terms of what postmodernists typically accept or reject of the philosophical tradition (Cahoon (1996), pp. 14-5). Of importance for our purposes is the contrast between "the transcendence of norms as opposed to their immanence":

The denial of the *transcendence* of norms is crucial to postmodernism. Norms such as truth, goodness, beauty, rationality, are no longer regarded as independent of the processes they serve to govern or judge, but are rather products of and immanent in those processes. For example, where most philosophers might use the idea of justice to judge a social order, postmodernism regards that idea as itself the product of the social relations it serves to judge; that is, the idea was created at a certain time and place, to serve certain interests, and is dependent on a certain intellectual and social context, etc. ... This leads postmodernists to respond to the normative claims of others by displaying the processes of thought, writing, negotiation, and power that produced those very normative claims. (*ibid.*, p. 15).

An important part of the philosophical tradition, well exemplified from Plato to Kant, is the view that there is an independent, and even an *a priori* justifiable, realm of the normative, whether it concern norms of reason, logic, epistemology and methodology, or norms of morality, politics and the law. Here the focus will be on the first set of norms, collectively called for convenience 'norms of rationality'. Some have been critical of the status claimed for these norms from Plato to Kant and beyond; these critics have attempted to give a different account of that status while still assuming that some of these norms at least retain their authority. However postmodernists, and others for different reasons, have claimed not only that the status assigned to norms of reason is wrong, but also that the claim that the norms are authoritative in any way is to be debunked. Cahoon says as much about postmodernist claims concerning the norms of justice. And the same considerations can be extended to the norms of rationality. Nowhere has this been more evident than in the recent "science wars" in which some critics aim to dethrone the status of scientific knowledge by undermining the claims

of scientific rationality on which it depends. The full import of the denial of a role for norms of rationality is a central theme of this book.

All people by nature desire to know, said Aristotle in the very first sentence of his *Metaphysics*. But was he over-optimistic? Certainly we have evolved as primates who believe, this being one main characteristic that advocates of naturalism use to distinguish us, despite our otherwise animal nature, from all other primates and the rest of the animal kingdom. But the path from mere belief to knowledge is a difficult one, as much epistemology shows. Do we all desire to *know*? Is this desire due to our very natures? Just how widespread is not only this desire, but also the capacity to exercise our abilities to know? Recent empirical research in cognitive psychology indicates that the capacity is variable and often fitful, leading some to posit the idea of the "irrational" human.¹

Clearly many lack the desire to know; these range from the merely dull to the dangerously dogmatic. Others say we can make little headway, or none at all, along the path to knowledge; these are the sceptics. Yet others say that it is an illusion that there is any such path to be found and that we should simply be content to live with the variety of beliefs that surround us; these are the relativists and their present-day fellow travellers amongst who are many postmodernists. Yet others, including sociologists of "knowledge" and some postmodernists, say that power relations or political interests, but not anything rational, determine, or cause, our beliefs. Finally, some think that there is a path to knowledge about some matters, and strive to find it. To this end they equip themselves with theories of rationality and method to enable them to detect not only appropriate paths through the thicket of belief, but also to detect when they have reached their goal, knowledge. Aristotle's *Organon* is one of our first treatises on such path-breaking, and knowledge detection. Perhaps it is just to these optimistic rationalists with their methods and principles of reasoning that Aristotle should refer, and not humankind as a whole with its burgeoning number of postmodernists who are often relativistic, sceptical or nihilistic about claims to scientific knowledge.

There have always been naysayers to both the possible fulfilment of the Aristotelian desire for knowledge and the idea that there may be methods for certifying some beliefs as knowledge. Plato showed us how to deal with the naysayers to method and knowledge of his own time in a number of his dialogues. Thus in the *Theaetetus* he wrestles with the relativism of the sophists, especially that of Protagoras, in order to draw out unacceptable conclusions for the doctrine and to show that it is self-refuting.² And in the *Gorgias* he wrestles with advocates of rhetoric and power who would give us merely conviction and not knowledge. While criticising his opponents, Plato looked to what intellectual equipment we would need if we were to attain any knowledge, thereby developing one of our earliest theories of knowledge³;

aspects of Plato's position are discussed in section 2.1. Of course, there will be those who maintain that Plato was singularly unsuccessful in refuting the views of his opponents and that either the task has to be begun anew or victory is to go to his opponents. The view taken here is that Plato makes some important points that his opponents must take seriously or be in intellectual peril.

As the history of human intellectual frailty shows us, Plato's encounter with the sophists of his day has to be replayed anew for every generation unless dogmatism, scepticism, relativism, or whatever new intellectual fashions, such as postmodernism or the doctrines that inform much of cultural studies, get their grip upon us. As a result much of this book might appear negative in character; but even discovering that not-p is the case can be of value in any critique of intellectual fashions. Parts II, III and IV each deal with the doctrines of three contemporary heirs to the views of those very sophists Plato encountered. The three are chosen for scrutiny because of their salience in our current intellectual scene and their wide influence. Part II deals with sociologists of knowledge, from Marx and Mannheim to advocates of the "Strong Programme" for the sociology of scientific knowledge, and the claims they make against any autonomous theory concerning the rationality of science. Part III concerns Foucault's archaeology, genealogy and his power/knowledge doctrine. Part IV deals with Nietzsche's influential views, said to be the for-runner of much of current postmodernism. What will be discussed is his view that our entire conceptual scheme is false, but it is projected on to the world in order that we might survive. The projectionist or constructivist account of reality is currently influential amongst postmodernists and others, and it often has a source in Nietzsche.

In contrast, Part I is more positive in setting out some of the familiar grounds for thinking that there are methods for obtaining knowledge by reviewing some theories of scientific rationality. Though there is some defence of this position, a more detailed defence is not possible within the scope of this book. As familiar as these ideas may be, a secure grasp of them is needed as one sails, like Ulysses, the oceans of belief trying to resist the siren calls of sociologists, cultural studies enthusiasts, Foucault and Nietzsche, to mention just a few of those who would woo us into the whirlpools of irrationality. As we sail by we can glimpse the havoc these sirens have wrought on many a captured university discipline – English, Education, Sociology, History of Science, to mention a few.

Perhaps the most self-conscious way we have of breaking paths to knowledge is by means of science. True, the optimism of Francis Bacon that science would cure all our ills did not take into account that science might produce some ills of its own, such as the nightmare of nuclear warfare, pollution or global warming. Whether it is science that is to blame for this or,

as is more likely in many cases, the use of science within processes of production dominated by profit maximisation that are not subject to public and democratic control, is not my theme. Rather my focus is upon the methods of science and the idea of a *pure inquiry* into what the world is like. Whatever other connotations the word 'science' might have, the focus here is on science in which there is a product, knowledge (or certified belief), and a process for getting some, i.e., methods of inquiry. This is reflected in the etymology of the Latin noun 'scientia' that derives from the verb 'scire', 'to know'. Scientific inquiry has been spectacularly successful in producing pure knowledge of the world. But how? By using principles of rationality and method, say a host of philosophers from Plato and Aristotle down to philosophers of science as diverse in their views as to how that success has come about, for example, Popper, Lakatos, Hempel, the Bayesians, and many others. But there are some naysayers, even amongst contemporary philosophers of science, for example, Kuhn and Feyerabend.

But are they really the naysayers they are often thought to be? Part I of this book takes up this theme. Chapter 1 begins by setting out what are some of the core ideas behind what might be called our "critical tradition", part of which includes the methods of science and their claim to rationality. A number of detractors from this tradition are briefly reviewed, especially sociologically inclined writers on science. Kuhn and Feyerabend have also been taken to have rejected the critical tradition. However their position is somewhat complex. They have not bucked the tradition totally; rather it will be argued that they are critics of particular versions of the tradition, while maintaining an important place in it. The case for Feyerabend is much less clear than the case to be made for the later Kuhn who revised many aspects of his earlier, more widely known, views.

Chapter 2 raises the question 'why bother with knowledge rather than belief, or true belief?' Plato, who first drew the knowledge/belief distinction, provides us with an answer. And so do others who insist that the two questions '*Quid facti?*' (viz., questions about factual matters concerning our beliefs), and '*Quid juris?*' (viz., questions about what *right* we have to our beliefs, or justification for them) have importantly different answers. Once the significance of the distinction is recognised then it is important to develop a theory of the normative nature of knowledge. Two contrasting theories, amongst the many that are available, are set out to emphasise the normative and critical character of knowledge as opposed to mere belief. Those who would downplay the whole idea of knowledge overlook its normative and critical aspects. As will be seen, this is a common feature of the writers discussed in Parts II, III and IV. They ignore the significant difference between knowledge and belief, and simply stay with the latter, because they are either indifferent or oblivious to the normative and critical aspect of