

THE CRITIQUE OF POSITIVISM*

Russell Keat[†]

1. Introduction: a paradox in the critique of positivism

Critiques of positivism abound. It has become near obligatory for self-respecting social scientists to distance themselves from it. This much is obvious to anyone reading the methodological comments of social theorists in the past decade or more. But it is not so obvious precisely what it is that they oppose. I will argue that there is a serious and misleading conflation of several different forms of positivism, that are both logically and (at least partly) historically distinct, in those critiques of positivism associated with the tradition of critical theory stemming from the Frankfurt School.

A concept whose nature will prove especially problematic in this question of ‘how many positivisms?’ is that of the value-free character of social science supposedly espoused by positivists. Contemporary critics of positivist social science typically include this as a central element in their accounts of such a science. Thus Brian Fay, in *Social Theory and Political Practice*, says there are four essential elements in the positivist conception of social science:

“First, drawing on the distinction between discovery and validation, its deductive-nomological account of explanation and concomitant modified Humean interpretation of the notion of ‘cause’; second, its belief in a neutral observation language as the proper foundation of knowledge; third, its value-free ideal of scientific knowledge; and fourth, its belief in the methodological unity of the sciences.”¹

Likewise, the doctrine of value-freedom (and the associated separation of factual judgements from value-judgements) is ascribed to positivists by Max Horkheimer in his critique of the logical empiricism of the Vienna Circle, ‘The Latest Attack on Metaphysics’²; by Herbert Marcuse, in his

* [2013] This paper was presented at the annual conference of the British Sociological Association, University of Lancaster, in April 1980. A later version, with the same title, was published as Chapter 1 of *The Politics of Social Theory: Habermas, Freud and the Critique of Positivism*, Basil Blackwell/University of Chicago Press 1981, pp. 12-37; some other chapters from this book are available at www.russellkeat.net

[†] [2013] School of Social and Political Science, University of Edinburgh: russell.keat@ed.ac.uk. Previously, Department of Philosophy, Lancaster University.

examination of Comtean positivism in *Reason and Revolution*;³ and by Jürgen Habermas, in one of his contributions to *The Positivist Dispute in German Sociology*.⁴

But to think of value-freedom is to think of Max Weber; and to think of Weber should give us some cause to regard this supposed connection between positivist social science and value-freedom a good deal more sceptically. Weber's most important contribution to this issue, 'The Meaning of "Ethical Neutrality" in Sociology and Economics',⁵ was initially written in the form of a 'position paper' for a meeting of the committee of the German 'Association for Social Policy' (*Verein für Sozialpolitik*) in January 1914. His argument involved a complete rejection (according to Ralf Dahrendorf, in 'Values and Social Science') of the dominant attitude amongst members of the Association, especially of "its then almost undisputed head, Gustav Schmoller". Dahrendorf tells us that:

"It was Schmoller who had prescribed for the 'science of economics' not merely the tasks of 'explaining individual phenomena by their causes, of helping us understand the course of economic development, and if possible of predicting the future', but also that of 'recommending' certain 'economic measures' as 'ideals' ."

In his attack upon this view, I think we should see Weber as primarily concerned to dispel (what he regarded as) the illusory authority given to political and ethical ideals propounded in the name of 'science'. He believed that it was not possible to justify such normative claims by scientific evidence and argument alone, and thus that the very idea of a 'scientific' politics or ethics was epistemologically incoherent. Weber's main animus was against the spurious authority of scientific politics, of scientifically establishable solutions to social problems.

But - and here we move towards the paradox in critical theorists' ascription of a belief in value-freedom to positivists - the advocacy of just this idea of a scientific politics was undoubtedly one of the central tenets of the early nineteenth century French positivists, such as Saint-Simon and Comte. Thus Saint-Simon, speaking of how political decisions will be made in a society organized on the basis of the 'positive' sciences, says:

"These questions ... are eminently positive and answerable; decisions can only be the result of scientific demonstrations, absolutely independent of all human will, which may be discussed by all those educated enough to understand them And just as every question of social interest will then be decided as well as it can be with acquired knowledge, so will all social functions inevitably be entrusted to the men most capable of performing them in conformity with the association's general aim. Thus, in this situation the three principal disadvantages of the present political system -arbitrariness, incapacity and intrigue - will be seen to disappear

all at once.”⁷

Here, and throughout Saint-Simon's and Comte's writings, we are presented with the ideal of a society organized upon scientific principles, and in which all social and political problems are open to a rational solution through the application of (social and natural) scientific knowledge. It seems quite clear that, for Weber, this picture is both unattractive and epistemologically indefensible. The philosophical standpoint from which his opposition arises is essentially Kantian, insistent upon the separation of scientific knowledge from the realm of values, freedom, and the will; and this standpoint runs quite contrary to the early positivists' espousal of a scientized society. Yet, of course, we also find a marked antipathy to this 'positivist' ideal in the critical theorists: this much, at least, they have in common with Weber. Indeed, as is often noted, there are significant conceptual parallels between Weber's analysis of the process of rationalization in modern societies, and the Frankfurt School's critique of instrumental rationality and technological domination.

Thus thinking about Weber presents us with a paradox: the doctrine of value-freedom, typically regarded as a hallmark of positivist social science, seems to have been employed by Weber (quite legitimately, I believe) to reject another doctrine also apparently central to (some) positivists, the scientization of politics - and this latter doctrine is *also* attacked by critical theorists in their critique of positivism. It is to the resolution of this paradox that much of the rest of this paper will be devoted. But before proceeding to this, I shall suggest a further indication - though rather less direct - of the same paradoxical situation. This concerns Karl Popper.

In *The Positivist Dispute in German Sociology*, the figures of Popper, and his ally Hans Albert, are taken by the proponents of critical theory (Adorno and Habermas) to represent the positivist position they wish to attack. In the course of these exchanges, Habermas makes it clear that he regards Popper's espousal of value-freedom, of "the dualism of facts [*Tatsachen*] and decisions [*Entscheidungen*]"⁸ as an important aspect of his positivism; and though Popper vehemently resists the label 'positivism' (for good reasons, I believe, mainly related to the issues surrounding what I will later term 'epistemological positivism'), both he and Albert make no concessions on this point: they endorse the doctrine, and reject the dialecticians' attack upon it.⁹ So, although value-freedom indicates positivism to the critical theorists, it does not to Popper and Albert.

My attempt to sort out this apparently confusing situation will consist in two stages, one conceptual and the other historical. First, I shall introduce some distinctions between different doctrines that are often termed 'positivist', and outline the logical relations between them (sections 2 and 3). This, I hope, will show what it is that distinguishes, and indeed renders incompatible, the 'positivist' ideals of value-freedom and the scientization of politics. Second, I shall use these distinctions to help identify

some of the important intellectual currents and movements in the history of positivism, such as early French positivism, Utilitarianism, neo-Kantianism, and the logical positivism of the Vienna Circle (section 4). It will follow from what I say that, strictly speaking, there is no such thing as ‘the history of positivism’.

2. ‘Positivism’: some conceptual distinctions

There are four main doctrines that I wish to identify and distinguish here, before proceeding to examine their logical relationships: the ‘positivist conception of science’; ‘epistemological positivism’; ‘the scientization of politics’ and ‘value-freedom’. I shall suggest that many critics of positivist social science have either failed to note these distinctions, or misunderstood the logical relationships between the items here distinguished.

(1) According to the *positivist conception of science*, science aims at the explanation and prediction of observable phenomena by presenting these as derivable from general laws that hold in all regions of space and time. The truth or falsity of the statements intended to express such laws is determined by their relationship to statements describing empirical, observable ‘data’. Statements of scientific laws may contain ‘theoretical’ terms, i.e. ones that do not refer directly to what is observable; but the meanings of these items are to be given (if only incompletely) via statements containing solely observational terms. Thus theoretical terms are not to be understood as referring to non-observable entities.¹⁰

Proponents of this conception of science have frequently seen it as their task to purge the sciences of ‘metaphysical’ elements, which have themselves typically been characterized as ‘unobservable’. Historically, this is by no means a recent view of science, but rather, a recurrent one. Thus Popper, for example, has correctly argued in ‘Berkeley as a Precursor of Mach and Einstein’, that we can find this conception of science in Berkeley’s work.¹¹ It is clearly present in Comte, associated with his ‘law’ of the three stages of human thought. And in Ernst Mach, we find this view used as the basis for a critical reconstruction of Newtonian science, eliminating from it such ‘metaphysical’ concepts as absolute space and time, force (understood as anything ‘more’ than a theoretical concept definable in terms of mass and momentum), and any idea of causality as consisting in something other than regular relationships: for instance, causality as ‘necessary connection’.

(2) *Epistemological positivism* is the doctrine that science, understood in this way, is the only legitimate form of knowledge, together with logic and mathematics (though I will ignore these in what follows). It thus involves, not merely a distinction between science and non-science, but the

relegation of the latter to the domain of cognitive meaninglessness, or nonsense. On this view, science must be free from metaphysics, not just to make it 'scientific', but to preserve its character as knowledge.

Again, as for instance Kolakowski shows in *Positivist Philosophy*¹², this is a far from recent position, historically, though we are perhaps now most familiar with it through the 'logical positivism' of the Vienna Circle. It is clearly epistemological positivism that forms the main target of Habermas's critique of 'scientism' in *Knowledge and Human Interests*, where he defines 'scientism' as the belief "that the meaning of knowledge is defined by what the sciences do and can thus be adequately explicated through the methodological analysis of scientific procedure".¹³ To Habermas epistemological positivism is incoherent, since it denies its own status as a claim to knowledge, viz, *philosophical* knowledge, which for him involves "reflection". Thus Habermas's pointed comment: "that we disavow reflection *is* positivism".¹⁴ And Popper, as an important part of his own rejection of logical positivism, argued that the Vienna Circle had been mistaken in identifying science with meaningfulness: instead, what was required was a demarcation between science and *non*-science, not between science and nonsense.¹⁵

What is the consequence of epistemological positivism for the status of value-judgements in ethics and politics? They must clearly be relegated to the category of cognitive meaninglessness, *unless* they can be satisfactorily interpreted as based solely upon scientific knowledge. The logical positivists appear to have disagreed as to whether this was possible. Thus, whilst the predominant view was probably represented by Ayer, who regarded value-judgements as cognitively meaningless, and began to develop the so-called 'emotivist' theory of ethics,¹⁶ Schlick believed there was room for a scientific ethics, which could at least establish, first, that "in fact, whatever is morally approved does promise to increase the joys of human society; and second, that this effect expected by society is the only reason it is approved";¹⁷ but he denied that it was possible for the philosopher to "tell us what good must or should mean."¹⁸ By contrast, Neurath seemed to think it possible to combine epistemological positivism with commitment to a form of hedonistic utilitarianism, that itself provided support for a Marxist socialism.¹⁹ I shall return to this link between positivism and 'scientific socialism' later on; whilst the reference to utilitarianism will be important in understanding the third of my four concepts, the scientization of politics, to which I now turn.

(3) It is difficult to be precise in defining this idea of a *scientific politics*, partly because many of its proponents, such as Saint-Simon, have hardly had the merit of philosophical clarity or sophistication. But it is, I think, well captured in the following passage from Fay's *Social Theory and Political Practice*:

“... it is thought that if it were to be the case that political decisions would be made on the basis of technical application of social scientific knowledge, then the character of political argument would drastically alter. The point here is that, at least in the ideal, the disagreements that arise in engineering or medicine are not expressed in terms of personal values or wishes, nor are they debated on the basis of the power or position which the disputants have in the social order to which they belong, nor settled in terms of subtlety of exposition or rhetorical power; rather, the issues are tangible, measurable, and testable, and debates about them are conducted in such a way that it is these objective features accessible to all which decide the matter at hand If politics were to become an applied science, it is argued, its conjectural, arbitrary, emotional and personal elements would drop out, and its arguments and decisions would assume the same neutral characteristics as those of engineering.... In political arguments there would be, as there are in scientific arguments, reliable public standards of ascertainable truth, and therefore the possibility of a universally recognizable decisive solution to a particular problem. It is in this way that a social science would be able to eliminate the ‘anarchy of opinion’ which characterizes modern political thinking.”²⁰

Thus the ideal here is the use of science to provide rational solutions to all problems concerning the organization of society. But there is an obvious difficulty for this ideal. For it would seem that scientific knowledge - conceived positivistically, as in (1) above - can only provide us with the ability to make conditional predictions about the consequences of possible courses of action, and cannot prescribe for us the goals or ends of such actions. So a scientific politics must be radically incomplete, until some decision about these goals is provided.

At this point, the attractions of utilitarianism to proponents of the scientization of politics becomes clear. For a central supposed virtue of this doctrine is that, once its basic principle has been adopted - the ‘greatest happiness of the greatest number’ - all further normative questions become, in principle, scientifically resolvable. Thus we find that many proponents of a scientific politics have been, to varying degrees of philosophical self-awareness, utilitarians. Strictly speaking, of course, utilitarianism does not constitute a ‘purely scientific doctrine of norms’, since, as its more sophisticated advocates such as J. S. Mill fully recognized, the principle of utility is not itself scientifically establishable; nor, indeed, according to Mill, can it be given any kind of proof, though he did believe that strong reasons could be provided in support of it.²¹ But such problems do not seem to have concerned its less sophisticated supporters, such as Saint-Simon, who contented himself with frequent comments of the following kind:

“It has been recognized that the rulers are only the administrators of society, that they must direct it in conformity with the interests and will of the ruled, and that, in short, the happiness

of nations is the sole and exclusive purpose of social organisation.”²²

And,

“In the present situation it is acknowledged that the permanent and sole duty of governments is to work for the happiness of society. But how is society’s happiness to be achieved”²³

The answer, for Saint-Simon, lay in the development and application of the ‘positive’ sciences, both natural and social. In this way, politics (and ethics) could become positive sciences, also.²⁴

(4) Just as it is often unclear what positivism consists in, for its critics, so is it unclear what they mean by the doctrine of *value-freedom*, which they typically ascribe to positivists. However, it seems reasonable to refer here to Weber’s position, since critics of value-freedom frequently point to his work as its classical expression.

As I have argued elsewhere, there are a number of separable elements in Weber’s defence of a value-free social science.²⁵ First, there is the claim that there is a logical distinction between factual and value-judgements, and that the latter cannot be derived from the former. It follows that science, which is concerned exclusively with facts, cannot establish the truth of value-judgements. Second, Weber argued that whilst values are necessary to orient any social scientific enquiry by giving significance to the task of understanding possible objects of investigation (and, indeed, in conceptualizing those objects via the construction of ‘ideal types’), this is their sole function in science. In particular, the criteria for the truth or falsity of scientific descriptions and explanations are logically independent of the acceptance or rejection of substantive normative commitments.

I take these two claims to be the central ones in Weber’s position, but for the sake of completeness, and to at least make it easier for people to assess whether my judgement of ‘centrality’ is legitimate, two further claims should be added. First, he argued against the practice of social scientists *making* value-judgements, in their teaching or writing, and for a separation in the practice of social scientists between their scientific, and political or ethical, activities. Above all, as I suggested earlier, he wished to avoid any spuriously scientific authority being given to social scientists’ normative pronouncements, and believed this would best be achieved by a separation of ‘professional’ and ‘political’ roles. It is important to note, though, that Weber presented this view quite explicitly as a value-judgement, that was not itself scientifically establishable. Second, Weber believed that whilst ethical and political values were of the greatest importance, there was no fully rational way of defending one’s commitment to them. He emphasized the diversity and incompatibility of the normative standpoints that people sincerely adopted, and claimed that no knowledge was possible

about their final merits.²⁶

As I shall note later, Weber's position was clearly strongly influenced by a Kantian dualism, as interpreted through the Heidelberg school of neo-Kantians. But before moving to this stage of my overall argument, I turn to examine the logical relationships between the four doctrines outlined so far.

3. The logical relationships between the four 'positivist' doctrines

I shall proceed here by first making a series of claims about some of these logical relationships, and then providing some examples of the failure to recognize these by certain critics of positivism.

(i) *The positivist conception of science does not presuppose epistemological positivism.* That is, it would be perfectly consistent to accept the former, whilst rejecting the latter. For the positivist conception of science makes claims solely about the character of scientific knowledge, and does not make the additional claim that this is the only legitimate form of knowledge. Thus, for instance, this conception of science does not require that we reject the claims of value-judgements to the status of knowledge; nor does it involve the similar rejection of metaphysics, or of philosophical knowledge itself. It is, of course, true that many proponents of the positivist view of science have also been epistemological positivists: for example, the logical positivists. But others have not: indeed, as in the case of Berkeley, and of Pierre Duhem, this conception of science has sometimes been adopted to *protect* the claims of religion or metaphysics from possible conflicts with, and rejection by reference to, scientific knowledge.²⁷ By contrast, epistemological positivism does involve a commitment to the positivist conception of science, and thus also to the belief that the social 'sciences', if they are to deserve this label, must conform to this model of science: the thesis of the *methodological unity* of social and natural science.

(ii) *Neither the positivist conception of science, nor epistemological positivism, entails acceptance of the ideal of a scientific politics.* Let us consider epistemological positivism first. As I said earlier, this position involves the rejection of the rationality of value-judgements, unless they can be interpreted as scientific statements. Though some logical positivists apparently believed this was possible, it is, I think, more plausible from such a standpoint to deny this, and so to regard value-judgements as cognitively meaningless. Now, unless it could be argued that political and moral decisions do not require such judgements, it would follow that these decisions cannot be made scientifically; thus the realm of politics and ethics cannot be brought within the bounds of legitimate knowledge. Far from this leading epistemological positivists to endorse the ideal of a scientific politics, then, it would be

more reasonable for them to regard political and moral disputes as rationally unresolvable. Indeed, epistemological positivism might well provide the grounds for challenging any claims made for the scientificity of their views by proponents of substantive normative positions, rather in the way that Weber did, in his conception of value-free science.

(iii) As for the relation between the *positivist conception of science*, and the *scientization of politics*, it should be clear why *the former does not entail the latter*. For, as I have already argued, it would be consistent to maintain both this view of science, and the possibility of a non-scientific knowledge of values. Thus politics could be rationally based, without thereby having to be 'scientific'. Further, the positivist conception of science is compatible with the doctrine of value-freedom which itself, as we have seen, is directed against the possibility of a scientific politics.

(iii) *The doctrine of value-freedom does not entail epistemological positivism*. That is, it would be consistent to maintain the former doctrine, whilst rejecting the view that only science can claim the status of genuine knowledge. Suppose that someone claimed that value-judgements could be rationally supported, but not on the basis of scientific knowledge: for instance, on the basis of a theological position, or in the form of 'ethical intuitionism', or with a Kantian view of the requirements of the categorical imperative. In such cases, it could well be maintained that whilst science should be 'free from values' in the way I outlined earlier, this does not mean accepting that only science can provide us with knowledge.

But it may be objected that I am wrong here: for, if the doctrine of value-freedom is understood as 'Weber's doctrine', as I have done, then must we not accept, as part of this doctrine, his denial of the possibility of a rational basis for value-judgements? And would not this rule out the possible combination of value-freedom and non-scientific knowledge of values, and thereby go some considerable way to tying value-freedom to epistemological positivism?

I have, in effect, been careful to provide myself with an initial defence against this objection, in the way that I presented the doctrine of value-freedom earlier. For I described what is, in this context, the problematic element in Weber's position as '*non-central*'. But clearly I need now to offer some justification for this designation. First, I would argue that nothing else that Weber claimed about value-freedom would have to be altered, if we instead believed that value-judgements could be rationally, but not scientifically, supported. Second, it seems to me clear that Weber's main interest was in maintaining that political and ethical positions could not be defended on scientific grounds, and that scientific truth could be established independently of normative commitments. Third, at least some versions of the Kantian dualism of science and morality that underlies Weber's position, are compatible with a belief in the rationality of moral judgements. That Weber does not himself accept

this belief seems relatively incidental to his main concern in specifying the relationship between social science and normative judgements. Finally, whatever the importance of his view of the epistemological status of value-judgements for Weber's overall position, it is perfectly legitimate for *us* to construct a definition of value-freedom which partly differs from his, provided that this serves to illuminate certain issues about the relationship between epistemology and politics, as I believe that it does.

I turn now to illustrate some ways in which these logical relationships between the various doctrines have been misunderstood or ignored, and the significance of this for the critique of positivism. One of the main features of this critique has been that positivism is unable to provide us with the basis for a rational criticism of existing social reality, one that reveals its inhuman, irrational and repressive character. Positivism, it is argued, confines itself to describing and explaining what exists, and to the extent that it fails to criticize, and to aid in the struggle against, the existing state of affairs, it at least implicitly supports, or contributes to the maintenance of, that state of affairs.

There are a number of difficulties in this argument, but what I wish to focus upon is the question: *which* positivist doctrine is here being attacked? I suggest that for the argument to have any force, it must be directed exclusively against epistemological positivism, and not against either a positivist conception of science that is not grounded in epistemological positivism (a possibility I have already defended), or an acceptance of the doctrine of value-freedom (defined in terms of what I have called its two 'central' claims). Yet it is clear from the writings of many critical theorists that they assume that in criticizing positivism in this way, they are criticizing all three of these doctrines. For instance, in the following passage from 'The Latest Attack on Metaphysics', Horkheimer attacks the deficiencies of positivism (which he here calls "empiricism") by claiming that there is a

"... crucial point which empirical science fails to note, namely, the common interest and the idea of a truly human existence. Empiricism declares that such ideas arise from the confusion of personal desires, moral beliefs, and sentiments with science; it regards the strict separation of values from science to be one of the most important achievements of scientific thought. Empiricism further contends that other aims may be set alongside the will to freedom and that it is not the task of science to decide which of these is right."

Here there is a definite confusion between epistemological positivism, positivist science, and value-freedom. To claim that the values of 'freedom' or 'a truly human existence' - whatever they may mean, for here we have a typical example of what I would call the 'normative simplism' of (many) critical theorists, the refusal to face the difficulties and complexities of establishing and clarifying normative standpoints, and evaluating the claims of competing values - cannot be established by

science, is not thereby to deny the possibility and legitimacy of defending such values, and employing them in a critique of society. Though epistemological positivism may well have this consequence, there are no grounds for transferring one's rejection of this position, because of this consequence, to the rejection of positivist science and value-freedom. There may, of course, be good reasons for rejecting these doctrines also, but such reasons must be of a distinctive character, and separately argued.

We find a similar set of confusions in the following passages from one of Habermas's contributions to *The Positivist Dispute in German Sociology*, 'The Analytical Theory of Science and Dialectics':

"The dualism of facts and decisions necessitates a reduction of permissible knowledge to strict empirical sciences and thereby a complete elimination of questions of life-practice from the horizon of science." ²⁸

And, describing the implications of this dualism, he claims that it means that

"... decisions relevant in practical life, whether they consist in the acceptance of principles, in the choice of a life-historical outline or in the choice of an enemy, can never be replaced or even rationalized through scientific calculation. If, however, the practical questions which have been eliminated from empirical-scientifically restricted knowledge must be utterly dismissed in this manner from the scope of rational discussions; if decisions in questions of practical life must be absolved from every instance in some way committed to rationality, then the last attempt [to provide some basis for practical decisions - R.K.] is not surprising: to secure institutionally, through a return to the closed world of mythical images and powers, a socially binding precedent for practical questions (Walter Bröcker)." ²⁹

I shall not bother to comment directly on these claims, since it should be fairly obvious, from the position I have been defending, what these comments would be. Instead, I want to suggest a link between (what I hope to have shown as) the confusions in this kind of critique of positivism, and the alternative account of social science promoted by critical theorists. Their central move is to try to develop an account of critical social theory with its own distinctive, non-positivist (and indeed non-hermeneutic, but that is another story) criteria of validity, which consist (roughly) in tying the truth-conditions of an adequate theory to its possible role in guiding a successful practice, where the 'success' of this practice is itself specified in terms of establishing an organization of society that conforms to the ideals of 'reason', 'freedom', etc.

Now I am highly sceptical about both the epistemological and political desirability of such criteria, for reasons which I cannot present here. But the point I want to make is this. It seems to me that critical theorists have partly been led to believe that such a move is necessary through their belief that, if one does not abandon a positivist conception of science and the doctrine of value-freedom, it is not possible to justify a rational critique of society, and a social science that is in various ways guided by this critical interest. But if what I have argued is correct, this reason for establishing a critical science with distinctive criteria of validity is entirely misconceived. It may well be necessary and correct to reject epistemological positivism, in order to conduct such a critique; but it is not necessary to reject value-freedom and positivist criteria of scientific validity. Indeed, I would argue that much of what critical theorists have wished to achieve can be established from within an essentially Weberian framework.

My final illustrations of confusions in the critique of positivism concern the doctrine of the scientization of politics. In *Social Theory and Political Practice*, Fay argues that there is a conceptual connection between a positivist conception of social science (his definition of which includes the doctrine of value-freedom: see section 1 above), and a particular form of scientific politics, which he terms 'policy science'. He defines such a science as:

“That set of procedures which enables one to determine the technically best course of action to adopt in order to implement a decision or achieve a goal. Here the policy scientist doesn't merely clarify the possible outcomes of certain courses of action, he actually chooses the most efficient course of action in terms of the available scientific information.”³⁰

As Fay is careful to point out, this version of a scientific politics is rather 'weaker' than its strongest form, in which *every* aspect of political decisions is thought to be scientifically resolvable. Instead, it is accepted that value-judgements have to be made, non-scientifically, to establish the goals of political action; and policy science is then allotted the task of discovering the best means for achieving such externally determined ends. Thus the dichotomy between facts and values is mapped on to that between means and ends. He proceeds, without much difficulty, to show what is wrong with this conception of policy science. Any means to a given end is itself open to evaluation by standards other than those which determine that end, for:

“...all political proposals, no matter how instrumental, will alter and shape the personal relations of at least some members of a society, and will affect the relative welfare of various classes of people; as such they embody moral notions of what is permissible, just, or right in human affairs. They are a species of moral statement.”

So it is impossible to determine the ‘technically best course of action to adopt’ by this use of a positivist social science.³¹

The crucial move made by Fay, in this attempt to criticize positivist social science via the unacceptability of its supposed consequence for politics, i.e. support for policy science, is the mapping of the means-ends relationship onto that between facts and values. That this is somehow implied by positivism is also claimed by Habermas, in ‘Analytical Theory of Science and Dialectics’:

“Since Max Weber, what had long been pragmatically clarified in the relationship between natural sciences and technology seems to have been clarified for the realm of social sciences too; namely, that scientific prognoses can be realized in technical recommendations. These recommendations distinguish between a given initial situation, alternative means and hypothetical ends; all so-called value-judgements are simply attached to the third member of this chain, whilst the if-then relations can themselves be investigated in a value-free manner. This translation presupposes, of course, that in societal practice, as in the technical domination of nature, it is always possible to isolate ends-means relations in which the value-neutrality of the means and the value-indifference of the subsidiary consequences are guaranteed; in which, then, a ‘value’ is only linked with ends so that these ends may not, for their part, be regarded as neutralized means for other ends. In those realms of practical life for which social-scientific analyses are required, none of the three conditions is, however, normally fulfilled.”³²

“Conditions which define the situations of action behave like the moments of a totality which cannot be dichotomously divided into dead and living, facts and values, into value-free means and value-laden ends without failing to grasp them as such Consequently, practical questions cannot be sufficiently answered with a purposive-rational choice of value-neutral means.”³³

Now I fully agree with Fay’s (and Habermas’s) objections to the means-ends and facts-values mapping, designed to allow the possibility of scientific judgements about ‘the best means’. It is true, also, that this move is frequently made by proponents and practitioners of ‘scientific politics’, and indeed generates what one might call a ‘scientistic mystification of political decisions’. But I can see no reason for claiming that the use of a positivist, value-free social science implies such a view. (Nor, incidentally, do I think that Weber was guilty of this; but establishing this would take too long here, for the necessary exegesis).³⁴

For, as Fay correctly argues at some length, what the knowledge produced by this kind of science enables one to do is to make conditional predictions of the form 'if certain conditions obtain, certain results will (invariably or usually) follow'.³⁵ It provides information about what would happen if certain things were done, and about what are possible (and in some cases, necessary) ways of bringing something about. But this is quite different from the idea that, in relation to a given end, the best means can be discovered independently of any further value-judgements.³⁶ To show what are the possible ways of achieving some goal, and their further consequences, does not enable us to judge which of these is 'scientifically best'; nor does showing that a certain means is necessary for achieving an end whose desirability is already accepted, entail that it is right or rational to employ that means. (Even utilitarians realize this, except where the 'goal' is simply the utility principle itself, of maximizing aggregate happiness).

4. Return to the paradox: some historical suggestions

I began this paper by pointing to the existence of a seeming paradox in the critique of positivism: that the doctrine of value-freedom, typically regarded by these critics as a hallmark of positivist social science, is employed by its most famous advocate to reject another doctrine, the scientization of politics, regarded with similar antipathy by the critics of positivism. There are, of course, several ways in which this paradox might be resolved: for instance, by arguing that Weber was mistaken in regarding value-freedom as a legitimate defence against scientific politics. However, I think Weber was right about this, and I have argued instead for a resolution that rebounds against these critics of positivism: namely, that they have misunderstood the logical relationships between different 'positivist' doctrines.

I now wish to conclude this paper by offering some rather brief and schematic remarks about the historical relationships between these four doctrines, thereby at least indicating the complexity of this history. Confining myself mainly to the nineteenth and twentieth centuries, I shall first propose an overall summary of these relationships, looking in turn at the two doctrines I began with, the scientization of politics and the Weberian conception of value-freedom. The 'histories' of these seem distinct in important respects, but are also intertwined through the position of utilitarianism, and display complex relationships to specific political standpoints, such as liberalism, socialism and 'authoritarianism'. (I should emphasize that I make no claims to any expertise in the history of ideas, and what follows is the result of occasional and amateurish reflections and speculations on my part).

The ideal of the scientization of politics - which we find well before the nineteenth century, in writers such as Hobbes, and perhaps also in some of the Enlightenment rationalists³⁷ - was articulated in the

nineteenth century with great energy and crudity by Saint-Simon (often regarded as the first self-proclaimed ‘positivist’) on the basis of an apparent belief in epistemological positivism, combined with a deeply held commitment to the virtues of science, industry, and a ‘scientific outlook’. Whether this combination is philosophically coherent, is dubious, for it could be argued that the advocacy of a scientific approach to social and political questions is not compatible with the belief that only science provides genuine knowledge, since the merits of such an approach are not themselves matters of scientific knowledge.³⁸ Nonetheless, philosophically more sophisticated thinkers than Saint-Simon have adopted the same combination: for instance, the authors of the Vienna Circle’s first ‘manifesto’ (interestingly entitled ‘The Scientific Conception of the World: The Vienna Circle’), Neurath, Carnap and Hahn, who declared that:

“endeavours toward a new organization of economic and social relations, toward the unification of mankind, toward a reform of school and education, all show an inner link with the scientific world-conception,”³⁹

and concluded their document by claiming:

“We witness the spirit of the scientific world-conception penetrating in growing measure the forms of personal and public life, in education, upbringing, architecture, and the shaping of economic and social life according to rational principles. *The scientific world-conception serves life, and life receives it.*”⁴⁰

Further, amongst what they identify as the five main “strands from the history of science and philosophy”, whose representatives’ works “were mainly read and discussed”, is included the following: “(5) Hedonism and positivist sociology: Epicurus, Hume, Bentham, J. S. Mill, Comte, Feuerbach, Marx, Spencer, Müller-Lyer, Popper-Lynkeus, Carl Menger (the elder)”.⁴¹ The inclusion in this list of several utilitarians takes us back to a point I made earlier, in section 2, that an obviously attractive view of ethics and politics, for advocates of a scientific politics, is utilitarianism. It is well-known, though, that J. S. Mill was himself highly critical of Comtean positivism: partly because he thought that Comte had not provided a necessary element in an account of science, viz, the methods of induction; partly because he believed that Comte was ‘jumping the gun’ in advocating a scientifically organized society in the absence of the requisite development of social scientific knowledge; and partly also because of the markedly illiberal, authoritarian elements in Comte’s politics⁴² (present also in Saint-Simon, who claimed, for instance, that “the cultivation of politics will be entrusted exclusively to a special class of scientists who will impose silence on all twaddle”).⁴³

This last point raises the major issue of the relations between scientific politics, utilitarianism, and the politics of liberalism, socialism and authoritarianism, to which I will return. But for now there is another aspect of Mill's position I want to mention, since it will lead us to a sketch of the second main strand: Weberian value-freedom.

Mill was a staunch defender of the dichotomy between factual and value-judgements (probably here following Hume).⁴⁴ And I think it would be reasonable also to ascribe to him the second of what I proposed as the central elements in Weber's doctrine of value-freedom, the independence of scientific criteria of validity from normative commitments. But he did believe, along with all consistent utilitarians, that once the principle of utility was accepted, all further normative questions could be scientifically decided. Thus here we have a position in which value-freedom is combined with an almost completely scientific politics. Yet, clearly, Weber's defence of value-freedom was in no way associated with utilitarianism which, for Weber, was merely one of the indefinitely large number of, ultimately, equally rational or (irrational) normative standpoints. Further, Weber's espousal of the dualism of facts and values, unlike Mill's, was rooted in Kant, or at least in the neo-Kantian traditions of the nineteenth century, very different in character from utilitarianism, epistemological positivism, or 'the scientific outlook'.

So I turn now to this Kantian background to the doctrine of value-freedom. I think it is helpful here to consider some passages from a book published in 1914 by Richard Kroner, *Kant's Weltanschauung*.⁴⁵ Kroner was a member of the Heidelberg school of neo-Kantians, which had as its two best-known figures Windelband and Rickert, both of whom appear to have had an important influence on Weber. (Lewis White Beck describes this book as "the only presentation in English of the characteristic Heidelberg interpretation of Kant").⁴⁶ Kroner gives the following overall characterization of Kant's philosophy:

"His entire philosophy receives its particular tone from a two-fold insight. On the one hand, along with modern rationalists since Descartes and Galileo, he sees, in the exactitude of mathematical knowledge, the pattern and ideal of all theoretical study of reality; on the other hand, in spite of his full appreciation of scientific truth, he does not accord it any metaphysical significance. Kant is of the opinion that the point of contact between man and the supersensible sphere is to be discerned in the facts of man's moral life, in his self-determination, and in the laws of his moral will; for it is on these laws that the dignity and freedom of man rest.... Only mathematical relations are knowable, and they are the objects which the mechanical and physical sciences can successfully treat. The world in which we as moral beings act and pursue our ends obviously cannot be penetrated by mathematical knowledge; therefore this world cannot be grasped in its reality by any theoretical [i.e.

scientific - R.K.] means.”⁴⁷

Kroner later argues that, for Kant, the limitations he places on the scope and character of scientific knowledge are the result of his view that, without these, morality and freedom would not be possible. Thus:

“If morality is possible at all, the duality of nature and freedom must exist, and its existence must be a limitation of knowledge.”⁴⁸

Further,

“Practical reason [guiding the will of the free subject - R.K.] does not know objects, it does not know nature; it knows rather the purposes of the will, its norms, its goal. The kind of knowledge which is appropriate in the field of the sciences - objective, theoretical, impersonal knowledge - cannot be applied in the fields of willing and acting.”⁴⁹

Finally, in a comment which we might reasonably interpret as indicating what would have been Kant’s attitude to positivist advocates of a scientific politics, Kroner says:

“If Kant had attempted to extend this [mathematical-physical - R.K.] method, which he deemed to be the only legitimate and feasible theoretical method for knowing reality, to the world in which we live as active beings (as indeed the disciples of materialism and naturalism would like to do), then he would have been compelled to abandon the respect he had for moral life. Within a nature interpreted mathematically no morality can exist, because there every action loses its meaning; in such a world the will cannot set any purpose for itself, since mathematics alone orders and determines all things in its own inexorable and absolute way.”

50

Clearly, we have here a view of the relations between science and norms which is very different from the ‘positivist’ doctrines of either epistemological positivism or the scientization of politics (and, incidentally, a conception of scientific knowledge which departs in some respects from what I have described as the positivist one, though this is mainly a matter of the role of the categories in Kant’s epistemology, which is not at issue in the passages I have quoted from Kroner). It is also a view of ethics that is in most respects at odds with utilitarianism which, unlike Kant, focusses exclusively upon the consequences of actions and not upon the will, and denies the Kantian claim that morality presupposes the autonomy of the transcendental subject. Its only ‘point of contact’ with utilitarianism, as I mentioned before - and which is, I think, an important area of the ‘intertwining’ I also noted - is

the acceptance of a logical dichotomy between scientific and normative judgements. It may indeed be this that is partly responsible for the way in which the Weberian doctrine of value-freedom has been associated by its critics with other 'positivist' doctrines that have a quite different historical background, via epistemological positivism and a utilitarian scientific politics.

I will conclude by noting some additional features of these historical relationships, which I think cast further light upon the character and legitimacy of the critical theorists' critique of positivism. First, whilst this critique has often involved the claim that positivism is intrinsically committed to a defence of the existing social reality, it is clear that, at some levels of analysis, this was far from true in the case of the early French positivists such as Saint-Simon. He rightly saw himself as an advocate of radical change. He was not, after all, living in an already 'scientized' society; and it may be that this charge of 'conservatism' (in a crude sense of 'preserving the status quo, whatever that may be') is partly the result of interpreting nineteenth century theorists through a twentieth century vision accustomed to the more obviously scientized character of advanced industrial societies. Admittedly Marcuse, in *Reason and Revolution*, emphasizes the radical and progressive character of (some of) the Saint-Simonians, and contrasts them with the advocacy of order by Comte. But this contrast is highly problematic. For whilst Marcuse wishes to demonstrate a connection between Comtean 'conservatism' and the epistemological claims of positivism, he entirely fails to show what difference there was between Comte's and Saint-Simon's epistemologies and their related conceptions of scientific politics, which it would be necessary to do, unless he could argue that Saint-Simon's 'progressive' politics were, logically speaking, an aberration.⁵¹

Second, in the context of the early nineteenth century, Saint-Simon's 'radicalism' consisted in, amongst other things, attacking the value of political or religious liberties, by associating these with the 'metaphysical' stage of historical development, which was to be replaced by the positive, scientific one. The "lawyers and metaphysicians", he claimed, were at one time a historically progressive group through their role "in modifying the feudal and theological system and ensuring that it did not suppress the scientific and industrial system once it began to develop". But he bemoaned the fact that the French Revolution, in which the leading part 'should' have been taken by "the industrials and the scientists", was instead 'taken over' by the lawyers and metaphysicians. It would, he said, "be superfluous to recall the strange wanderings which resulted, and the misfortunes which resulted from these wanderings."⁵² Further:

"The philosophers of the eighteenth century convinced people in general to accept the right of the individual to practice his own religion and to decide which religion his children should be taught."

“The philosophers of the nineteenth century will convince people that all children should study the same code of terrestrial morality, since the similarity of positive moral ideas is the only link which can unite men in society, and since ultimately an improvement of the social condition is nothing more than an improvement in the system of positive morality.”⁵³

I think there are obvious links here between Saint-Simon’s attitude towards the ‘historical function’ of liberal rights, and Marx’s view of the redundancy of such rights in communist society: this is one of the points at which the relationships between positivism, Marxism and ‘scientific socialism’ is so important.⁵⁴ But I cannot explore this here. Instead, I will elaborate briefly on an earlier comment, in this section, about J. S. Mill’s opposition to the illiberalism of Comte’s positivist politics.

It seems possible that a barrier to our recognizing the connections between positivism’s illiberal politics, and utilitarianism, is that we (i.e. ‘British intellectuals’) tend to identify utilitarianism with its expression in J.S. Mill’s writings, where we find the most famous defence of individual liberties, such as freedom of speech. Yet, as is often noted, there is a marked tension between the utilitarian and liberal-democratic elements in Mill’s philosophy, which emerges, for instance, in the problematic distinction between ‘higher’ and ‘lower’ pleasures, and in his possibly question-begging attempt to define ‘happiness’ so as to include the interests of ‘man as a progressive being’. One may adopt the view that this tension is indeed unresolved by Mill; or alternatively, point to the somewhat elitist character of some of Mill’s political proposals, and the legitimacy he attached to the ‘authority’ of those with the scientific and intellectual expertise appropriate for making rational decisions involving utilitarian calculations⁵⁵. But whichever view is taken, we should not allow the essay ‘On Liberty’ to blind us to the conceptual connections between utilitarianism and the apparent ‘authoritarianism’ of Saint-Simonian positivism. (Whether such authoritarianism can coherently be criticized from a non-liberal Marxism, or from a scientific socialism, is another matter.)

My final set of comments concern the Vienna Circle. I quoted earlier from its ‘manifesto’, which seems to reveal a much stronger link with early French positivism and a scientific politics than we would expect on the basis of how logical positivism has usually been presented and discussed, at least within British philosophy. My guess is that this results from the fact that it has been primarily through Ayer’s *Language, Truth and Logic* that the doctrines of the Vienna Circle have been transmitted to this audience; and there is no mention there of these political dimensions. The same is true of the account of logical positivism in another widely read book, John Passmore’s *A Hundred Years of Philosophy*.⁵⁶ And though there is a brief comment upon the political unpopularity of the Vienna Circle members in the 1930s, and on Neurath’s involvement in the Spartacist government in Munich at the end of the first world war, in Ayer’s editorial introduction to another influential book, *Logical Positivism*⁵⁷, there is no mention of those writings of Neurath in which his version of scientific

socialism is presented, such as ‘Personal Life and Class Struggle’.

Here, the links between ‘hedonism’ and ‘positivist sociology’ are taken up in an attempt to show the Epicurean and scientific bases of Marxist socialism. Thus Neurath argues that “Marxism is, consciously, the philosophy of the socialist proletariat and promises it happiness”⁵⁸; that Marx “teaches the decline of the bourgeois order and the coming of the socialist order”⁵⁹ and that “it is precisely the proletariat that is the bearer of science without metaphysics”⁶⁰. Here we see that same (and perhaps philosophically indefensible) combination of epistemological positivism, utilitarianism and scientific politics that was evident in the early French positivists, allied now with socialism. But, as I have argued throughout this paper, it is not a combination that justifies critics of positivism in their attempts to show that uncritical acceptance of the existing order is implied by the positivist conception of science; and it is clearly a set of views that is both logically and historically distinct from the philosophical foundations of the doctrine of value-freedom that we find in Max Weber.

Notes and references

1. B. Fay, *Social Theory and Political Practice*, Allen and Unwin 1975, p.13.
2. M. Horkheimer, ‘The Latest Attack on Metaphysics’, in *his Critical Theory*, trans. M. J. O’Connell et al, Herder and Herder 1972, p.164.
3. H. Marcuse, *Reason and Revolution*, Routledge and Kegan Paul, 2nd edition, 1955, p.354.
4. J. Habermas, ‘The Analytical Theory of Science and Dialectics’, in G. Adey and D. Frisby trans., *The Positivist Dispute in German Sociology*, Heinemann 1976, pp.144-149 and 158-162.
5. M. Weber, ‘The Meaning of “Ethical Neutrality” in Sociology and Economics’, in *The Methodology of the Social Sciences*, trans. and ed. E. Shils and H. Finch, The Free Press 1949.
6. R. Dahrendorf, ‘Values and Social Science’, in *his Essays in the Theory of Society*, Routledge and Kegan Paul 1968, p.2.
7. In H. Saint-Simon, *Selected Writings on Science, Industry and Social Organization*, trans. and ed. K. Taylor, Croom Helm 1975, p.209.
8. J. Habermas, *art. cit.*, p.144.
9. K. Popper, ‘The Logic of the Social Sciences’, in G. Adey and D. Frisby, trans., *op. cit.*, pp.96-98; and H. Albert, ‘Behind Positivism’s Back?’, *ibid.*, pp.248-251.
10. For a further account of the positivist conception of science, see R. Keat and J. Urry, *Social Theory as Science*, Routledge 1975/1981, ch.1.
11. K. Popper, ‘A Note on Berkeley as Precursor of Mach and Einstein’, in *his Conjectures and Refutations*, 3rd edition, Routledge and Kegan Paul 1968.
12. L. Kolakowski, *Positivist Philosophy*, Penguin 1972, chs. 1 and 2.
13. J. Habermas, *Knowledge and Human Interests*, trans. J. Shapiro, Heinemann 1972, p.67.

14. *Ibid.*, p.vii.
15. K. Popper, 'Science: Conjectures and Refutations', in his *op. cit.*, pp.39-42.
16. A. J. Ayer, *Language, Truth and Logic*, 2nd edn., Gollancz 1946, ch.5.
17. M. Schlick, *Problems of Ethics*, trans. D. Ryflin, Dover 1962, p.85.
18. *Ibid.*, p.18.
19. See especially O. Neurath, 'Personal Life and Class Struggle', in his *Empiricism and Sociology*, ed. M. Neurath and R. S. Cohen, Reidel 1973. (The article was first published in 1928.)
20. B. Fay, *op. cit.*, pp.22-23.
21. See, e.g., the discussion of this issue in M. Mandelbaum, 'Two Moot Issues in Mill's Utilitarianism', in J. B. Schneewind (ed), *Mill: A Collection of Critical Essays*, Macmillan 1968.
22. H. Saint-Simon, *op. cit.*, p.207.
23. *Ibid.*, p.208.
24. *Ibid.*, p.113.
25. R. Keat and J. Urry, *op.cit.*, ch.9.
26. But Weber did argue that such normative standpoints can be rationally evaluated to a significant extent: see *art. cit.*, pp.18-21.
27. See K. Popper, as in note 11 above; and P. Duhem, *The Aim and Structure of Physical Theory*, trans. P. Wiener, Princeton University Press 1954.
28. J. Habermas, *art. cit.*, p.145.
29. *Ibid.*, p.146.
30. B. Fay, *op. cit.*, p.14.
31. *Ibid.*, p.52.
32. J. Habermas, *art. cit.*, p.159.
33. *Ibid.*, p.160.
34. Some difficulties of interpretation arise because of Weber's mistaken view that, to say that 'a' causes 'b', entails that 'a' is a necessary condition of 'b'. See his *art. cit.*, p.37.
35. B. Fay, *op. cit.*, pp.31-36.
36. For an interesting account of how the 'engineering' concept of 'efficiency' influenced Saint-Simon's view of scientific politics, see F. Hayek, *The Counter-Revolution of Science*, Free Press 1955, especially pp.94-107.
37. On this latter point, see F. Hayek, *op. cit.*, p.107.
38. This is argued by J. Habermas, in 'Dogmatism, Reason and Decision' in his *Theory and Practice*, trans. J. Viertel, Heinemann, 1974.
39. 'The Scientific Conception of the World: The Vienna Circle' in O. Neurath, *op. cit.*, p.305. (This article was first published in 1929.)

40. *Ibid.*, p.318.
41. *Ibid.*, pp.303-304.
42. J. S. Mill, *Auguste Comte and Positivism*, Ann Arbor, 1961.
43. H. Saint-Simon, *op. cit.*, p.230.
44. For a discussion of this, see A. Ryan, *J. S. Mill*, Routledge and Kegan Paul 1974, pp.101-104.
45. R. Kroner, *Kant's Weltanschauung*, trans. J. E. Smith, University of Chicago Press 1956.
46. L. W. Beck, 'Neo-Kantianism', in *The Encyclopedia of Philosophy*, ed. P. Edwards, Macmillan 1967, vol.5, p.473.
47. R. Kroner, *op. cit.*, p.2.
48. *Ibid.*, p.62.
49. *Ibid.*, p.63.
50. *Ibid.*, p.50.
51. H. Marcuse, *op. cit.*, pp.323-360.
52. H. Saint-Simon, *op. cit.*, pp.227-228.
53. *Ibid.*, footnote to p.170.
54. F. Hayek, *op. cit.*, p.167, claims that the phrase 'scientific socialism' was first used by K. Grün in 1845, applied to the work of Saint-Simon.
55. See the discussion of Mill's conception of authority, and its relation to his view of Comtean positivism, by R. B. Friedman, 'An Introduction to Mill's Theory of Authority', in R. Schneewind (ed), *op. cit.*.
56. J. Passmore, *A Hundred Years of Philosophy*, Penguin 1968, ch.16.
57. A. J. Ayer (ed), *Logical Positivism*, Free Press 1959, p.7.
58. O. Neurath, *art. cit.*, p.289.
59. *Ibid.*, p.290.
60. *Ibid.*, p.260.