

SCIENCE AND POLITICS

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NO one could complain that the nineteenth Riddell Memorial Lectures in the University of Durham are lacking in topicality*. The terrifying efficiency of science, the terrifying inefficiency of politics, make, in combination, probably the most difficult and almost certainly the most urgent problem on the world's agenda. For much of the pressure of contemporary events, much of the strain that the whole world feels and wilts under, comes from the knowledge that the human race has set itself a problem which it may quite possibly prove to be unable to solve. We are faced, in a far truer sense than we were in 1914, with the possibility of a "war that will end war".

This problem is present in Prof. Ritchie's mind and it gives an especial urgency to the general problem that he is discussing, but his theme is not just the "control of the atom bomb". It is the wider theme of the role of science (which, of course, means of men of science) in the modern world and their relationship with the modern State.

It is also the theme of the meaning of the word 'science' in political discussion. Prof. Ritchie is right in linking the two problems, for the discussion of the first is clouded and often made pointless by ambiguity about the second. Faced with the immense power for good and for mischief that modern science puts into the hands of the modern State, the man-in-the-street (including the man-in-the-street who spends his working days in a laboratory) is bewildered and indignant. If he is a scientist man-in-the-street, he is alarmed at his own moral responsibility and tempted to think that the evil comes from letting the control of the scientific resources of the world, or of his own country, fall into wrong, that is, unscientific hands. So he dallies with the dream of a political society in which power and responsibility are united in the same hands. Since the world can be destroyed by men of science, why should not the power to save the world be put into their hands? Sometimes this hankering after a society 'scientifically' controlled is merely a revival of the old dreams of Platonic guardians or H. G. Wells' "Samurai". More commonly, to-day, it is based on a belief that immense possibilities for good are being thwarted and immense possibilities for evil being created by rulers who, neither by training nor by interest, understand the world that science has so thoroughly upset.

As Prof. Ritchie suggests, this dream is often given a local habitation and a name in the U.S.S.R.; and, as Prof. Ritchie also suggests, this dream is only a dream. In the Soviet Union, men of science are privileged people—like ballet dancers. They are not rulers and, so far as we know anything of the distribution of power in Russia, there is no Russian equivalent of Sir Stafford Cripps, no political ruler who has had a first-class scientific education. It is perhaps worth noting that this dream of a land where science is taken seriously is not new, and the country to which British men of science looked enviously, a generation ago, was Germany; the proof of the superior regard of an enlightened State for science was the Kaiser Wilhelm Institute in Berlin. There

* "Science and Politics", by Prof. A. D. Ritchie. (University of Durham, Riddell Memorial Lectures.) (London: Oxford University Press, 1947.) 2s. 6d. net.

is, that is to say, no necessary relationship between a 'right' political organisation and a low regard for science. The Prussian army was once described by an optimistic admirer as "science in a Pickelhaube". Nor is there any necessary connexion between the man of science and a given attitude to politics. If most British, French and, probably, American men of science are 'left', that is due to social and historical conditions in their countries, not to any inherent bias due to a scientific training. Political credulity is quite compatible with a very high degree of scientific accomplishment, as the case of Germany shows. When we say, to-day, that a world so largely remade by science calls for 'scientific government', and by that mean a government by scientists, we are begging a great many questions. We are assuming that there is a unified class of 'scientists' and that this class has an identifiable and uniformly admirable attitude to politics. These things are to be proved, not assumed.

Prof. Ritchie raises, too, the question of the fitness of the man of science as such for political life. It is a question that might be further developed with great profit. It is often confused with the question of the desirability of having a great number of people in politics who have had a scientific education. The concealed assumption in arguments on these topics is that the man of science of the first order has something especially valuable to contribute to politics, and that the way to contribute it is for him to become a politician. The first proposition is, I think, indisputable. But it does not mean more than that in the fields in which the man of science is an expert he should be able to make his opinion heard, that there should be no danger of only one group or individual being heard, that the highest level of relevant public opinion in the scientific field concerned should be given all facilities for influencing general public opinion (including the public opinion of politicians).

It is also desirable that projects calling for a high degree of scientific expertise be planned by people who know how science does, in fact, progress. Prof. Ritchie points out that there is no agreement on how science *does* progress, though he has no doubt that the real principle is that "the wind bloweth where it listeth". In the case of technology, Prof. Ritchie both accepts and welcomes far more general control of experiment, far more general imposition of ends than we have been accustomed to. He accepts these limitations less, one might guess, because he thinks that this is bound to promote technical progress, than because he sees the dangers of uncontrolled 'progress', of technical advances made without its being anybody's business to question or define the 'good' of such progress.

But Prof. Ritchie sees another danger in the credulous and indeed superstitious acceptance of the magical claims of science. That what the man-in-the-street often means by science is an unintelligible magical power is suggested by the way the popular Press treats any real or alleged scientific achievement, by the low standard of critical reporting in this field and by the fine, general confusion of very different kinds of scientific technique which is the attitude of millions who yet smile pityingly at the superstitions of their ancestors. What is admired or worshipped is not scientific methods but a mysterious power. "In short, to be scientific is to be powerful; to possess the 'mana' or power of the witch doctor so much admired and feared by primitive man." There is good reason to fear that a popular decision to put

power into the hands of 'scientists' would be far from making for general progress or even safety. Scientific demagogues, scientific revivalists, are quite serious possibilities. Indeed, there is a danger that if real or fictitious scientific attainments were a way to political power, the last state of science (and politics) might be worse than the first. For both science and politics are very jealous taskmasters. It is almost certain that no man of science of the first order could keep his scientific rank and live a full political life at the same time. Indeed, all the pressures of both ways of life are against such a combination. It is not only that science changes rapidly, but that politics is more and more a full-time job. It is not a matter of a few interventions in debate, of a few deputations to ministers, of service on an occasional royal commission. With the great modern extension of the powers of the State, the duties of an active politician have more and more become incompatible with the successful pursuit of any other career. It is a problem that affects more people than men of science. It is, for example, doubtful if even a university constituency to-day would put up with a member doing so little direct political work as Edinburgh agreed to tolerate in the case of Macaulay. If it be said that this is only true of democratic countries (in the Western sense), it can be replied that it does not matter how a great man of science fritters away his time, whether in democratic or dictatorial politics; the price of power is the same—eternal vigilance and a consequent neglect of his primary claim to power, his scientific excellence.

It is quite another matter to suggest ways in which the highest scientific opinion should be given opportunities of access to an effective sounding board. Perhaps there should be more university Members of Parliament, more men of science promoted to the House of Lords, more weight given to the considered judgment of organised bodies like the Royal Society; but this is far from the rule of the State by men of science. It is a truth, possibly a sad truth, that the rulers of a State are always politicians, and if they have been men of science, the decision as to whether they have done well or ill by leaving science for politics depends on the degree to which their transfer of allegiance has been a loss to science or a gain to politics; and that in every case is an individual judgment.

Carefully and ingeniously distinguishing between various kinds of scientific technique, Prof. Ritchie takes up the claims of the so-called 'social sciences'. It is true that this ambiguous term is often used merely to placate contemporary taste, to give the impression that the economist or historian or anthropologist or statistician is doing *real* work comparable in importance and in method to work on the atom bomb or on bacteriological warfare or on new applications of nylon or penicillin. But this confidence trick does neither the physical nor the social sciences much good. It is, perhaps, in a natural reaction against this trick that Prof. Ritchie scales down the claims of the social sciences. "The rules already formulated are generally only assertions of what happens for the most part, not of what happens always; they resemble the looser rules of biology, not the stricter ones of physics." This is true, but the application to social problems even of "the looser rules of biology" is highly desirable. Prof. Ritchie thinks that "if there is to be social science which produces control of human beings, legitimate yet in some ways comparable to that control of physical

objects which is the fruit of physical science, should it not be a science of persuasion?". It should, but one drawback of a society largely governed by persuasion is that persuasion becomes an end in itself; winning over the jury, the House of Commons, the electorate is all that matters. Such a society over-values the arts of persuasion, and the skilled persuader is often genuinely angered when exterior forces refuse to be persuaded as a mass meeting can be, or when a popular vote repealing arithmetic or abolishing rain on holidays proves ineffective. It is in breeding a habit of respect for established truths that a scientific education, or any rigorous education, is useful to the State and to the would-be statesman. 'Social science' is doubly useful in that it can or should breed respect for the awkward fact and that it brings to the notice of the ruler the existence of the awkward fact. Prof. Ritchie goes too far, surely, when he writes "there is one genuine improvement to be recorded of the last 150 years that can definitely count as scientific: i.e. the collection and use of social statistics". That the growth and improvement of statistical methods is one of the most valuable conquests of the social sciences is undoubted. But statistics as such may be mere information; a statistician may have no very helpful ideas about what questions to ask or any clear idea of what to do with his own answers. Social scientists must continually ask themselves, as Prof. Lynd recommends them to do, "knowledge for what?". Statistical questions and answers are often about categories which must, so far as is humanly possible, be defined before the statistical question can be usefully put. Mere knowledge of numbers of Hindus and Moslems in India is barren unless we have some idea of what we mean by Hindus and Moslems. Surely another great gain of the past 150 years has been an extension of sympathetic curiosity about human society, so that we do not now think of China or India or even of savage societies exclusively in our own terms? We do know a great deal more about the mechanisms of other societies and indeed about the mechanisms of our own society than was known 150 years ago—or much later. Anthropology and sociology have not been merely efforts in cataloguing (though many books in these fields have been that and nothing more).

Primitive as it is, social science is not as primitive as it was. In its methodology it is not like physics or even the biological sciences, and its results are less certain, less general, less permanent. But into the study of human affairs something of the spirit of the exact sciences has been imported, and one fairly well established result has been the understanding of the great differences which there must be between the exact sciences and the would-be sciences of social organisation and human behaviour. The acceptance of as much of the spirit of the exact sciences as human frailty and the character of the materials permits, the acceptance of the idea that an exact, infallible, quasi-mathematical science of society is impossible, these results are not everything, but they are something. If Prof. Ritchie's lectures devote more space to eradicating error and exposing false analogies than to laying down the lines of a scientific politics, his time and his readers' time has not been wasted, since the weeds tend to grow up again, and since the new Riddell Lectures with great skill bring home the nature of the problem, both to the reader who thinks that the creation of a social science is easy and to the reader who thinks that it is superfluous.