

Popper's Views on Natural and Social
 Science
 by Colin Sampson
 CONTENTS

Introduction 1

PART ONE
 GENERAL METHODOLOGY

1. Metaphysics and Science	11
2. Growth of Knowledge	21
3. Deductive Knowledge	27
4. Justification	31
5. Pragmatism	38
6. Inductive Probability	44
7. The Conjectural Method	51
8. Objectivity and Truth	58
9. Causal Laws, Probabilistic Laws and Models	64
10. A World of Propensities	70
11. Metaphysical Research Programmes	78
12. Evolutionary Epistemology	84
13. A Case for Indeterminism	92
14. Critique of Quantum Mechanics	99

11-30
 19
 30-30

PART TWO
 APPLICATIONS TO SOCIAL SCIENCE

15. Critique of Historicist Views	109
16. Holistic Planning	117
17. Situational Logic	122
18. Piecemeal Planning	132
19. Individualism	138
20. Models and Individualism	144
21. Institutions and Traditions	149
22. The Role of History	155
23. An Application to Economics	160
24. Critical Economists	165
25. Relevance to Economics	172

Brill 1993

Conclusion	180
Appendices	
I. The Birth of <i>The Open Society</i> : a Personal Reminiscence	183
II. Popper and Hayek on Piecemeal Social Engineering	191
III. Advice to Russian Readers of <i>The Open Society</i>	198
Bibliography	200
Index	203

man. Raised in a talented and cultured family, he became a youth worker in Alfred Adler's clinic, trained as a carpenter, engaged in communist activism, studied music, then psychology, mathematics, physics and philosophy, and served as a school teacher before becoming a professional philosopher. These multifarious activities, moreover, took place in a great intellectual centre, Vienna, during a period of remarkable political and intellectual ferment. It stimulated and enriched a curious and penetrating mind that was capable of quickly grasping, and mastering, a variety of intellectual fields, uninhibited by blind respect for any authority and independent of influential schools or circles.

His admiring friend and collaborator Sir John Eccles has asserted that: 'an appropriate tribute to Karl Popper is to say that he has been one of the foremost creative intellects in this century in this great enterprise of conserving and further adding to the world of objective knowledge'.⁵ This contribution has been a very general one, making not so much advances in any particular science, as in giving illuminating interpretations of important theories—in probability, quantum mechanics and biology—and in showing the conditions needed for advancing objective knowledge over a very wide front which includes the social as well as the natural sciences.

APPENDIX ONE

THE BIRTH OF *THE OPEN SOCIETY*:
A PERSONAL REMINISCENCE

Two remarkable things about *The Open Society* are that this great work of scholarship was produced under very unfavourable circumstances for research, and that there was considerable difficulty in getting it published.

In 1937 Dr Karl Popper, a 35-year old Austrian refugee, joined the small Department that taught Philosophy and Psychology in Canterbury University College, Christchurch, a constituent college of the then federal University of New Zealand. He was given a heavy teaching burden as the only philosopher, and it was made more onerous by continual harassment from the psychologist who was Head of the Department. For economic reasons Popper also undertook some teaching for the local Workers' Educational Association, and he was in demand for addresses to student and other societies. Much of his teaching was evening work in the days when the constituent colleges catered largely for part-time students. There was, of course, nothing in the way of research grants for staff who were not natural scientists, and very little for those who were. Nor did he have any secretarial assistance from the College; the typing of his many drafts and letters was all done by his exceptionally cooperating wife, Hennie. The Head of his Department even went so far as to make him buy paper used for non-teaching purposes. There was no effective authority to whom appeal could be made; the governing body of Canterbury University College (as I was myself warned soon after taking up an appointment there) seemed to regard time spent on research as time filched from the primary job of teaching.¹ It was not until Popper left New Zealand, and partly through his efforts², that its universities recognized research as a normal facet of their teachers' work.

¹ It was predominantly a lay body and although there was a kindly and scholarly Rector, James Hight, who was sympathetic to Popper, there was also a powerful Registrar, who had little personal contact with the academics and much influence with the Council.

² The official history states: 'Popper's most significant achievement at the College was to force the research door open. . . . the movement he fathered was to become an irresistible force in the postwar years'. W.J. Gardner, E.T. Beardsley

⁵ *The Philosophy of Karl Popper*, p. 369.

Popper was also handicapped by a paucity of both library resources and intellectual contacts³. He had been unable to bring more than a few of his own books to New Zealand, and the College library was very small, particularly deficient in non-English books (beyond literary works for the language departments)⁴. The few other professional philosophers were all in distant colleges, the nearest and most valuable being John Findlay, then a professor in Dunedin, 200 miles away, with whom he developed a warm friendship. He also corresponded with Henry Forder, the Professor of Mathematics in far away Auckland, who was interested in modern logic. But he quickly attracted the friendship of some of Canterbury's natural scientists⁵ and that meant much to him as he tells in *Unended Quest*, his intellectual autobiography.

They could not, of course, help him with political philosophy, and there were no departments of politics in the University of New Zealand. He had come to Christchurch with the material of an address which he gave, in 1936, to Hayek's seminar at the London School of Economics, and which was to become his *Poverty of Historicism*. Soon after arrival he began to shape this material into an article, and discussed it with Harold Larsen, a temporary lecturer in the Department of Economics, but Larsen left for London late in 1938.

Early in the following year I came to Christchurch as the only lecturer in economics, and very soon was visited by Karl Popper who charmingly introduced himself and asked for help such as Larsen had given him. As he put it, his English was bad and he was ignorant of the social sciences, so that he needed help from someone like me. I felt confident about assisting him with the English language, but less confident that a 24-year old lecturer of quite limited experience could render the same service with the social sciences.

As it quickly turned out, my confidence in regard to English was misplaced. Karl's command of the language was, naturally,

and T.E. Carter, *History of the University of Canterbury*, pp. 264-65.

³ He was also handicapped by poor accommodation as his 'study' was a small room in a ramshackle wooden building above a carpenter's shop where a buzz-saw was often in operation.

⁴ In 1934 the College library had only 15,000 books and a budget of £340. As a further indication of the very limited resources of university libraries in New Zealand at this time I may mention that, when I became Head of the Department of Economics at Auckland University College in 1946, my allocation for books was a mere £25 a year.

⁵ The main ones were Hugh Parton, a physical chemist, Robin Allen, a geologist

then imperfect so that my pencil made many rapid changes to what he put before me. But, as he also tells in *Unended Quest*, his first book (*Die beiden Grundprobleme der Erkenntnistheorie*) had been most critically read by Robert Lammer who had insisted that everything be made crystal clear, a lesson which Karl took permanently to heart and which he applied to my corrections. I had to justify all of them and was often in difficulty when confronted by Fowler's *Modern English Usage*, which was then Karl's main recreational reading—along with stories about Dr Dolittle⁶. I had also, of course, like almost everyone else beyond Vienna's philosophical circles, no initial understanding of the methodological ideas which Karl had recently published in *Der Logik der Forschung*, and which he was now trying to apply to social science. I had unwittingly begun an informal post-graduate course in which, besides arguing with him about English, I learnt something about epistemology, natural science, probability and mathematics in return for a little help in regard to economics. More than that, our close friendship led to discussions over a wide range of subjects, with wonderful insights into the political conditions and intellectual life of postwar Austria and its neighbours. In his inimitable way, he stimulated my mind and widened its horizon. I have always been most grateful to him for that, and also for much personal kindness.

Work on the *Poverty* article was soon upset by the outbreak of war. I remember our sense of despair for Europe when listening together to a BBC report of Paul Reynaud's final appeal to the United States as France was succumbing to Hitler's guns, tanks and planes. Karl had already told me that he felt the still far from completed article was too abstract for wide appreciation, and that he would embark on a companion article to be called 'Marginal Notes on the History of Historicism'. He now regarded both these articles as his war work, and four years of most intense labour went into writing them. But much higher priority was given to the second which became *The Open Society and Its Enemies*, although this title was not adopted until shortly before publication.

and next-door neighbour, Frederick White, a physicist, and George Roth, a radiologist. They all became enthusiastic converts to his views about the methodology of the natural sciences, which he expounded in a number of voluntary addresses. Parton and Allen, in particular, joined him in a fight to have the local universities recognize the place of research.

⁶ Karl had a strong sympathy with children and liked good stories for them. I don't think he missed seeing, during his time in Christchurch, any talkie of Deanna Durbin, an appealing child star who appeared in singing roles.

Karl increased not only his own research effort but also his demands on my own time, somewhat to the resentment of the girl I had married within three months of my appointment to Canterbury University College, although our two wives also became warm friends. He now, however, had help from Henry Broadhead, the scholarly lecturer in Classics, with that half of the book which is devoted to Plato and in which authoritative translations and interpretations of this revered philosopher are sharply challenged. Apart from linguistic help, and giving Karl opportunity (which he always needed) to clarify his ideas by talking about them, my own contribution was mainly to the chapters on Marx. Like Karl, I had delved into Marxist literature during radical student days, and he seized upon my copy of Emile Burns's *Handbook of Marxism*. Our collaboration ceased in May 1942 when I entered the Royal New Zealand Air Force and was soon posted overseas. But it was not long before Margaret Dalziel, a new lecturer in English, came to help him put both *The Open Society* and *The Poverty of Historicism* into final shape.

I returned to Christchurch in May 1944 to spend there what were to be my last fifteen months in the RNZAF and so resumed personal contact with Karl, although necessarily a much more limited one than before. He told me that both the *Poverty* and *The Open Society* had been accepted for publication, but only after a most frustrating period. *Mind*, the leading journal of philosophy in Britain, had rejected the *Poverty* as being insufficiently philosophical. This had grown so long that, when eventually accepted by *Economica*, it had to be published as three articles. *The Open Society* had been sent to a friend in the United States in the hope of arranging quick publication in a country which was much less affected by wartime shortages of paper than was Britain. His friend consulted other friends, and they felt so dubious about the book that they asked a well-known scholar for an evaluation. It was so unfavourable that they did not submit the book to a publisher. Karl was very upset; all this had cost him months of delay in finding a publisher, and unfavourable opinions are discouraging. He fully realized that, over and above wartime difficulties in publishing books, his own risked rejection because of its severe criticisms of Plato, Hegel, Marx, historicism, socialism and much of sociology, —all more influential than they have now become.

But the clouds of despair began to break when, by chance, he was given the address of a family friend, Ernst Gombrich, the art historian, who was then working for the BBC in Reading. Gombrich had responded at once to Karl's appeal for help in

finding a publisher for *The Open Society*, although it took many more months before one was found. In April 1943, Karl had sent Gombrich a list of possible publishers, in order of preference, together with many suggestions about how they should be approached. At the same time he had written to both Hayek and Susan Stebbing, asking them to assist Gombrich in this task, and soon after wrote in a similar vein to Herman Levy; he had met all three during the time he spent in England before going to New Zealand. Towards the end of this year he also sent to Hayek the three parts of the *Poverty*, asking for help in getting them published also. Hayek was greatly impressed by both the book and the articles, so much so that, as Karl told me in confidence, Hayek had raised the possibility of Karl coming to the LSE as a Reader.

By this time he had become so dissatisfied with his own academic conditions in Christchurch that he was anxious to escape from them; a return to the intellectual life of Europe, a congenial institution, and a much better salary were very inviting⁷. But he realized that Hayek's prospect was quite uncertain and would, in any case, involve considerable delay. He also felt that his chances would be much improved if he could add the book and the articles to his list of publications, and that made him desperate to have them published as soon as possible.

Before long Hayek expressed willingness to publish the articles in *Economica*, which he then edited, provided that they could be somewhat reduced. It was not until a full year after my return to Christchurch that Karl had the satisfaction of seeing the first of them published, after a good deal of further work in satisfying Hayek's reasonable requirements and in making his own improvements. Meanwhile the joint efforts of Gombrich and Hayek to find a publisher for *The Open Society* were not succeeding. Cambridge University Press had turned it down, and unsuccessful approaches were then made consecutively to other English publishers. Early in 1944 Hayek tried Routledge where Herbert Reade found the book very impressive and sent a contract to Karl in May⁸.

⁷ In spite of personal austerity the Poppers had difficulty in keeping their expenditure within their income. They had a heavy mortgage, Karl had taken out an expensive insurance policy in order to protect Hennie in the event of his death, and he contributed something towards the care of an ill sister by the Swiss Red Cross.

⁸ Karl and Hennie celebrated this good news by going to a local beach and indulging themselves with ice creams. He has a very sweet tooth, evidenced also by his liking for chocolate, upon which he often lunched.

That was an enormous relief, but Karl now began to send many corrections and additions for the ever patient Gombrich to make in the text, and to urge Reade that the book be published quickly. Gombrich also had a good deal to do in regard to Karl's application for the LSE Readership which had now been advertised.

The strain of all this, on top of a heavy teaching load and continued harassment, had undermined his health. He was doing with very little sleep as he had spent most of his nights getting the last part of the *Poverty* and some of *The Open Society* into final shape. His blood pressure became very low, so that his doctor put him on to a variety of tablets and injections. On medical advice he also took two short holidays in the Southern Alps towards the end of 1944, and felt better for them. The improvement, however, was temporary as before long he was suffering from a burnt back, toothache, colds and sore throats. Nevertheless he went, at the invitation of John Eccles, the physiologist, to give most successful lectures on scientific methodology at the Otago Medical School, and was urged to apply for the Chair of Philosophy which his friend Findlay was vacating in order to return to South Africa. It was not unattractive to him, and he might have gone to Otago but for a cable from Hayek telling of his appointment to the LSE, a post which he definitely preferred. (He had already declined an invitation from the University of Sydney owing to some fuss about the appointment of an enemy alien.)

After signing his contract with the LSE, in May 1945, Karl set about what proved to be a tiresome business of getting exit permits and nationalization from New Zealand, entry permits into England, and shipping passages. It was not until late November that he and Hennie sailed from Auckland. I saw them just before they left as I had come to be interviewed for the local Chair of Economics⁹ and recall that Karl was taking, for reading on the voyage, *The Theory of Games and Economic Behaviour* which had just appeared from the pens of von Neumann and Morgenstern. Such was his idea of relaxation.

Within a few months of their arrival in London the final article of the *Poverty* appeared in *Economica* and the *Open Society* came

to our nearby flat between afternoon and evening lectures, refusing offers of food beyond chocolate or other cake.

⁹ I got it largely because Karl had represented my merits to his influential friend Forder, who persuaded those responsible for making the appointment to take me seriously.

into the bookshops. After eight years of comparative obscurity in a small and distant university college, Karl became almost immediately famous in a great intellectual centre, where he stayed for the rest of his salaried career. Hayek's *The Road to Serfdom* had appeared a little earlier than *The Open Society*, and both attracted wide attention for their complementary and striking exposures of the intellectual roots of totalitarianism and the dangers of its various manifestations. Some attention was also given to Karl's methodological ideas as explained in the *Poverty* articles, but it was not until another fifteen years that they became fully available to English readers with the publication of *The Logic of Scientific Discovery*, the translation and extension of his 1934 *Logik*.

It and the *Postscript*, completed in 1956 but not published until it appeared in 1982–1983 as three volumes edited by William Bartley—*Realism and the Aim of Science*, *Quantum Theory and the Schism in Physics*, and *The Open Universe*—, are Karl's towering intellectual achievement, although he has since written much else of prime interest, more especially in connection with his important ideas of 'evolutionary epistemology' and a 'propensity theory' of probabilities. But, after leaving New Zealand, he wrote little about the problems of the social sciences, and although some of his terms came to be widely used by economic theorists, they seldom interpreted them properly or realized their import. Nor did the *Logic* have a better reception from philosophers, especially in English speaking countries, mainly perhaps because of their absorptions with various forms of logical positivism, linguistic analysis, Marxism or, more vulgarly, with trendy social issues.

Karl's main influence has been on natural scientists and on thinking people outside universities, especially in Continental Europe. The Royal Society has elected him to a fellowship, and similar honours have come from foreign academies of science. His books have sold widely, and gone through many editions and translations. He has, moreover, received two royal honours, many honorary doctorates and three other prestigious international awards¹⁰. No other philosopher, living or dead, has had so much public recognition yet such professional neglect.

The Open Society is the most popular of all his books; up to 1984 it has gone through five editions, and the last edition through

¹⁰ The Danish Sonning Prize, the Alexis de Tocqueville Prize, and the Catalan Prize. In 1992 he was also to receive the Kyoto Prize.

six reprints. In 1989 a sixth edition appeared. Philosophers themselves have praised it highly,—Russell, Ryle and Berlin among them. The reason for its success may well be that it gives much more than a thorough exposure of the fallacies of historicism and collectivism—it gives the soundest case for a liberalism that is suffused with both rational and humane values. But it should be read together with the *Poverty*—because, as this account shows, in spite of the *Poverty*'s less lively style and narrower range, both are aspects of the same analysis.

That, too, is the case with the *Logic* and its *Postscript*. In this sense, Karl has written only two books, both master works, as the others¹¹ can be regarded as collections of important essays. For all of them, the main assistance Karl had was given by his remarkable wife, and especially during the difficult times for the first three—the *Logik*, *The Open Society*, and *The Poverty*. Times so difficult, and the tasks so great, that I regard these books as a triumph of spirit as well as a triumph of mind.

¹¹ Except for *The Self and Its Brain*, a joint work with John Eccles.

APPENDIX TWO

POPPER AND HAYEK ON PIECEMEAL SOCIAL ENGINEERING

But never, and this is the essential point in the matter under review, may science dispense with testing for their suitability those institutions which have come about 'organically'. It must, when careful investigation so requires, change and better them according to the measure of scientific insight and the practical experience at hand. No era may renounce this 'calling'.

Carl Menger

When Hayek and Popper were young men both were socialists, Hayek a Fabian and Popper a communist. It has been said that anyone with a heart is a socialist in his youth, and they had special reasons to be one. Even before World War I, when Vienna was the glittering capital of a large empire, it had much poverty, and that stirred their consciences. After that war there was far worse poverty and a great ferment of Marxist ideas, stimulated by the Russian Revolution and by enthusiasm for idealistic policies of the Social Democrats who governed the city.

But the Marxists, of course, did not have it all their own way, even in Vienna. Their ideas were sharply challenged by some members of the Austrian School of Economics, and especially by Ludwig von Mises who, seizing without acknowledgment ideas of his teacher, Wieser, published a seminal article, *Economic Calculation in the Socialist Commonwealth* (1922). It demonstrated the impossibility of rational economic calculation, and so of rational decision making, in a centrally planned economy. Hayek, who had graduated from the University of Vienna with two doctorates, participated in Mises' famous seminar, and became a complete convert to his views about the superior merits of a competitive economy.

Popper had a different conversion to a similar viewpoint. After his father's fortune was lost in the postwar inflation he had gone to live in a kind of commune at a disused military hospital, and became a communist activist. But he was soon repelled by the egotistical assumption of his bourgeois comrades that, after the revolution, *they* would become commissars, and tried to make himself more of a proletarian by apprenticeship to an old cabinet maker. He became still more repelled by the irresponsibility of Party leaders who led young people to stage a demonstration that

provoked the police to fire and kill some of them. Already a keen interest in science had brought him to reject dogmatic theories, such as Marxism had become, theories that claimed infallible knowledge of the workings and future of capitalist society. So he ceased to be a communist, nor did he become a member of the Social Democratic Party because it, too, was dogmatically Marxist. Yet he admired much of the Party's social work for the people of Vienna, saw them as the only possible defence against the dire threat of fascism, and retained a strong belief in equality. Before, long, however, he became convinced that social equality, much as he valued it, was incompatible with the superior value of liberty.

Hayek and Popper, then, seem to have come, in their different ways, to much the same view of socialism. And, near the close of World War II, each published an important book defending libertarian and democratic institutions against totalitarian propaganda and influences. Hayek's *The Road to Serfdom* came out in 1944, and Popper's *The Open Society and Its Enemies* in 1945, although it had been completed two years earlier.

At this time their views were much in harmony. Both gave devastating, although somewhat different, critiques of collectivist planning. Hayek was most concerned to argue the merits of competition or, as he later called it, 'the extended order of cooperation', and Popper those of 'piecemeal social engineering'. Yet Hayek, at that time, was not an unqualified believer in *laissez-faire*. Early in his book he said: 'Probably nothing has done more harm to the liberal cause than the wooden insistence of some liberals on certain rules of thumb, above all on the principles of *laissez-faire*. (p. 13) He stressed, of course, that because competition is 'the only method by which our activities can be adjusted to each other without coercive or arbitrary intervention of authority' we should 'make the best possible use of forces of competition as a means of coordinating human efforts'. (p. 27) Nevertheless measures to control the use of dangerous substances, to require certain sanitary arrangements, or to limit working hours are 'fully compatible with the preservation of competition', provided that 'they affect all potential producers equally and are not used as an indirect way of controlling prices or quantities'. (p. 28) There are, too, cases where some services cannot be provided at a price so that competition is impracticable, and other cases where use of property inflicts uncompensated damage on third parties; e.g. some types of farming, deforestation, or smoke and noise from factories. In such cases, other arrangements

have to be made. (pp. 28–29) 'Nor', he said, 'is the preservation of competition incompatible with an extensive system of social services—so long as the organization of these services is not designed in such a way as to make competition ineffective over wide fields.' (p. 28)

Popper's emphasis was more on liberty and rationality than on economic efficiency. He did not doubt that there are social evils, notably mass unemployment, poverty and preventable disease. Nor did he doubt that Marx's view about such evils increasing under capitalism had been made obsolete, in democratic countries, by successful social reforms. But he warned that, although such evils could be reduced by piecemeal social engineering, this has to be attempted in ways which do not damage democracy by increasing unduly the coercive power of the state, and in ways which allow for critical discussion and possible revision, or even scrapping, of attempted reforms. Only if reform or innovation of social institutions is undertaken in a critical and experimental way can rational results be expected.

This view reflects the primacy of individual liberty in Popper's scale of social values. He did not, however, entirely give up the ideal of equality which had been, for him, the main attraction of communism. It was modified to a high priority for protecting the poor, and to an emphasis on alleviating remediable human suffering. There is a footnote in *The Open Society* which says that, because 'all moral urgency has its basis in the urgency of suffering or pain' we should replace the Utilitarian prescription of maximizing happiness by that of minimizing suffering.¹ It is, surely, quite monstrous to hold that some people's pain can be symmetrically offset by other people's pleasure. Any full-scale attempt, moreover, to realize the Utilitarian prescription would tend to promote dictatorship because individual tastes differ and so would have to be moulded or suppressed under any serious attempt to promote general happiness or welfare. But Popper saw no reason against attempts to shape social institutions in ways that would reduce suffering, and even advocated that that this aim should become a fundamental principle of public policy, although not the only one. Preservation of democracy and liberty would rank higher.

That was one strain of Popper's thought about piecemeal social engineering. Another came from his epistemological view that science is all a matter of trial and error in reaching better

¹ Fourth edition, Vol II p. 304.

approximations to truth about the phenomena which it studies. Trial involves bold conjectures about the behaviour of phenomena, not blind guesses but ones based on some familiarity with the phenomena and with other theories that have been tried to explain them. Trials are then attempted to see if such bold conjectures can be refuted by empirical tests of deductions made from them together with initial premisses and assumptions from 'background knowledge'. That holds for even the most advanced science; everything is tentative, subject to critical revision in the light of tests and further experience. Far more does it hold for the comparatively primitive social sciences; they have a much less secure basis of tested knowledge in drawing blueprints for further social reform. It is important, therefore, to have critical examination and discussion of such blueprints before corresponding social reforms are put into operation, and at all stages to monitor results carefully. If the reform goes badly it should be appropriately adjusted, or even scrapped pending revision of relevant theories and the production of a better blueprint.

Both Hayek and Popper were struck by the similarity of their views after each had read the the other's book and cognate articles. But Popper was uneasy about Hayek's stress on markets which seemed to concede too much to *laissez-faire*, at least in what is now Chapter 10 of *The Counter-Revolution of Science*. He urged that, although most social institutions had evolved rather than resulted from deliberate creation, they are not sacrosanct and have to be regarded from a functional standpoint—reformed if they are proving to be unsatisfactory or inadequate. In particular, he doubted that mass unemployment was simply due to clumsy intervention of governments into economic affairs, and warned that failure to deal with this or other serious social problems could be dangerous to both democratic institutions and economic rationality. Hayek reassured him that there was no disagreement between them on theoretical issues.

Later, however, Hayek expressed some reservations, in *Law, Legislation and Liberty*, about Popper's piecemeal social engineering. 'Even it', he wrote, 'suggests to me too much a technological problem of reconstruction on the basis of the total knowledge of the physical facts, while the essential point about the practical improvement is an experimental attempt to improve the functioning of some part without a full comprehension of the structure of the whole.'²

When he wrote this, Hayek could not have fully remembered what Popper had said about piecemeal social engineering. A major reason for his advocacy of it was that social scientists,—including Austrian economists—were far from having an adequate understanding of their phenomena. That was underlined by his stress on open criticism and careful monitoring of any social reform,—of regarding it as an experiment which could give unexpected results that might well require modification of the reform.³ And, of course, a reform could seek to extend the scope for competitive markets by scrapping some controls or else to curtail that scope by introducing new controls.

For above all, Popper is a fallibilist who insists on our inevitable ignorance,—on a Socratic approach to all our problems. His fallibilist scepticism extends, not only to social reformers, but just as much to those who are so impressed by the undesigned system of competitive markets that they oppose any attempt to remedy its deficiencies. I refer particularly to those who follow Ludwig von Mises in asserting, on what must be *a priori* grounds, the infallibility of consumer sovereignty and the optimality of free markets. Murray Rothbart, for example, claims that Mises' praxeology 'can indeed demonstrate that laissez-faire will lead to harmony, prosperity and abundance, while government intervention leads to conflict and impoverishment.'⁴

Hayek long ago gave up this extreme view, if he ever held it. In *The Road to Serfdom*, he had recognized that competitive markets could not do everything that a society needed, and that there is 'a wide and unquestioned field for state activity' to 'create conditions in which competition will be as effective as possible, to supplement it where it cannot be made effective, and to provide services which, in the words of Adam Smith, "though they may be in the highest degree advantageous to a great society, are, however, of such a nature that the profit could never repay any individual or small number of individuals"'.⁵

In an address which he gave in 1956, Popper listed some of the social evils which he considered had been remedied or relieved by social cooperation.⁶ In addition to mass unemployment and poverty, he mentioned sickness and pain, penal cruelty, slavery or serfdom, religious or racial discrimination, lack of educational opportunities, rigid class differences and war.

³ *The Poverty of Historicis*, pp. 83–84.

⁴ *The Foundations of Modern Austrian Economics*, p. 105.

⁵ See *New Studies in Philosophy, Politics and Economics*, p. 111 and p. 69.

⁶ *Conjectures and Refutations*, Chapter 19.

² Op. cit, p. 157.

Hayek moved closer to Popper's position again when, in an IEA paper of 1973, he acknowledged a *growth* of collective wants which a government can and should satisfy, provided that these wants related to the whole community, that the government did not try to monopolize services to meet them but allowed opportunity for alternative provision by private enterprise, and that these services were financed by non-discriminatory means. Yet in his last book, *The Fatal Conceit*, Hayek seems to have moved closer again to Mises' position. Approval of 'piecemeal improvement' is much less explicit, and examples are limited to reforms which bear on copyright, contract and property. (p. 69) A difference also seems to emerge in regard to what Popper has condemned as moral historicism,—'the philosophy of the identity of facts and standards.' For Hayek argues that morals, 'standing between instinct and reason', are identical with the abstract rules of an extended order, and change as it evolves. (p. 12) Is there a disturbing similarity here to the Marxian view that morals depend upon economic evolution? If so, Hayek had taken up a position that is both inconsistent with his own liberalism and discouraging to social reform. Liberalism, Popper maintains, is based on a *dualism* of facts and standards, 'for an essential part of this tradition is the recognition of the injustice that does exist in this world, and the resolve to try to help its victims'⁷. If, moreover, gaps between facts and standards are allowed to become too great, democracy, and so liberalism itself, can be threatened; the Weimar Republic, after all, did elect Hitler to power during a period of severe unemployment.

Differences like this between Hayek and Popper could, I think, have been ironed out by conversation between these two old friends. I would have no such optimism in regard to those dogmatists who claim that Austrian economic science, as they have developed it, shows with apodictic certainty the folly of any interference with a completely free, and so quite unregulated, market system. They claim for this imaginary system virtues that no other conceivable economic arrangements could possibly match, and see attempts to regulate or restrict it as necessarily leading to dire consequences, both economic and political.

It is doubtful if such views should really be called 'Austrian'. The older Austrians would not have subscribed to them. Carl Menger, founder of the School, criticized economists, like Say, who had an erroneous view of the concepts 'theory' and 'system'

as they understood them to be 'nothing more than theorems obtained deductively from a *priori* maxims'.⁸ His successor, Wieser, according to Erich Streissler, 'was an interventionist liberal'⁹, and his successor, Mayer, 'insisted that Austrian theory was value-free, and was sceptical of Mises distortion of it'.¹⁰ Nor did all those who had attended Mises' seminar fully share his views about the folly of intervention in free markets. Fritz Machlup, for example, spoke of the error of identifying liberalism with *laissez-faire*, and held that 'the preservation of a maximum amount of freedom may call for government measures to maintain competition, which private contracts might restrict, to provide services which private enterprise cannot supply, and to prevent misery which private charity cannot cope with'.¹¹

There can be no sound basis for prejudging all possible reforms. Final truth has not been reached by any of the rival schools of economics,—nor will it ever be. Their theories, as Popper has shown, must always be subject to falsification or improvement in the light of experience. To show that collectivism is incompatible with liberty, and that it gives poor economic results, does not, by itself, establish a case for pure *laissez-faire*. We would still have to ask, as Menger and Popper insist, how far an existing situation could be improved or worsened by removing or introducing some kinds of intervention, and how far it might be further improved by better piecemeal social engineering.

And, as Popper stresses, improvement must involve reference to more than economic efficiency. It also involves considerations of such moral and intellectual values as individual freedom, democratic tradition, protection of the poor or suffering, advancement of knowledge and education, and promotion of some basic aesthetic values. Civilization, no doubt, depends very much upon Hayek's extended order of cooperation, but the two are hardly identical. If they were, we should have to deny that Gupta India or Sung China were civilized because their economies were highly regulated.

⁸ *Investigations into the Method of the Social Sciences*, p. 37n.

⁹ *Die Wiener Schule der Nationalökonomie*, 1986, p. 86.

¹⁰ Earlene Carver, 'The Emigration of Austrian Economists', *History of Political Economy*, 18.1, p. 10.

¹¹ *Roads to Freedom*, pp. 127–28.

⁷ *The Open Society*, Volume 2, p. 393.

APPENDIX THREE

ADVICE TO RUSSIAN READERS OF *THE OPEN SOCIETY*

In 1992 Karl Popper was preparing a Russian edition of *The Open Society*, and kindly allowed me to write about his English version of a message to his Russian readers. It declared that the main idea of *The Open Society* is *The Rule of Law*.

The West has become wealthy because of the development of free markets, and these have required both a Civil Law, which includes property and mercantile laws, and a Criminal Law, whose most important aspect is that no one can be punished before his guilt has been proved beyond reasonable doubt.

Criminal Law is a necessary evil. Civil Law, however, is a great good because it aims at personal freedom—at enabling people to live together without the use of violence. It has enabled free markets to develop with great benefits to living standards. They need a framework of law to provide for the making, and enforcement, of numerous contracts between independent producers, suppliers, customers and workers. The Civil Law of Western societies has thus had a parallel growth with that of free markets and the industries which use and serve them.

The Revolution of 1917 destroyed this legal tradition in Russia, together with free markets. It would take a very long time to re-establish it unless Russia now copies one of the West's systems of Civil Law, just as Japan did after the Meiji restoration by quickly adopting the German legal system. Popper suggests that Russia should choose either the French or the German codes; the British never developed a code of law that could be taken over *en bloc*, and in the United States there are different state codes which were themselves developed from British law.

Adoption of the French or German codes could not fit Russia anything like perfectly, so that its Parliament would have to make changes as the need appeared for them, just as Western states have had to continuously revise or up date their own established codes of law.

A much greater difficulty is to make real the Rule of Law. To achieve this the Russian State would have to educate its legal officers in the newly adopted code and persuade them to take it seriously, especially judges and other members of the courts

of law. In times of peace, no higher interest than that of the State should be allowed to prevail. This most difficult task is really that of establishing an Open Society—of bringing about a new, flexible and living tradition of the Rule of Law, as opposed to 'the rigid tradition of the Rule of Fear' that had characterized the Communist bureaucracy. It might be hastened and assisted if Russia were to follow Japan's old example of sending very good post-graduate law students abroad to study and gain experience of a Western system of Civil Law.

It is unthinkable that Russia can approach Western standards of living until it establishes a Rule of Law to serve a free market economy. Popper regards this insight as 'fundamental, and of the greatest urgency'. For a market economy is extremely complex, involving millions of 'peaceful, hard-working citizens', and can function properly only if they can trust one another, 'and as long as they know what honesty and decency and truth demand'. For that they need trust in the law, in the officers who enforce it, and in the judges who administer it.

Among the serious risks of privatising Russia's state industries, is that this process can involve serious corruption and swindling unless there are effective systems of Civil and Criminal Laws to hold them in check. Without them privatisation is unlikely to promote beneficial development of free markets and could well bring political dangers that would undermine attempts at economic reform.

BRILL'S STUDIES IN
EPISTEMOLOGY, PSYCHOLOGY
AND PSYCHIATRY

GENERAL EDITOR
M. A. NOTTURNO

EDITORIAL BOARD

ARTHUR C. DANTO, Columbia University, New York
STANLEY FISH, Duke University, Durham, N. C.
JOSEPH MARGOLIS, Temple University, Philadelphia
PAUL R. McHUGH, The Johns Hopkins University, Baltimore
Sir KARL R. POPPER, The University of London

VOLUME 3



POPPER'S VIEWS ON NATURAL
AND SOCIAL SCIENCE

BY

COLIN SIMKIN



EJ. BRILL
LEIDEN • NEW YORK • KÖLN
1993

BIBLIOGRAPHY

- Agassi, J. 'The Legacy of Lakatos'. *Philosophy of the Social Sciences*, 1979.
- , 'Tristram Shandy, Pierre Menard, and All That'. *Inquiry*, 1981.
- Anschutz, R.P. *The Philosophy of J.S. Mill*, 1953.
- Bartley, W.W. 'Critical Study of the Philosophy of Karl Popper', Parts I-III. *Philosophia*, 1976, 1978 and 1982.
- , *The Retreat to Commitment*, 1984.
- , 'Knowledge is a Product not Fully Known to its Producer'. *The Political Economy of Freedom: Essays in Honor of F.A. Hayek*, edited by K.R. Leube and A.H. Zlabinger, 1984.
- , 'Non Justificationism: Popper versus Wittgenstein'. *Proceedings of the 7th International Wittgenstein Symposium*, 1983.
- , 'On Imre Lakatos'. *Essays in Honour of Imre Lakatos*, edited by R.S. Cohen et al.
- Blaug, M. *Economic Theory in Retrospect*, 1978. Ch. 16.
- , *The methodology of economics*, 1980. Chs. 1-2.
- Caldwell, B. *Beyond Positivism*, 1984. Chs. 4, 5 and 12.
- , 'Clarifying Popper', *The Journal of Economic Literature*, March 1991.
- Eichner, Albert S. (editor). *Why Economics Is Not Yet A Science*, MacMillan, 1983.
- Feinberg, Gerald. *Solid Clues*, 1985. Heinemann, London.
- Gleick, James. *Chaos*, Cardinal, 1987.
- Grunbaum, A. 'Is Freudian Psychoanalytic Theory Pseudo-Scientific by Karl Popper's Criterion of Demarcation?' *American Philosophical Quarterly*, 1979.
- Hands, D.W. 'Blaug's Economic Methodology', *Philosophy of the Social Sciences*, 1984.
- , 'Karl Popper and Economic Methodology', *Economics and Philosophy*, 1985.
- Hayek, F.A. von. *The Road to Serfdom*, 1944.
- , *The Counter-Revolution of Science*, 1952.
- , *Studies in Philosophy, Politics and Economics*, 1967.
- , *New Studies in Philosophy, Politics and Economics*, 1978.
- , *The Fatal Conceit*, 1988.
- Healy, M.J.R. 'Is Statistics a Science?'. *Journal of the Royal Statistical Society*, 1978.
- Hicks, John. *Causality in Economics*, 1979.
- , *A Theory of Economic History*, 1969.
- , 'Is Economics a Science?'. *Interdisciplinary Science Review*, 1984.
- Hirsch, A. and de Marchi, N. 'Methodology: A Comment on Frazer and Boland'. *American Economic Review*, 1984.
- Hodgson, G. 'Behind methodological individualism'. *Cambridge Journal of Economics* 8, 1986.
- Hutchison, T.W. *The Politics and Philosophy of Economics*, 1981. Chs. 7 and 9.
- , *On Revolutions and Progress in Economic Knowledge*, 1978. Chs. 10 and 11.
- Latsis, S.J. 'Situational Determinism in Economics'. *British Journal for the Philosophy of Science*, 1972.
- Leach, J.J. 'The Dual Function of Rationality'. *Foundation Problems in the Social Sciences*, edited by R.E. Butts and J. Hintikka. 1977.
- Lessnoff, Michael 'The Political Philosophy of Karl Popper'. *British Journal of Political Science*, 1980.
- Levinson, Paul. (editor). *In Pursuit of Truth: Essays on the Philosophy of Karl Popper on the Occasion of His Eightieth Birthday*. 1982.
- Marchi, Neil de. (editor). *The Popperian Legacy in Economics*, 1988.
- Medawar, Peter. *Memoirs of a Thinking Radis*.
- , *Pluto's Republic*.
- Musgrave, A. E. 'Falsification and its Critics'. *Proceedings of the Fourth International Congress for Logic, Methodology and Philosophy of Science*, 1971.
- Notturmo, M.A. 'The Popper/Kuhn debate: truth and two faces of relativism'. *Psychological Medicine*, 1984.
- Petersen, A. F. 'The Role of Problems and Problem Solving in Popper's Early Work on Psychology'. *Philosophy of the Social Sciences*, 1984.
- Popper, Karl R.
1945. *The Open Society and Its Enemies*. Routledge and Kegan Paul.
1957. *The Poverty of Historicism*. Routledge and Kegan Paul.
1959. *The Logic of Scientific Discovery*. Hutchinson.
1963. *Conjectures and Refutations*. Routledge and Kegan Paul.
1966. *The Open Society and Its Enemies* (fifth edition). Routledge.
1967. The Rationality Principle. Chapter 29 of *A Pocket Popper*, edited by David Miller. (1983).
1972. *Objective Knowledge*. Oxford University Press.
1974. *The Philosophy of Karl Popper* (edited by P.A. Schilpp). Open Court.
1976. *Unended Quest*. Fontana Paperbacks.
1977. *The Self and Its Brain* (with Sir John Eccles). Springer.
- 1982a. *The Open Universe*. Hutchinson.
- 1982b. *Quantum Theory and the Schism in Physics*. Hutchinson
1983. *Realism and the Aim of Science*. Hutchinson.
1984. With Miller, D.W. 'A proof of the impossibility of inductive support.' *Nature* pp. 687ff.
- 1987a. With Miller D.W. 'Why Probabilistic Support is not Inductive'. *Philosophical Transactions of the Royal Society* pp. 44 ff.
- 1988a. 'Changing Our View of Causality: A World of Propensities'. Unpublished paper.
- 1988b. 'A World of Propensities: Two New Views of Causality.' Unpublished paper.
1990. *A World of Propensities*, Thoemass Antiquarian Books, Bristol.
- Radnitzky, G and Bartley, W.W. (eds). *Evolutionary Epistemology, Theory of Rationality and the Sociology of Knowledge*, 1987.
- Schilpp, P.A. (editor). *The Philosophy of Karl Popper*, 1974.
- Simon, H.A. 'From Substantive to Procedural Rationality'. *Philosophy and Economic Theory*, edited by F. Hahn and M. Hollis, 1979.
- Streissler, Erich. (editor). *Roads to Freedom*, 1969.
- , *Die Wiener Schule der Nationalökonomie*, 1986.