

soning and behavior which have hampered the advance of human understanding at a rate that would otherwise have been reasonably attainable.

The group, accordingly, views its task not as that of a laggard fire brigade, but as that of a scholarly agency for the study of how to reduce fire hazards so as to fireproof the world. In its preliminary search, it has already uncovered some piles of inflammable matter in human thinking and behavior, accumulated by the dead hand of the past, the removal of which by incisive reason could safely forestall some of the impending conflagrations. This calls for great foresight and deliberate planning, somewhat in the spirit of Gaston Berger, the practical wisdom of whose "Prospectivité" another member of the group has impressively set forth. And all such forward glances into the future seem to converge upon the realization that to insure progress to sanity will exact a thorough, sober and resourceful rethinking and rehabilitation of the moral, ethical, and intellectual foundations upon which our civilization rests. To this effort, the Frensham Group aims to contribute its modest share, steadily, methodically, and without fear or favor. Now, listen to what some of them have to say.

Why Did We Destroy Europe? *

MICHAEL POLÁNYI**

My remembrance of these September days 60 years ago, when I entered the University of Budapest, shows me an almost forgotten past of peace, of bold intellectual and artistic enterprise and of continuous progress towards liberal ideals. And then, after a mere six years of this life full of confidence in the future, I see years of destruction and fear, extending up to this day through the major parts of Europe, of the Europe ranging in my time from the Atlantic to the Urals.

And I would suggest to you that we are not likely to understand our present predicament unless we can clear up what caused the disasters which have ravaged Europe in the twentieth century. For these causes are still with us today.

J. C. Eccles has spoken of the danger arising through the modern scientific outlook which has destroyed the philosophies in which man's spiritual existence was grounded.¹

I agree with this view, but we cannot expect to convince a public brought up to put all its hopes on the present scientific outlook, unless we can prove that the disasters of this century were caused by the errors of this scientific outlook. And we can hardly hope to discover and spread widely a truer world view, unless we can effectively demonstrate that this truer world view will restore the kind of sanity which will stop the progress of disintegration in our times.

But the very first steps of such an enquiry lead up to a baffling result. It faces us with the fact that the great period of progress which preceded our disasters was inspired in its many achievements by the very outlook of science which we suspect to have caused our eventual destruction.

The nineteenth century was inspired in countless creative directions by the hope of unlimited progress, based on the scientific outlook. This hope was the inheritance of eighteenth-century Enlightenment, proclaimed by Condorcet at the close of that great century. And this hope was fulfilled. By battling against established authority, scientific scepticism did clear the way for political freedom and humanitarian reforms. Throughout the nineteenth century, scientific

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¹ The content of his address can be found in the immediately following article and in the forthcoming book: John C. Eccles: *Facing Reality*. Chapter 11 "Education and the World of Objective Knowledge". Heidelberg Science Library, Vol. 13. Berlin-Heidelberg-New York: Springer 1970.

rationalism inspired social and moral changes that have improved almost every human relationship – both private and public – throughout Western civilisation. Indeed, ever since the French Revolution and even up to our own days, scientific rationalism has been a major influence towards intellectual, moral and social progress. The damage done by the scientific outlook to religious beliefs fostered the humanitarian idealism of the age, for it transformed the hopes of salvation into an unprecedented fervor for social reforms.

This seems to query the view that the predicament of modern man is due to the destructive message of the scientific outlook. We seem forced to assume that about 50 years ago the scientific outlook changed altogether and took on pathological forms, new forms which virtually destroyed all the benefits that its ideas had previously brought to us – and at points caused us to descend to levels of evil hardly reached before in the history of mankind.

The supposition sounds strange, yet I think it is precisely this kind of pathological transformation of the scientific outlook which has brought about the destruction of Europe and which continues to menace us today with further extensions of this disaster.

But there are alternative explanations to be considered first. The destruction brought about by the first World War undoubtedly played a part in the degeneration of Europe in the twentieth century. About ten million Europeans were killed in battle between 1914 and 1918. But I do not think that this directly brought about the cultural destruction that was to follow. Losses in battle were twice as much in the second World War and yet its effects were on the whole rather favourable to the recovery of Europe, particularly in Germany and Italy. The peculiar effect of first World War consisted rather in shaking our confidence in the inevitable progress of humanity, as guided by modern enlightened reason. This loss of confidence released the destructive potentialities of the scientific outlook which had already been developing for some time in Europe.

But before analysing these mental antecedents, which I believe to have been decisive, there are yet other explanations of the European disasters to consider. The chain of our revolutions started in Russia in 1917 and in the popular mind this event is regarded as the overthrow of Czarism with its notorious tyranny. But the Czar was overthrown well before Lenin returned to Russia. And another six months passed before the Communists took power, and then they did so by violently suppressing all the parties which for many years had fought the Czarist system and had in fact overthrown it. Moreover, when the cruel tyranny of the Czars evoked indignation throughout Europe, including Russia itself, this was fully justified by the standards of the nineteenth century. But some of the pictures showing social revolutionaries as prisoners in Siberia, published in England to arouse indignation against the Czar, look by twentieth century standards like documents of unbelievable lenience and freedom under the Czars. A number of famous women revolutionaries, most of whom had the

assassination of a high government official to her credit, can be seen having themselves photographed in prison as sitting in white blouses under two streamers displaying revolutionary slogans.² Whatever the justification of the Russian Revolution, it cannot be granted it for the abolition of a cruel tyranny.

The ridiculous idea that this was the best way of industrialising Russia, deserves but a passing mention, along with Mr. Geoffrey Gorer's hypothesis explaining the typical behaviour of Russians under Stalin "in the main" by the habit of wrapping babies tightly.

Again, we are often told in England and America that the destruction of liberal standards in central Europe did not involve a deep change, since there had been no democratic tradition in those parts. We are told that the Germans had an "Authoritarian Personality" and a "Fear of Freedom". I don't know what exactly these words mean, but I am sure that they cannot apply to Friedrich Nietzsche whose influence on Germans since the end of the nineteenth century has been paramount. Indeed, right through the nineteenth century, German individualism sharply contrasted with British and American conformism. And we shall see in a moment that it was precisely this individualism, embodied in the "armed bohemian" which provided recruits for totalitarian revolutions on the Continent of Europe.

I shall spare you the refutation of further absurd explanations of the European disaster. The marching orders of my argument are set by my acceptance of the thesis that the modern scientific outlook – after having been the inspiration of humane progress in the nineteenth century, has become a danger to the spiritual conception of man and that this transformation has brought about the destruction of liberal societies over wide ranges of Europe. If we can demonstrate this sequence of events, any explanations referring only to parts of it will fall away automatically.

Let me define more closely what I mean by the *destruction of Europe*. The First World War claimed over ten million killed in battle, which figure includes a million killed in the Russian civil war. The Second World War killed twenty million men in battle, including four million civilians killed during the war in Germany, Poland and Russia. In addition, Germany has murdered about five million Jews and the deaths caused by the Soviets by the 1923 famine, by the collectivisation of peasants in 1932 and by other deportations and executions are estimated at 10 to 15 million. Thus the total of violent deaths

2 The photograph is to be found in Jaakoff Prelooker: *Heroes and Heroines of Russia*. p. 304-305. London: Simpkin, Marshall, Hamilton, Kent 1908. – There is a title to it as follows: "Girl Revolutionists in the Akatui Prison Siberia". Below the photograph there is the following explanatory caption: "From left to right: K. Fialka, A. Izmailovitch, M. Spiridonova, A. Bitzenko, A. Ezersky, M. Shkolnik. Inscription on Banner in the back-ground: 'Glory to the martyred, Freedom to the living.' From a photo taken in the prison." There is a list of the acts for which these revolutionaries were sent to prison in Siberia, and this list shows that five out of these had each killed one high government official.

during the years since 1914 may be assessed at forty-five to fifty millions, which leaves out the killings in the Spanish Civil War and other items I will not enumerate. We can speak of roundly 50 million killed.³

The death toll is high, but does not approach (in proportion) that of the Thirty Years' War, or of the Black Death in the fourteenth century; it impoverished Europe, but did not devastate it. It was the madness and the evil of the killing which was the destruction of Europe. The depth of this evil was reached in the intellectually decided and technically organised murder of five million Jews and in Stalin's insane purges. The destruction of Europe consisted in the corruption of the minds which made them do this evil. It lay in the enslavement which enforced this corruption by whole systems of madness, stupidity and lies. This is what I mean by the destruction of Europe.

The destruction of Europe is marked by the difference persisting to this day between what the centres of European thought and art were in 1914 and what the same places are today. Compare the Munich of 1914 with that town today, or today's Berlin, or its Göttingen, or its Leipzig, or its Prague, or its Vienna, or its Moscow, or its Budapest are, compared with what they were in 1914. Think of the fact that the genius of Russia which during the half century before the revolution produced a literature that included the greatest writers of Europe, has produced in the half century after this hardly any major literary work. This is where our Europe has been reduced to a mere fraction of its previous mental existence. Add to this the present division of Europe which before 1914 was one single freely responding area of art and thought and add the brutality and intellectual bigotry of its still enslaved parts, and add also the enfeeblement of the comparatively undamaged countries, such as France and England, owing to the destruction of Central and Eastern Europe, and you have before you the destruction of Europe, as I see it.

I have said that the destructive potentialities of the scientific outlook have been maturing in Europe well before their outburst was evoked by the First World War which shattered our belief in liberal progress. This disappointment did not happen over night. I can relive how the possibility first dawned upon us that the great hopes intrinsic to our every thought might fail us: that we may actually be witnessing the destruction of Europe. I remember how this hitherto unconceivable thought gradually took possession of our minds, and finally faced us as a fact. This was the moment when the eclipse of the liberal ideas of the nineteenth century began.

Yet there had been prophets who attacked these ideas. Three great names come to mind; the names of Dostojevski, of Nietzsche and of Marx. They aimed in three different directions, but they all started from the same point. Dostojevski

³ The figures for men killed in the two world wars and the data on the spreading of Fascism following the rise of Mussolini are based on Martin Gilbert *Recent History Atlas*. London: Weidenfeld and Nicholson 1967.

warned that science must destroy the conception of moral responsibility. If there is no God, everything is permitted. And man, reduced to the level of a machine, will rather go mad than accept this condition. If there is no God says Kiriloff in the Brothers Karamasov, then man is compelled to demonstrate his independent will, and Kiriloff demonstrates this sovereign will, by committing suicide. Nietzsche, twenty-two years younger than Dostojevski, came across one of Dostojevski's writings only after he had completed most of his own work, but he immediately recognised Dostojevski as his forerunner. Indeed, like Dostojevski, Nietzsche had declared that the critical powers of man, sharpened by science, unmask all morality as mere conventions. Man in his fullness must contemptuously brush aside any such restrictions of his sovereign choices. Let the ignoble masses bow to standards imposed upon them; superior man set free from such servitude must make his own laws, create his own person.

Thus Nietzsche's argument is a variant of Dostojevski's. They both say that modern scepticism destroys the grounds of all accepted values and obliges man to assume total self determination. Dostojevski sees the outcome of this in madness and suicide, while Nietzsche sees emerging from it a superior man, who, respecting no laws, is ready for violence beyond good and evil. Nietzsche spoke in paradoxes and parables, leaving always open the possibility that his words may be merely metaphorical. But the teachings he had left open vaguely, the twentieth century acted out clearly in their most cruel meaning.

But before following up these Nietzschean doctrines, I must turn to the third of the prophets who undermined in his own way the partnership between scientific scepticism and liberal progress, the combination which had guided the nineteenth century to its achievements. Marx saw history as determined by the necessity of class wars which bring consecutive improvements in modes of production. The technical necessity of replacing capitalism, which had become unworkable, by the productive forces of socialism, would inevitably lead to the overthrow of Capitalism and the establishment of Socialism in its place. Since the moral principles of each period were determined by the interests of the ruling class there was no point in appealing for reforms to the feelings of justice and brotherhood, or the ideals of freedom. Nor was there any sense in respecting moral principles in carrying out the revolution that was historically necessary.

Engels was to describe this doctrine as transforming Socialism from a utopia into a science. But what it actually did, was to dress up a utopia as a science and thus render it unquestionable by an age to which science was the ultimate truth. But Marx did more than that. By endowing a machinery of history with the power to bring social salvation, he imbued its mechanism with all the passions of utopia. Hatred of capitalism, of its icy cash-nexus and of the wicked exploitation of the workers, and, correspondingly, the hopes of socialist brotherhood, were injected with all their fervour into the Marxist mechanism and made these passions serve this mechanism as its fuel. Marxism provided

our scientific age with an ideology which made its boundless moral demands on society covertly and thus protected these moral demands from the knife of modern scepticism. Marxist man thus formed a combination of scepticism and fanaticism which no age had known before.

I have characterised already some years ago the condition when moral perfectionism is protected against scepticism by being embodied in a mechanical process, and I have given this structure the name of 'moral inversion'. In a way moral inversion goes back to eighteenth-century utilitarianism. Bentham derided the social ideals of the French Revolution and claimed instead the greatest happiness of the greatest number as the only scientifically acceptable conception of social value. But since this principle was used by Bentham and his followers only to counteract unreasonable rigidity obstructing desirable reforms, he never came to realise that his teachings could justify the evils of a totalitarian regime. The alliance between scientific scepticism and liberal progress still held, because scepticism had not gained the degree of its modern incisiveness.

But turning once more to the twentieth century, we see moral inversion developed into totalitarianism. Totalitarian principles were proclaimed from the start by the Russian Revolution in 1917 and 1918. Lenin unhesitatingly outlawed in January 1918 the Social Revolutionaries forming the majority of the Constitutional Assembly which he had himself convened. By 1923 the canvassing of personal views was suppressed even within the Party. And soon the government wove through all domains a web of absurd falsehoods, often based on confessions extorted by torture. This was sanctioned as 'party-truth' the extension of which to all manner of arts subjected these too to the party line.

Totalitarianism was introduced into history by Marxism and its Fascist variety arose in 1921 at the hand of Mussolini following his victory over an Italian communist insurgence. In the fifteen years to follow, eleven other European countries fell under similar right wing dictatorships. Germany was one of the late comers; National Socialism came to power in 1933 as the sixth fascist regime established in the example of Italy. By 1939 the countries enjoying civic liberties in Europe had fallen to 14, equal to the number of dictatorships. Totalitarianism had become endemic in Europe.

By the time the Second World War broke out, the liberal heritage of the nineteenth century seemed doomed to extinction.

The right wing dictatorships justified their rule largely by an anti-communism echoing Soviet practices; only Mussolini and Hitler were more articulate. Much of their vocabulary was borrowed from Nietzsche's talk of the superman. But the doctrine that violence was the true principle of government had deeper roots. Sorel's *De La Violence* played its part. Germans had declared already in the first World War that Realpolitik alone was the true guide of international policies. They expressed contempt for the moral principles invoked by the Allied

powers and denounced their moral claims as hypocritical. Writing in the years immediately following the First World War, Meinecke showed that the German identification of Right with Might in the actions of nations was the ultimate outcome of the Hegelian teaching of immanent reason. The strength of such immanent morality, would be testified by the violence of manifest immorality.

Immanent reason as well as the immanent morality claimed by Hegel for World Historical Personalities correspond closely to the conception of moral inversion that I derived from the Marxian theory of revolution. Marxism transposed Hegel's immanentism into a historic creed which claims the authority of science.

I have said that it was our modern perverted individualism, embodied in the "armed bohemians" which provided many of the recruits for totalitarian revolutions. Let me describe these bohemians before they took arms in politics. Just as the First World War released the destructive powers of Marxian scientism, so it also released the Nietzschean ideal of absolute self determination, liberated from all moral standards of society. Take as an example the surrealist mentality in the years following the war. Its leader André Breton said: "We were possessed by a will to total subversion." Robert S. Short has recently wrote of Breton's followers, "They extolled all forms of anti-social behaviour, crime, drug-addiction, suicide, insanity, as so many expressions of human freedom and revolt. They preferred the criminal to the political militant, since crime seemed to be a self-sufficient act . . . They called for crime on an international scale: a second reign of terror or a wave of barbarian invasion from the East".⁴ Today, 40 years later, you find moral protest expressed by young people in similar demonstrations of nihilism. And, conversely, you could trace such principles of total subversion back to the Russian nihilists of a century ago. They based themselves on popular scientific writers describing man as a machine: on the same popular scientific writers, to whom Dostojevski refers in his *Notes from Underground* (1864) where he stated for the first time his aim to rescue man from the destruction of human responsibility by the mechanical outlook of science.

The surrealist mentality I have described before characterises the period of 1920 to 1925. It gives you a good example of a privately practised moral inversion, in other words, a fierce moral protest made in terms of a fantastic immorality. Soon after that the followers of Breton joined the Communist party. The bohemian took arms and converted his immanent moral passion into the fuel of a ruthless political machinery of subversion. You can see this happening today, as it has happened for a hundred years before, in the oscillation of youth between personal immoralism and its transposition into politics of violence.

⁴ For my quotation of Robert S. Short on surrealism, I must rely on imperfect notes telling only that this text was published about 1968 by *Survey* in London.

I think this story resolves the paradox arising from John Eccles' account of the destructive ideas disseminated by science today. It shows that during the whole period before the great wars, while science led on to moral and social progress throughout Europe, the contradiction between science and human responsibility remained latent, though powerfully expressed by our prophets. And that this contradiction became effective after the world wars had caused a profound disappointment in liberal progress, so that the teachings of Marx and Nietzsche, based on this contradiction, became predominant. A moral perfectionism cast into private immoralism or totalitarian tyranny swept over Europe.

I think this is the situation we are facing today, a situation that is likely to get worse unless we can radically change and re-establish the grounds of human knowledge and thus make sense once more of man's life and of the kind of universe which is our home.

Some Implications of the Scientiae for the Future of Mankind*

JOHN C. ECCLES**

The present predicament of mankind arises because the great progress of science has necessarily resulted in the destruction of so much of the philosophy whereby man has lived, and there has been no development of a philosophy that is fully consonant with this science in all of its implications for man as a self-reflecting being. My efforts to be of service to mankind in this predicament will be directed largely to an attempt to re-examine some of the basic philosophical principles that have been developed by man in his efforts to give a rational and coherent account of his origin, of his nature and of the meaning and purpose of life.

I shall begin by following Eugene Wigner (1964) in his subdivision of reality into the primary reality which includes all of our conscious experiences and the secondary reality which is derived therefrom in the attempt to give an account of how these experiences arise. This secondary reality is the material world in all its manifestations and includes even our own bodies and brains. The attempt by the experiencing self to give an account of the totality of perceptual experience has in the course of time become refined into the scientific effort to develop ultimate and coherent explanations of the natural world as revealed under the highly artificial conditions of scientific experimentation. It is then assumed that these explanatory principles account for all the diverse and complex phenomena that provide the raw material of our perceptions in all their variety.

In this attempt the experiencing self has been left out of the totality of the experiences to be explained. As Schrödinger (1958) has said, "the subject of cognizance" withdraws from the domain of nature and assumes the role of an observer of an objective world. We take the self as axiomatic — as indeed we must — and this must apply both to its perceptive side, where it receives from the world of matter and energy, and on the conative side in which it operates upon this material world. To summarize this position, it can be said that in relationship to the dualistic concept of reality — primary and secondary — the scientific effort has been concentrated on the attempt to understand the secondary reality of the natural world.

* Revised version of the paper read at the meeting of the Frensham Group (initiated and sponsored by Oscar van Leer; cf. Foreword by Paul A. Weiss, p. 905). Compare also the foregoing article by M. Polanyi, footnote 1.

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