An Historian Reconsiders the Idea of Progress

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The idea of progress, the notion that man can steadily improve his lot here on earth, is one of those unique features which arise occasionally at a certain time and in a certain period. This particular idea is unique to Western Civilization, appearing towards the end of the seventeenth century. It is not an idea that has been universal or that man has supported in general. The classical Greeks and Romans mostly thought that history moved through cycles. Man might advance for a time, but then the wheel would turn and he would eventually revert to a lower level. If there was a golden age, it was in the distant past, a mythical egalitarian state of nature in which men shared goods, lived harmoniously together, and enjoyed peace and good will. But that was a bygone age, something in the distant misty past, gone and irretrievable. Thus for the Greeks and the Romans time was an enemy.[1]

The Judaic-Christian tradition paved the way for a different view of history and helped to lay the foundation for what we call the notion of progress. For the Jews, and later for the Christians, there was a progressive revelation of divine purpose. History was thus seen as linear rather than cyclical. It moved in a line rather than round about like a wheel. Also Christian historians accustomed western man to think of history as moving upward in stages. We have the stages of revelation, for instance, in the Christian religion, of the Old Testament, the New Testament, and then the history of the Church, in short what we would call

[1]As Ludwig Edelstein points out in *The Idea of Progress in Classical Antiquity*, Baltimore, 1967, some classical thinkers did have some notion of progress, but the idea was not widespread and never became an historical force.

periodization of history in modern terminology. Moreover Jews and Christians thought optimistically about the future. The Jews dreamt of the second coming of the Messiah. So too did many early Christians and a whole succession of radical leaders during the Middle Ages. There would be the second coming of the Messiah according to the Christians, and then the felicities of heaven and the next life, at least for the blessed. Finally their message of hope was for all mankind. It was ecumenical in its scope, a world-wide vision. But this was not the notion of progress for at least two reasons. It was God who controlled the upward stages of the revelation and the ongoing of mankind, and so long as there was divine control there was providence not progress. And the goal was not that of terrestial happiness. The goal was not that of advancing steadily, economically and ethically towards a better future on earth. Happiness would be in the after-life not in earthly bliss.

The notion of progress, with the way paved to some extent by these Christian assumptions, appeared in the eighteenth century in Europe, that is in a certain time and place, for a variety of reasons.[2] First of all Europe had been growing increasingly secular, or if you prefer worldly, from the later Middle Ages onwards. Through the Renaissance, on into the seventeenth century, and finally into the eighteenth century men increasingly looked to this life for their satisfactions and their fulfillments. That is not to say that other-worldiness had died out completely. But by the eighteenth century le bonheur of mankind had become one of the essential goals. Then as far as the providential control of history was concerned, there were some intellectuals who towards the end of the seventeenth, and especially in the early eighteenth century, cut the cosmic apron strings. They defied divine control and declared that man was capable of shaping his own destiny. And this revolt of certain intellectuals against traditional religion, this pushing God aside, this removing him from immediate control over daily life, set the stage for the notion of a progressive movement in history. Then too there was sense that man was actually progressing in the sixteenth, seventeenth, and eighteenth centuries. Literacy was spreading, books were pouring out after the invention of the printing press, man was discovering what the world was like, and life was becoming more civilized and pleasant. That is one of the reasons why men's values were becoming more secular.

[2]On the rise and spread of the idea of progress see J.B. Bury, *The Idea of Progress*, New York, 1932; C. Frankel, *The Faith of Reason: the Idea of Progress in the French Enlightenment*, New York, 1948; S. Pollard, *The Idea of Progress: History and Society*, London, 1968; R.V. Sampson, *Progress in the Age of Reason: the Seventeenth Century to the Present Day*, London, 1956; E.L. Tuveson, *Millennium and Utopia: a Study in the Background of the Idea of Progress*, Berkeley, 1949; and C. Van Doren, *The Idea of Progress*, New York, 1967; and W.W. Wager (ed.), *The Idea of Progress Since the Renaissance*, New York, 1969.

Then there was the dramatic example of the scientific discoveries made between the sixteenth and the end of the seventeenth century, discoveries which Europeans were very proud of, very conscious of, and as Alexander Pope wrote:

> *Nature and Nature's laws lay hid in night;*
> *God said, 'Let Newton be!' and all was light.*

These advances in science also strengthened the credibility of what you might call the Baconian vision of mastery over nature. You remember that in a novel called *The New Atlantis* Bacon showed a team of scientists at work solving various human problems and improving life on earth through the work that they did in their laboratories. Bacon aroused the hope that man could control his world for his own purposes and put it to his own use. It is very important to note that these scientific achievements not only gave rise to the possibility of the mastery of nature, but encouraged a belief that the right method could solve human problems as well. By the later seventeenth century and the eighteenth century there was a strong belief that if man would only apply the right method, not religious speculation, not metaphysical cogitation, but a scientific, empirical, moderate, rational approach, he could solve many social problems. By applying the right method men could become the Galileos and Newtons of society, establishing in the social sphere the same kind of harmony and regularity that they had discovered in the natural or physical world. This hope of improving man himself is one of the key features of the idea of progress.

Hope of improving man as a social animal was also encouraged by Lockean epistemology. Locke, you will recall, taught that the child was born with no propensity towards either good or evil. He was born with a blank slate on which you could put whatever you desired. The human mind was therefore malleable, subject to the influences that were brought upon it by the environment. It seemed to follow that if you exposed the child to the proper kind of education, if you manipulated his surroundings in the right way, you could in effect create a new kind of man. Man could regenerate himself without divine assistance. The educator could play the role of God.

Now just to cite a few examples of evidence of the belief in progress during the eighteenth century. Since I have only limited space I do not have the chance to qualify my remarks by discussing some of the pessimists who still persisted, the people who still took a gloomy view of human history. There is a book on this whole subject of the pessimism of the eighteenth century.[3] But the fact is that certain intellectuals did support the idea of progress, the notion that man could steadily improve

[3] H. Vyverberg, *Historical Pessimism in the French Enlightenment*, Cambridge, Mass., 1958.

his position economically, technically, and morally here on earth. Let me cite the article 'Encyclopédie' which appeared in the *Encyclopédie, ou Dictionnaire des Arts et Sciences*, that immense work which took from 1751 to 1765 to produce all seventeen folio volumes, not to mention the supplementary volumes and indexes which appeared later. It was edited by Denis Diderot and it is often looked upon as the great representative work of the eighteenth century. Now the editor wrote this about the purpose of his publication:

> *... indeed the aim of an encyclopedia is to bring together knowledge scattered over the face of the earth, to delineate its general structure to the men among whom we live, and to transmit it to those who will come after us, in order that the works of past centuries will not have been useless for the ages which will follow, that our descendants, becoming better instructed, will become at the same time more virtuous and happier.*[4]

There in a nutshell is what you might call the John 3:16, the Gospel, of the Enlightenment of the eighteenth century, the belief that by becoming better informed men would become at the same time more virtuous and happier.

Appended to the seventeen volumes of this great encyclopedia were eleven volumes of very interesting plates which you should look at some time. We have a set in the Rare Book Room of the Douglas Library. Those eleven supplementary volumes, consisting mostly of wonderful engravings of all the industrial techniques, manufacturing processes, and scientific methods of the century, constitute a veritable gold mine of visual information about the state of technology at the time. Moreover the existence of these volumes reveals a strong faith in science and technology which was part of the belief that inspired the life-long work of Denis Diderot.

To cite another progressive intellectual, in a work entitled *La Morale universelle* the atheist Baron Holbach argued that if all the available media of communication--books, plays, songs, paintings and every other means for conveying ideas which existed in the eighteenth century, were mobilized to spread the rational, empirical, moderate, critical method of thought which he believed in, then you could create among the masses a new secular morality divorced from the fanatical antiquated religion of former times. You could produce an enlightened society.

Another significant sign of the belief in progress was the transference of utopian novels to the actual world of the future--remember the word 'utopia' originally meant 'nowhere'. In the past utopian novels had

[4] 'Encyclopédie' in *Encyclopédie, ou Dictionnaire Raisonné des Sciences, des Arts et des Métiers* ... mis en ordre par M. Diderot et par M. D'Alembert, Vols. I-VII, Paris, 1751-7; Vols. VIII-XVII 'Neuchatel', 1765. Quotation, Vol. V, p. 635.

usually been set in mythical locations, places that did not exist, far-off islands in the Pacific or non-existent lands which no one had visited before. The transference of utopia from an imaginary region to a real place in the future is a significant sign of the growth of the idea of progress, and we have such a book appearing in 1770. It is Louis-Sébastien Mercier's novel, bearing the curious title *L'An 2440*, with the subtitle 'A Dream If There Ever Was One'. In the story a fellow goes to sleep in eighteenth-century Paris and wakes up in the future to find that the city has been transformed, that society has progressed, that the citizens are enlightened and live harmoniously, that they are prosperous and dedicated to social welfare, that they are ruled over by an enlightened monarch, and above all that there is peace among mankind and even the coloured people enjoy equality.

And then we have perhaps the best and most dramatic example of belief in progress, a book by Condorcet, written while hiding during the Terror. Condorcet, you will recall, was one of the great mathematicians of the eighteenth century, as well as a man who wrote about education and a number of other things. When the French Revolution broke out he became deeply involved in politics. And as the Revolution moved into its peak he was one of the moderate republicans in the Convention. Unfortunately in a letter to his constituents he attacked a constitution for the republic that was drawn up by a more radical group than that to which he belonged, and consequently he had to flee the Convention and go into hiding in the city of Paris, an action which outlawed him. He was living under the shadow of the guillotine, yet in those conditions he wrote one of the most remarkable books that has been produced in western civilization, a volume entitled *A Sketch for an Historical Picture of the Progress of the Human Mind*. Now there are a lot of errors in it because he wrote it without any reference books or anything of that kind while in hiding in central Paris, but it remains an impressive work. Eventually he was captured, and we are not sure whether he committed suicide rather than be executed, or whether he died as a result of exposure while in flight. This mathematician, in these remarkable circumstances, saw history moving progressively forward in ten stages culminating in a world-wide prosperous civilization. It was an ecumenical vision of the progress of mankind. I wish I had space in which to tell you in detail how he envisaged the tenth and final stage of history was like, a stage which he thought was already opening. It is a period when men not only are prosperous, not only enjoy the bounties of the earth, but live together in social equality. Women enjoy equality as well as men and, even more remarkable, the nations of the world live together in equal-

ity and harmony. There are no longer colonial empires, no longer exploitation of the black and the yellow people by Europeans. We behold a society where equality reigns between citizens, between sexes, and between races. And in this new world there is a constant application of a method, a way of thinking so precise, so mathematical and so infallible, that the human mind is really almost incapable of error.[5] He was a man who would have been very happy in the computer age. This is a remarkable vision to come from a man who was hiding from the guillotine, who was under the shadow of death. It is the secular equivalent of St. Paul's vision in the Book of Revelation.

Although the early nineteenth century was marked by periodic revolutions and there were several fairly serious wars in the century, many Europeans continued to have faith in progress. For example in the mid-century an Englishman, Patrick Dove, who believed that politics could be turned into an exact science, wrote a book with the revealing title *The Theory of Human Progression, and Natural Probability of a Reign of Justice.* In *Das Kapital*, which appeared in 1867, and his other writings, Marx expounded a variant of the notion of progress, arguing that through a series of class struggles man was moving toward the final revolution, in which the proletariat would establish a temporary dictatorship, leading eventually to a stateless communist society in which man's full creative potential would be released. Aesthetics would supersede economics. Two years later, in the article 'Progress' the *Grand Larousse du XIX^e Siècle*, the great French encyclopedic dictionary, noted that virtually all intelligent men now accepted the idea.

Then in 1888 the American Edward Bellamy produced his very widely-read utopian romance *Looking Backward* in which the hero falls asleep in contemporary Boston only to awake in the year 2000 to discover that private entrepreneurship has been replaced by state enterprise, that all work is done for public benefit rather than private gain, and that men live together harmoniously in a communal society. In the midst of the First World War, which one might have expected to produce less optimism, an English historian edited a collection of essays entitled *Progress and History* which described advances in prehistoric times, in Hellenic civilization, in the Middle Ages, in religion, in morality, in government, in industry, in art, in science, and philosophy. The last essayist, James Smith, argued that the undeniable reality of progress ought to inspire an ideal of action. '...we have analysed what is involved in the conception of Progress, shown when it become prominent in the consciousness of mankind and how far the idea has been realized--that it has become fact--in the different departments of life'.[6]

[5] A.-N. de Condorcet, *Sketch for a Historical Picture of the Progress of the Human Mind*, first published in 1795; trans. by J. Barraclough, London, 1955. On tenth epoch see pp. 173-202, esp. his discussion of method and language pp. 197-199.

[6] J.A. Smith, 'Progress as an Ideal of Action' in F.S. Marvin (ed.), *Progress and History*, Oxford, 1917, pp. 295-314, Quotation p. 295.

Now what has happened to this belief in progress? Belief in progress still remains the faith of much mankind. Marxists, for instance, still believe that history is inevitably moving upward according to the laws of dialectical materialism, and that eventually mankind in general will enjoy a classless society, a genuinely communist society. And those who uphold the idea of progress are by no means confined to the Communist or Marxist world. Our politicians constantly claim to work for it, to increase the gross national product, and make life better in some way. They usually have some catch phrase for this, the 'New Deal', the 'Fair Deal', or the 'Just Society', whatever slogan they develop at the moment. But the idea of progress seems to have lost much of its credibility among intellectuals. For instance our utopian novels now present a gloomy view of the future--Aldous Huxley's *Brave New World*, George Orwell's *1984*, and, although he might not admit that it is particularly pessimistic, Skinner's *Walden Two* where everybody is manipulated like an automaton.

Or take our historians. The twentieth century has produced Spengler, who wrote the *Decline of the West*, the title of which speaks for itself, and Arnold Toynbee, who in his great study of civilization has reverted to a kind of cyclical view of history. I may have lost count, but I think he has studied some twenty-seven civilizations which rose up, enjoyed prosperity for a time, and then declined. An historian who has seen that kind of up-and-down movement of human history is not likely to be very optimistic about the fate of the final civilization, the one he lives in. Faced with the prospect of the loss of vigor of his own civilization, Toynbee has turned to obtain consolation from a syncretic religion embracing the best in the various religions of mankind. He claims that out of man's travails comes a higher religious vision. The historian becomes a meta-historian. But this return to the consolations of religion represents a kind of retrogression, an escape from the mundane world, a retreat from a rational to a mythopaeic view.[7]

The eighteenth century was pleased that the human mind was malleable, but we see this not so much from the good side as from the bad side. Its remarkable that in the eighteenth century when they talked about the malleability of the human mind they generally thought that the educator, the leader, the publicist, would try to influence the mind in a manner which would enlighten it and improve it. It seldom occurred to them that, if the mind was malleable, it could also be distorted, misinformed and manipulated for malevolent purposes. The possibility was there, but they liked to accentuate the positive possibility not the negative one. But we see the impressionability of the human mind as leaving us exposed to mani-

[7]F.H. Underhill, 'Arnold Toynbee, Metahistorian', *Canadian Historical Review*, Vol. XXXII, No. 3, Sept., 1951, pp. 201-219. See also his review article on Toynbee in same journal, Vol. XXXVI, No. 3, Sept., 1955, pp. 222-235. Admittedly Toynbee is somewhat more optimistic about social progress in his last volumes.

pulative processes, in the west particularly by commercial advertising, and in certain totalitarian states by consciously directed propaganda of the central government. It is this factor of the mind controlled, indoctrinated, manipulated, stamped out like a cooky, which fills many of us with alarm.[8]

In any case we seem a lot less rational, less likely to apply the empirical critical method to our problems which the eighteenth century advocated, much less inclined to adopt such a method than the eighteenth century intellectuals hoped. Freud has emphasized the darker, irrational, hidden elements of the mind, the dark caverns of our minds. Moreover we have witnessed irrationality in its worst forms. We have observed genocide and total war. We have seen many of our young people trying to escape into a half-real world of drugs. And recently we have viewed a remarkable revival of interest in witchcraft, magic, and the occult.

The mastery of nature has given us the capacity to destroy ourselves. At first it looked highly desirable to dominate nature, but we have mastered it to such an extent that we have power at our disposal capable of destroying ourselves several times over, by nuclear bombs, deathly chemicals, or biological weapons. Instead of a heavenly city on earth we have the spectre of possible utter devastation. War in the past has often caused unbelievable destruction in certain areas, but the current situation is completely novel in the history of mankind. For the first time we face the possibility of total annihilation.[9]

At the same time we are menaced by what one observer has called 'the population bomb'. Advances in hygiene and medicine, to which the eighteenth-century looked forward, have contributed to the threat of catastrophic over-population. Most eighteenth-century thinkers actually hoped that their countries would have an expanding population, which they regarded as a sign of a vigorous society and economy. In his vision of progress Condorcet thought that if ever population threatened to outstrip the food supply the problem would be solved by simple techniques of birth control. For us the problem seems almost impossible to solve. Until the mid-seventeenth century population doubled roughly every thousand years or so, reaching about 500 million at that time. It reached a billion people by the mid-nineteenth century, doubling in some two hundred years. We now have well over three billion people, doubling recently in under forty

[8] V. Packard, *The Hidden Persuaders*, New York, 1957; J.A.C. Brown, *Techniques of Persuasion*, Harmondsworth, 1963; and--a very perceptive work--J. Ellul, *Propaganda; the Formation of Men's Attitudes*, New York, 1965.

[9] On the war system the literature is immense. Among the best books are R. Aron, *The Century of Total War*, Garden City, 1954; R.J. Barnet, *The Economy of Death*, New York, 1969, H. Kahn, *On Thermonuclear War*, Princeton, 1960; and H. York, *Race to Oblivion*, New York, 1970.

years. If this rate continues, by the end of the century, in the lifetime of many of us and our children, we shall have six billion people. After that it will be standing-room only, with teeming masses competing ruthlessly for space, food, and resources.[10]

Technological prowess also threatens to deplete our natural resources for the sake, not of all men, but of a small segment of mankind. As you know some recent statistical studies have been done in which scholars fed into a computer on the one hand information about the rate at which we are using resources, and on the other hand the amount of resources that we know that we have, and on this basis have calculated the point at which we or our children are going to run out of iron ore, oil, gas and other natural resources. There have been critics of this view, but the investigators who have used this method have made us aware of a fact which I think we cannot deny: that unlimited growth is impossible with finite supplies. We live on a little planet, we are fenced in so-to-speak, we do not have inexhaustible resources, and yet we have been looking forward to infinite expansion.[11]

Another point that has been made in some recent books is that the rate of technological change may be so rapid that we will scarcely be able to stand the shock to our civilization and to ourselves of the sheer rate of innovation. As an historian, walking out on the limb for a moment, I would say cultures can die in at least two ways. They can atrophy because they can enter some kind of a stagnant backwater and go nowhere. We have lots of examples of cultures that have become immobilized in this way, whose growth has been arrested because of the overwhelming force of tradition, lack of stimulation from the outside, or for some other reason. These cultures have simply come to a halt. But a civilization can also be destroyed by the shock of too much and too rapid transformation, innovation which overwhelms its traditions, which severs its roots, which shakes its foundations so that it is incapable of dealing with the problems which are created. A society then can die, not only because it has ceased to develop and to innovate, but because of too much, too rapid, and too sudden change. And our technology is innovating at an incredible rate.[12]

[10]A very good general work on the major problems facing mankind--the war, population pressure, resource depletion, and environmental overload--is R.A. Falk, *This Endangered Planet*, N.Y., 1971. See too G. Borgstrom, *The Hungry Planet*, New York, 1970. But probably the best book on the problem of overpopulation is P.R. Ehrlich, *The Population Bomb*, New York, 1968.

[11]The statistical investigation referred to in a report for the Club of Romes 'Project on the Predicament of Mankind' by D.H. Meadows, D. Meadows, J. Randers and W.W. Behrens, *The Limits to Growth*, New York, 1972. See too *Resources and Man*, San Francisco, 1969 a report by a committee set up to study this question by the National Academy of Sciences--National Research Council.

[12]H. Kahn and A.J. Wiener describe the rapid change we may expect in the next three decades in *The Year 2000*, New York, 1967. The disruptive impact of such change is the theme of A. Toffler, *Future Shock*, New York, 1970.

Moreover this technology which creates our high standard of living simultaneously poisons our air, pollutes our water, and contaminates our soil. Already some 125 species have become extinct. The International Union for Conservation of Nature has published five huge 'Red Data Books' listing other species which are endangered. Some of these species have disappeared or been threatened by natural causes, but most of them are victims of man's devastating impact on nature. And we are imperilling not only our fellow creatures but ourselves as well. Continued ecological abuse by wreckless industry and technology, searching for ever greater production, will render the world uninhabitable.[13]

Well then where do we stand? As an historian how would I look at our dilemma in the twentieth century? Is anything left of the idea of progress? Were these men in the eighteenth century who were optimistic about the future completely wrong? Well let me hazard a few very reckless comments in conclusion. In my opinion there is no law of progress such as Condorcet believed when he wrote his famous book during the Terror of the French Revolution. But if there is no <u>law</u> of progress, the <u>idea</u> of progress still seems to me our only hope.

The mass media may have been abused and men's minds poisoned and manipulated, but somehow we do have to do what Diderot hoped to do. That is, we have to enlighten mankind, we do have to somehow change the attitudes of ourselves and our fellow human beings, we have to re-orient man's values and attitudes. But we have to do so without infringing on the dignity and the freedom of the individual. Since the power to persuade is the ultimate power in society, those who exercise it must be carefully controlled and watched. This task of re-educating mankind, re-orienting his values, is therefore going to be a very difficult one because it is intimately connected and interwoven with the problem of our freedom and our dignity.[14]

We may not be as rational as some men once believed, but I do not think that is an argument for being irrational. A critical, empirical approach still seems to me preferable to irrationalism, mysticism, and drugs. It seems to me that these smack of defeatism and exploit the worst features of the human mind. The progressive thinkers of the eighteenth century repeatedly republished an article entitled 'Le Philosophe', evidently because they felt it described the role which they believed the intellectual ought to play in society. It argued that the thinker should abandon religious mysticism, apply a critical rational method to solve problems, and above all use his intelligence for social betterment. For me this is still a noble--and plausible--ideal.

[13] A superb book on ecological contamination is J. Dorst, *Before Nature Dies*, Baltimore, 1971. See too D.W. Ehrenfield, *Biological Conservation*, New York, 1970. The *Red Data Books* produced by the I.U.C.N. have been edited by Noel Simon and published in Morges, Switzerland, 1966--.

[14] The dangers implicit in conditioning people to behave in a socially desirable manner are all too evident in B.F. Skinner, *Beyond Freedom and Dignity*, N.Y. 1971.

It seems to me too that only rightly directed technology can counter the abuses of technology. By developing new sources of energy, by recycling our resources, by cleaning up our air and water, we may be able to solve some of our problems, but we will not solve those problems simply by abandoning technology, or trying to freeze the present situation where part of the world is enjoying a high standard of living and the other part is not. Furthermore even if you could freeze technology would that be politically possible? Could you leave behind the countries which have not yet experienced and benefitted from modern technology?

Finally, even the most severe critics of modern technology must admit that the expectation of certain eighteenth- and nineteenth-century thinkers that it would ameliorate human life have not been entirely unfulfilled, at least for part of mankind. Few would lament the advent of electric light, railways, macadamized roads, penicillin, indoor toilets or central heating. For all their abuses radio and television have brought enjoyment to many and broadened their horizons. In any large bookstore amid a lot of trash one can find the great classics as well as important modern works in cheap editions. In record shops along with the ephemeral hits of the day one can tap the great music of all times and cultures in a way impossible in any previous age. And in richly illustrated art books we now have museums without walls where we can see in our own homes the great art produced by man throughout space and time.

'What we must do, I believe, is accept change, even embrace it, but at the same time control it so that it contributes to the quality of life rather than subtracts from it', James Michener argued two years ago in a provocative article entitled 'One and a Half Cheers for Progress' which appeared in the *New York Times Magazine*.[15] To me his argument seems convincing. Admittedly many trends in the world are alarming, but fortunately for man trend is not necessarily destiny. We are therefore in what I would call an existential position. No God guarantees our upward climb to a heavenly city. No law of history assures us of terrestial bliss in future. We must shape our own destination. Whether we progress or whether we regress is up to us. Our fate is in our hands.

[15]J.A. Michener, 'One and a Half Cheers for Progress', *New York Times Magazine*, Sept., 5, 1971, p. 9. For other reappraisals of the idea of progress see P. Piganiol, *Maîtriser le Progrès*, Paris, 1968; V. Brome, *The Problem of Progress*, London, 1963; M. Ginsberg, *The Idea of Progress, a Revaluation*, London, 1953; G.G. Iggers, 'The Idea of Progress: a Critical Reassessment', *American Historical Review*, Vol. LXXI, No. 1, October 1965, pp. 1-171.