

THE SOCIAL FUNCTION OF KNOWLEDGE

by
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In the past few years a new social theory has succeeded in winning widespread adherence in diverse intellectual circles. The basis of this theory is the claim that "knowledge" is increasingly the crucial factor in the political economy of modern society and that the novel function of knowledge signals the advent of a society qualitatively different from those of the past. This theory is often presented in a highly popularized form, without serious argumentation, but it will also be found in conventional academic literature. Although the theory has not yet been presented in a rigorous manner, it raises many important questions of a very general nature about the interpretation of modern society, and for this reason a critique of the theory is desirable.

The extremely diffuse character of the phenomena to which the theory calls attention creates special difficulties for a critical treatment. The concept of knowledge employed in the theory is never examined and, as I shall try to show, this leads to serious confusions. For example, the idea that "men of knowledge" should govern society is as old as Plato's *Republic*, but it is quite apparent that the contemporary theory has little in common with Plato's. Without a firm basis for its central concept (knowledge), however, the theory tends to become circular: an *a priori* limitation on the range of the concept acts

as a selective mechanism vis-à-vis the data assembled to demonstrate the theory; or, in other words, evidence which might modify the theory is ignored because it is related to those aspects of knowledge excluded by the conceptual bias of the theory.

The following pages attempt to analyze the theory in the light of such difficulties and to assess its significance. In part I, some representative samples of the theory are cited and explored; part II compares the arguments of the contemporary theory with the conception of the social function of knowledge in nineteenth-century political economy and argues that such a comparison can help us to distinguish the elements of genuine novelty in recent developments, as opposed to simple extensions of earlier trends; part III undertakes a critique of the concept of knowledge as it is found in political economy and offers suggestions for modifying the contemporary theory of the social function of knowledge.

I

In general, the thesis under discussion here has been propounded in two contexts: (1) reflections on modern technological developments and their social consequences; (2) discussions of leadership and political power in the technologically-advanced nations, i.e., the

problem of "managing" advanced societies. What unites these two themes is the overriding concern for the future (now known as "futurology"), the effort to understand and predict the underlying tendencies in the social development of those nations which possess a highly sophisticated technological apparatus. Most proponents of this theory seek to occupy a middle ground between the political poles of conservatism and radicalism. They distinguish themselves from the former by their insistence on the inevitability of dramatic changes in the political-economic structure of the existing society and by their fondness for the idea of "managing" society, and from the latter by their contention that these dramatic social changes will not explode the existing institutional fabric.

Formulated very broadly, the theory claims to discern a qualitative difference between the new society and all its predecessors: "Knowledge permeates the whole ethos and structure of technological society. This is what mainly distinguishes it from previous forms of society."¹ Moreover, it is argued that present-day society is already conscious of this difference and that it deliberately encourages this ongoing transformation: "Our society values the production and inculcation of knowledge more than ever before, . . . Our own age is characterized by a deliberate fostering of technological change and, in general, by the growing social role of knowledge."² Such remarks clearly indicate

that, in the view of these writers, the new social phenomenon of knowledge represents not only a rising level of general education and technical skills in the population at large, but also a structural (institutional) alteration in society which is already the object of conscious management to some extent.

Other writers have made this point quite explicitly and in so doing have offered a sketch of the political economy of the new society. Of these the best known is J. K. Galbraith. He writes in

The New Industrial State:

Given a competent business organization, capital is now ordinarily available. But the mere possession of capital is now no guarantee that the requisite talent can be obtained and organized. One should expect, from past experience, to find a new shift of power in the industrial enterprise, this one from capital to organized intelligence. And one would expect that this shift would be reflected in the deployment of power in the society at large. . . .

Power has, in fact, passed to what anyone in search of novelty might be justified in calling a new factor of production. This is the association of men of diverse technical knowledge, experience or other talent which modern industrial technology and planning require.³

Galbraith contends that the "shift" from capital to organized technical knowledge as the crucial factor of production is analogous to the earlier shift from land to capital and that important political changes must result from this

1. J. H. Schaar and S. S. Wolin, "Education and the Technological Society," *The New York Review of Books*, XIII, no. 6 (October 9, 1969), p. 4, col. 4.

2. E. G. Mesthene, "How Technology will Shape the Future," *Science*, CLXI (July 12, 1968), pp. 138, 137.

3. J. K. Galbraith, *The New Industrial State* (Boston: Houghton Mifflin, 1967), pp. 68, 69.

alteration in the productive process. The large corporation, as the basic unit of the productive process, is the progeny of capital; but as a result of its own "dialectical" development, the large corporation encounters certain necessities (most importantly, long-range planning) which reduce the productive significance of capital and require a new element, technical knowledge organized in the form of a "technostructure." Consequently, according to Galbraith, power in the "society at large," once based on the possession of capital, now "passes" to the technostructure.⁴

The variations on Galbraith's arguments usually exaggerate the perspectives of this dramatic social portrait. For example:

Since 1945 spectacular events in science and technology . . . have pushed our society across a threshold. Beyond this threshold, knowledge assumes a new importance in society, and becomes liberated from restrictions that have impeded its growth in the past. The magnitude, interrelations and synergistic effects of the new order of science and technology have made it the dominating fact of our times. Knowledge was always power, but it was not always

the central and controlling force in society. Today it is.⁵

The well-known writer Peter Drucker has expressed similar views at great length in a recent book. For him the most important of all the broad changes now occurring in society may be described as follows:

Knowledge, during the last few decades has become the central capital, the cost center, and the crucial resource of the economy. This changes labor forces and work, teaching and learning, and the meaning of knowledge and its politics. But it also raises the problem of the responsibilities of the new men of power, the men of knowledge.⁶

The subsidiary points stressed by Caldwell and Drucker are: (1) Knowledge is the greatest economic "resource" in the modern productive process; (2) the organization of knowledge—"the systematic and purposeful acquisition of information and its systematic application"⁷—is the key to understanding the use of knowledge as a productive force; and (3) "knowledge must be managed,"⁸ i.e., the development of a capable stratum of administrators (knowledge managers) is the most pressing concern of the new society.

Galbraith, Caldwell, and Drucker offer a common framework for a new political economy. The importance of organized knowledge in the productive

4. Many of these themes have already been discussed extensively in academic and popular journals; see especially J. E. Meade, "Is The New Industrial State Inevitable?" *The Economic Journal*, LXXVIII (1968), pp. 372-392. My comments in what follows will not seek to recapitulate this discussion, but will be focussed almost entirely on knowledge as a factor of political economy. It has often been noted that Galbraith's idea of the technostructure brings to mind both Veblen's "soviet of engineers" and the earlier currents of technocracy.

5. L. K. Caldwell, "Managing the Scientific Super-Culture: The Task of Educational Preparation," *Public Administration Review*, XXVII (1967), p. 128.

6. P. F. Drucker, *The Age of Discontinuity* (New York: Harper and Row, 1969), p. xi.

7. *Ibid.*, p. 266.

8. Caldwell, p. 130.

apparatus is not merely an "economic" fact, an interesting feature of industrial production in an era of advanced technology, but much more a general social phenomenon; and one of the primary consequences of this phenomenon is the possession of political power by the representatives of organized knowledge, together with the responsibility for solving social problems.⁹ Thus these theorists expect that the *integration* of the various spheres of existence (political, economic, social), a process that has become increasingly noticeable in recent decades, will proceed steadily in the future. Brzezinski, for example, argues that there will be a need for continually re-training the population as a whole, so that individuals will be able to adapt to rapid technological changes, and he sees this as part of a larger process: "As education becomes both a continuum, and even more application-oriented, its organizational framework will be re-designed to tie it directly to social and political action."¹⁰

Of course it is expected that the political consequences resulting from these larger trends will be beneficent. All of these writers adhere to the familiar "anti-ideological" standpoint, i.e., they believe that socio-political problems can be transformed into technical problems (at least to a large extent) to be solved by the application of organized knowledge.¹¹ The political scientist Robert E.

Lane, for example, believes that a "knowledgeable society" will be characterized by a diminishing role for politics and ideology, and he suggests that the social decision-making process is already shaped accordingly:

... the dominant scholarly interpretation of policy-making processes has changed in the direction of emphasizing the greater autonomy of political leaders and legislators: with respect to the role of pressure groups, the power elite, and the electorate. If leaders and other legislators are less bound by the domain of pure politics than we had thought, then they are freer to be guided by the promptings of scientists and findings from the domain of knowledge.¹²

As we have seen, the theory stresses the organization of knowledge, and this fact is of primary importance when the political ramifications of the new social role of knowledge are discussed: a powerful element of authoritarianism and a fondness for administrative discretion runs throughout the various formulations of the theory. "People may have to be told," Lane remarks "not that they are miserable, but that the conditions of their lives are, in some sense, remediable."¹³ Apparently the work of the knowledge managers will not be restricted to solving social problems, but also will be devoted to molding the public consciousness of those problems.

Among those who have emphasized the changing place of knowledge in the

9. "The task of the knowledge administrator . . . is to see, as far as feasible, that all relevant knowledge is brought to bear upon the problems that society needs to solve." (*Ibid.*)

10. Z. Brzezinski, "America in the Technetronic Age," *Encounter*, XXX, no. 1 (January, 1968), p. 22.

11. For two typical statements of this idea see Brzezinski, pp. 18-19 and John Rader Platt,

The Step to Man (New York: Wiley, 1966), p. 105.

12. R. E. Lane, "The Decline of Politics and Ideology in a Knowledgeable Society," *American Sociological Review*, XXXI (1966), p. 658.

13. *Ibid.*, p. 659.

political economy of modern society, only Daniel Bell has expressed some reservations about the propositions outlined above. Bell shares with them the conviction that the leadership of the new society will be drawn from the close alliance of educational and business institutions (research corporations, industrial laboratories, experimental stations, and universities); however, he disputes the idea that technocrats will rule society and maintains that the political process will remain free from control by the technostructure to a considerable degree. More importantly, he contends that "knowledge is at the basis of every society" and that what really distinguishes contemporary society from its predecessors "is not just a shift from property or political position to knowledge as the new basis of power, but a change in the *character* of knowledge itself."¹⁴ He means that contemporary society relies heavily on theoretical knowledge, whereas earlier forms of society were dependent upon practical techniques.

As a contribution to political economy the theory under discussion here displays certain pronounced limitations, the most important of which is a lack of careful exposition and analytical rigor. The dramatic vistas of a prodigious technology and a growing conviction of the necessity for increased socio-economic planning have prompted a revaluation of "knowledge" as a productive factor and as a means for social change, and this theory has attempted to synthesize the elements of this novel perspective into a coherent whole. This synthesis is quite incomplete; yet, although its short-

comings are manifest, its increasing currency in the realm of social theory justifies a detailed review and critique. While it is true that this theory specifically concerns itself with the presently existing society of the technologically-advanced nations (and the tendencies which are shaping its future), we will be better able to evaluate the theory's claims if we first briefly examine the conception of the social function of knowledge in nineteenth-century political economy.

II

What requires examination is the assertion (or, in some cases, the strong implication) that the place of knowledge in the productive process of technologically-advanced societies signifies a *qualitative* change vis-à-vis earlier forms of production, in that knowledge now constitutes the "basis" or "primary resource" of the economy. To analyze the assertion we must inquire first whether the role of knowledge in production was recognized in the earlier tradition of political economy and, if so, how knowledge was treated within the ensemble of productive factors.

In the context of a study of seventeenth- and eighteenth-century economic literature, E. A. J. Johnson notes his agreement with the prevailing contemporary opinion that "the keys that can open the treasures of economic progress are therefore forged in the schoolroom, the laboratory, the inventor's shop, and the research institute."¹⁵ But he argues that this idea does not mark an "absolute" difference between earlier

14. Daniel Bell, "Notes on the Post-Industrial Society (I)," *The Public Interest*, no. 6 (Winter, 1967), p. 28; italics in original.

15. E. A. J. Johnson, "The Place of Learning, Science, Vocational Training, and 'Art' in Pre-Smithian Economic Thought," *Journal of Economic History*, XXIV (1964), p. 129.

epochs and our own; rather, he finds in the literature which he has surveyed a keen appreciation of the crucial importance of technical knowledge for economic progress. In this literature the word "art" is used to denote the factors of knowledge, skill, and technical proficiency, and in general "'art' was . . . therefore conceived as an indispensable prerequisite for economic development since it represents the 'artificial means' whereby a progressive economy can improve its natural resources."¹⁶

The development of political economy in its "classical" period beginning with Adam Smith maintained this insight and also deepened it, especially in sensing the cardinal value of general theoretical knowledge of every kind and in ranking knowledge among the primary components of society's "capital." For example, Adam Smith, discussing the elements which compose the stock of fixed capital, remarks:

Fourthly, of the acquired and useful abilities of all the inhabitants or members of the society. The acquisition of such talents, by the maintenance of the acquirer during his education, study, or apprenticeship, always costs a real expense, which is a capital fixed and realized, as it were, in his person. These talents, as they make a part of his fortune, so do they likewise of that of the society to which he belongs.¹⁷

In the nineteenth century, under the impact of accelerating scientific discovery and its successful technological

applications, the political economists emphasized the unity of theoretical and practical knowledge and perceived its beneficent social consequences in a very broad framework. Say writes:

Academies, libraries, public schools, and museums, founded by enlightened governments, contribute to the creation of wealth, by the further discovery of truth, and the diffusion of what was known before; thus empowering the superior agents and directors of production, to extend the application of human science to the supply of human wants . . .¹⁸

And likewise J. S. Mill:

In a national, or universal point of view, the labour of the savant, or speculative thinker, is as much a part of production in the very narrowest sense, as that of the inventor of a practical art; many such inventions having been the direct consequences of theoretical discoveries, and every extension of knowledge of the powers of nature being fruitful of applications to the purposes of outward life.¹⁹

These quotations are samples from an extensive literature. At the conclusion of a recent comprehensive survey of the views of classical political economists (from Adam Smith to the modern historians of the subject, such as Edwin Cannan) on the topic of education, the author summarizes the prevailing judgment as follows: "Education is a capital

16. *Ibid.*, p. 143; many examples from the literature are cited on pp. 142-144.

17. Adam Smith, *The Wealth of Nations*, ed. E. Cannan (New York: Modern Library, 1937), pp. 265-266.

18. J.-B. Say, *A Treatise on Political Economy*, tr. C. R. Prinsep (New York: A. Kelley, 1964), p. 201.

19. John Stuart Mill, *Principles of Political Economy*, ed. J. M. Robson, *Collected Works* (Toronto: University Press, 1965), II, p. 42.

good in that it abridges labour: an educated man is usually more productive than an untrained worker. To the society as a whole, education also constitutes a stock of immaterial capital which is far more important than physical capital."²⁰

Such ideas were systematized and modified in the work of Marx. In the writings of his predecessors he saw a contradiction between the grudging recognition of private ownership in the means of production, on the one hand, and the idea of an expanding *social* productive capacity, on the other. From the point of view of society as a whole, the growth of the productive forces "is again traceable in the final analysis to the social nature of labor engaged in production; to the division of labor in society; and to the development of intellectual labor, especially in the natural sciences."²¹ In other words, Marx described the effects of scientific-technological progress in the realm of political economy as the growing productivity of labor; but, of course, the productive applications of scientific-technological progress in industry—embodied most generally in the form of increasingly sophisticated machinery—appear as fixed capital, i.e., private property.²²

For Marx the expanding, direct social role of knowledge in the productive process of industrial capitalism was one of the most crucial features of that system, and he returns to this point again and again in the various stages of his analy-

sis. However, he thought that this would have broad social consequences, transcending the economic sphere:

The development of fixed capital indicates to what extent general social knowledge has become an immediate productive power; and thereby the conditions of the social life-process themselves come under the control of the "general intellect" and are restructured according to it.²³

The phenomenon of a productive system which encourages and becomes dependent upon scientific knowledge and upon sophisticated technical skills widely diffused among the labor force thus raises the possibility, according to Marx, of shaping the social process along more rational lines. We will discuss below the question of the extent to which this idea has been adopted by the contemporary theorists.

To summarize: in the evolution of political economy from the seventeenth to the nineteenth centuries there is a clear appreciation of the fact that knowledge represents a key productive resource; indeed, in many cases it is evident that already during this period scientific-technical knowledge was regarded as the cornerstone of the truly revolutionary changes in production brought by the industrial system. Secondly, the integral importance of theoretical knowledge in the broadest sense was understood clearly by the nine-

20. Pierre N. V. Tu, "The Classical Economists and Education," *Kyklos*, XXII (1969), p. 714. The author does not include Marx in his survey.

21. Karl Marx, *Capital* (Moscow: Foreign Languages Publishing House, 1962), III, p. 81.

22. Marx, *Theories of Surplus Value, Part I* (Moscow: FLPH, n.d.), p. 379.

23. Marx, *Grundrisse der Kritik der politischen Ökonomie* (Berlin: Dietz Verlag, 1953), p. 594; my translation. In this passage Marx has inserted the English word "knowledge" after the German "Wissen," and the phrase "general intellect" is likewise in English. See also the related passages cited by H. Marcuse in the foreword to *Negations* (Boston: Beacon Press, 1968), p. xviii.

teenth-century political economists. Thirdly, for Marx at least, this incorporation and promotion of knowledge in the productive process marked a decisive step for society as a whole, specifically a qualitative transformation—in his words, the emergence of the “general intellect” as a controlling factor in human affairs—in the processes through which individuals and society interact.

To be sure, all this does not imply that the earlier achievements of political economy provide a completely adequate account of contemporary occurrences. In “classical” political economy one does not find more than a dim awareness of the broader social implications of knowledge as a factor of production or of the possible contradictory features of this novel economic resource. On the other hand Marx, whose entire analysis concentrates on the contradictory character of this process, seriously underestimated the degree to which the new concatenation of productive factors could persist within the framework of capitalist property relationships. Yet both the successes and the failures of the earlier political economy contribute to a better understanding of what contemporary phenomena represent extensions of long-range trends and what represent significant specific innovations of the present; in so doing, these positive and negative attributes of earlier thought assist us to formulate a judgment on the contemporary theory.

III

As a *theory* of political economy the current hypothesis presented in section I above cannot be accepted, for it is misleading to speak—as another author has done recently—of the “emergence” of technical knowledge as a factor of

production.²⁴ The crucial role of technical knowledge (and its basis in theoretical knowledge) has long been recognized in the history of modern political economy. At present we are witnessing some of the dramatic *accumulating* effects of this historical process identified long ago by the political economists, and it is undeniably true, as the contemporary theorists argue, that the quantitative increase in the application of technical knowledge in production has resulted in certain qualitative social changes. Moreover, we should expect that qualitative changes of such a far-ranging nature would introduce some fundamental difficulties or contradictions into the social system. The primary tasks of present-day theory are to evaluate the changes and to specify the possible contradictions.²⁵

As we have seen, the theory claims that two general social changes flow from the importance of knowledge in the economic productive process: (1) a decline in “ideological” and “political” approaches to social problems in favor of a “managerial” approach based upon technical expertise; (2) a corresponding achievement of social and political power by the “technostructure.” Little attention has been paid in this literature to the problems raised by these developments, although in this respect Galbraith is a notable exception. He writes:

Thus the paradox. The economy for its success requires organized public

24. James O'Connor, “The University and the Political Economy,” *Leviathan*, I, no. 1 (March, 1969), p. 14.

25. Amitai Etzioni's recent book, *The Active Society* (New York: Free Press, 1968), contains an extensive discussion of knowledge in modern society which may be compared with what follows here.

bamboozlement. At the same time it nurtures a growing class which feels itself superior to such bamboozlement and deplores it as intellectually corrupt. The subculture which requires such obfuscation for its existence can only be regarded with disdain. That culture responds with a sense of hurt and guilt and the indignation which comes from the knowledge that its needs sustain and nourish its academic critics.²⁶

A related difficulty arises in the managerial training process, since the educational system cannot at present entice those with the most creative abilities into such careers; Galbraith refers to this as the problem of "reproducing the technostructure."²⁷ Similarly, Drucker maintains that the determination of the social status of the "knowledge worker" will present the developed societies with their most significant social question in the coming decades.²⁸

Those whose analysis represents a more radical point of view have continued to stress the developing contradiction, identified by Marx, between the social character of production based upon advanced scientific-technical knowledge and the direction of that economy by private interests. James O'Connor contends that

the social character of scientific and technical knowledge means that ultimately no *private* form of business organization can completely contain and control it. For this knowledge to

contribute to the benefit of the corporations, the intervention of the state is needed. In effect, a form of state capitalism must accompany the growth of the corporate conglomerate.²⁹

In this passage O'Connor reverses the emphasis in Galbraith's analysis, for the latter claims that "in notable respects the mature corporation is an arm of the state."³⁰ The major economic interests, according to O'Connor, utilize the state power to promote the "socialized product of the university" (technical and administrative knowledge), in order to insure a highly trained work force, improve marketing practices, manage social dislocations, and develop techniques of imperialist control.

What are the major strengths and weaknesses in the various formulations of this theory? Its strong features are an emphasis on the interpenetration of the economic and political spheres of society, on the crucial importance of educational institutions (particularly the university) in the present political economy, on the powerful dynamic of advanced technology as an instrument which propels institutional change, on the character of an increasingly skilled work force, and on the overall consequences of the direct application of knowledge to the solution of persistent causes of social unrest. Although it is true that all of these are the cumulative results of deeply-embedded tendencies in modern society, the theory is correct in stressing that at some point the simple quantitative growth of these factors is transformed into major qualitative differences, some already present and others

26. *The New Industrial State*, p. 302.

27. *Ibid.*, p. 375. He suggests certain changes "not inconsistent with the continued existence of that (industrial) system," all of which "involve the sensibilities and concerns of the mind" (p. 387).

28. *The Age of Discontinuity*, pp. 277-278.

29. *Op. cit.*, italics in original.

30. *Op. cit.*, p. 304.

to be expected in the near future. Sufficient evidence of this has been provided, I believe, in those contributions in which the theory has been expounded.

Its weakest elements stem from a failure to appreciate the long-range historical dimensions of the problem which it seeks to elucidate. The argument that the important place of knowledge in the productive process is *in itself* an outstanding novelty is incorrect. Likewise the expectation that the growing social role of knowledge in itself will reduce societal discord by undermining ideologies and "political" clamor: a glance at the past will show that this is a very old hope, and it seems to me that the historical record offers little real basis for such a comforting illusion.³¹ Moreover, without a more critical attitude toward the concept of knowledge itself, the theory cannot succeed in establishing a firm dichotomy between knowledge and ideology.

What is meant by "knowledge" in this theory? The question is rarely, if ever, posed. Drucker defines it as "the systematic organization of information and concepts."³² The word "organization" seems to be the key: the organization of an increasingly efficient process whereby an alliance of governmental, educational, and corporate institutions insures rapid economic growth, technological progress, and social peace. Yet is it correct to *identify* knowledge with organized knowledge? Especially when,

as in this case, the term organization conceals an equivocation, i.e., the difference between the proper organization of thought (rationality) and the "rationalization" (increasing efficiency and productivity) of the economic system?

Rationality in thought refers to the formulation of the principles governing natural and social processes and to the ongoing philosophical critique of the concepts employed in this inquiry. As such it cannot be immediately identified with any specific organization of production; or, in other words, the increasing rationalization of an economic system does not necessarily imply a higher degree of rationality. More concretely, the application of highly sophisticated scientific-technical knowledge in the productive system (rationalization) does not make that system more rational if its products are in themselves irrational, e.g., if they incorporate planned obsolescence, are designed to satisfy manipulated wants, or are harmful to the environment (waste and pollution problems).³³ A judgment on the rationality of what is produced and why it is produced is quite different from considerations of increasing economic efficiency and productivity.³⁴ This is not the place to make such a judgment; rather, I am simply contending (1) that at some point the judgment must be made and (2) that the theory under discussion hinders an awareness of the problem by

31. Pierre Tu (*op. cit.*) offers several examples from nineteenth-century political economy. For an earlier formulation see the remarkable passage in Francis Bacon's *The Advancement of Learning: The Works of Francis Bacon*, ed. Spedding, Ellis, and Heath (London: Longman & Co., 13 vols., 1857-1872), III, p. 302.

32. *Op. cit.*, p. 268.

33. It is one of the great merits of Galbraith's *New Industrial State* (see esp. chapter 18) that the concept of manipulation of wants represents one of the cornerstones of his analysis.

See also O'Connor's excellent brief comments on this point (*op. cit.*, p. 15).

34. Cf. Etzioni, *op. cit.*, p. 213.

obscuring the distinction between rationality and rationalization.³⁵

If rationality is identified with rationalization—in other words, if knowledge is identified with organized technical knowledge applied to production—, then the concepts of rationalization and organized knowledge tend to become “ideological,” i.e., dogmas propounded to serve the interests of those who manage the productive process. This collapse of the dichotomy between knowledge and ideology is directly related to the emphasis in the theory on the assumption of power by the technostructure or knowledge managers. Apparently this dramatic change in human society—the emergence of knowledge as an economic, social, and political factor—will not alter fundamentally one of the most common aspects of society, namely the disparities in power among individuals. Are hierarchical power relationships inherent in knowledge *per se*, or rather in a system of organized knowledge, i.e., a “managed” society?

The theory emphasizes the increasingly sophisticated skills of the labor force in general. Should we not then expect a corresponding decline in the management of these skilled individuals? Are these the individuals who will have to be “told” that their problems can be solved for them by experts?³⁶ There does not seem to be much scope for the exercise of the “general intellect” in such a society. In sum: The idea of a society governed by an elite of knowledge managers is an ideology which serves the maintenance of authoritarian decision-making processes and which masks the

difference between private and public interest.

The confluence of knowledge and power in a technocratic elite is a favorite theme in this theory. As noted earlier, Veblen and the technocratic movement of the nineteen-thirties have anticipated much of this; yet this idea, too, has a longer history in the modern West. Its classical expression occurs in Francis Bacon’s seventeenth-century utopian sketch, *The New Atlantis*, where an isolated group of scientist-engineers are presented as the agents of social progress. Bacon’s vision has exerted an immense influence in almost every epoch since its appearance.³⁷ Very complicated issues are raised by this tradition, and these are compounded by the fact that in the twentieth century the Baconian vision has been reversed: The popular “dystopian” novels stress the negative features of societies ruled by various forms of technocratic elites. The most charitable comment which one can make on the theories presented in section I above is that they gracefully avoid mention of such complications, e.g., the procedures whereby a “responsible” exercise of power can be assured. Until these issues are confronted, this aspect of the theory lacks any basis for consideration.

The proponents of the theory under discussion here neglect the fact that the growing social importance of knowledge lays the basis not only for an authoritarian exercise of power by the

35. See Herbert Marcuse, “Industrialism and Capitalism in the Work of Max Weber,” *Negations*, pp. 201-226.

36. See footnote 13 above.

37. For its influence on English thought see Nell Eurich, *Science in Utopia* (Cambridge, Mass.: Harvard University Press, 1967), *passim*; its impact on French thought (especially Condorcet, Saint-Simon, and Comte) is indicated by Frank Manuel, *The Prophets of Paris* (Cambridge, Mass.: Harvard University Press, 1962), pp. 62, 84-85.

knowledge managers, but also for a very different possibility: a wide diffusion of power and authority among individuals. Curiously enough, an appreciation of this alternative possibility is to be found at the two political extremes of conservatism and radicalism. Some time ago F. A. Hayek mentioned the significance of what he called "unorganized knowledge"—the knowledge of immediate situations and local circumstances—for the preservation of freedom in society, and he added that "dispersal of knowledge" among the population as a whole was likewise essential.³⁸ More recently this theme has been adopted and modified by radical critics. For example, John McDermott states: "For the concentration of effective knowledge of and about American society in several giant organizations can lead to no other result than a substantial decline in the capacity of ordinary Americans to control that society and those organizations."³⁹ McDermott argues that this

tendency of advanced technological society is undermining the "quality of the social experience" in the population as a whole and is preparing the foundations for technocratic despotism.⁴⁰

One should reasonably expect that the steady rise in the level of skills among the labor force and the dynamic role of knowledge in the socio-economic sphere would bring a decline not only in "ideology" but, more fundamentally, in the exercise of authority and power over individuals—in the management of their lives by institutional functionaries—and a corresponding rise in *self-management* by individuals and informal groups. But, instead, the contemporary theory reflects the age-old impetus for a more or less despotic marriage of knowledge and power. While falsely priding itself on the novelty of its message, in fact the theory presents in modern costume an all-too-familiar tale. It is time to explore some very different avenues.

38. F. A. Hayek, "The Use of Knowledge in Society," *Individualism and Economic Order* (Chicago: University Press, 1948), pp. 77-91.

39. John McDermott, "Knowledge is Power," *The Nation*, CCVIII, no. 15 (April 14, 1969), p. 459.

40. McDermott, "Technology: The Opiate of the Intellectuals," *New York Review of Books*, XIII, no. 2 (July 31, 1969), pp. 30-32.