ELLUL'S CONCEPT OF TECHNIQUE AND SOCIAL CHANGE

TECHNIQUE AND THE DYNAMICS OF SOCIAL CHANGE
IN THE POLITICAL THOUGHT OF JACQUES ELLUL

by

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ABSTRACT

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Ellul's conception of the technological society has specific implications for problems of democratic theory and the analysis of the forces of social change in the modern world. The technological order leads to standardization, a preoccupation with means that destroys the basis of ethics, and a tendency to use technical (i.e. scientific solutions) for all problems. Ellul does not explore the historical circumstances of the origin of the technological society. Nor does he examine possible alternative currents in modern thought which could be used in the formulation of a democratic theory which would incorporate planning in a different manner. His failure to distinguish between instrumentality, (as a capacity to plan, to innovate) and technique severely limits his theory. The thesis examines Ellul's thought in the context of democratic theory, the rational determination of priorities for scientific research, and the planning in an interdependent world.

RESUME

La conception de la société technologique de Jacques Ellul a
des implications spécifiques pour les questions de la théorie democratique
et pour l'analyse de la dynamique du changement social dans un monde
moderne. L'ordre technologique mène à la standardization, une préoccupation
avec des moyens qui détruit la base d'une philosophie morale et un tendance
à employer les solutions techniques (i.e. scientifiques) pour tous les
problèmes. Ellul n'explore pas les circonstances historiques de l'origine
de la societé technologique. Il n'examine pas non plus tous les courants
possibles alternatifs dans une pensée moderne qui pourraient être employés
la planification d'une manière différente. Il échoue à faire une distinction
entre l'instrumentalité, comme une capacité à planifier, à innover, et la
technique; ceci limite donc sérieusement sa théorie. Cette thèse examine
la pensée d'Ellul dans le contexte de la théorie democratique de la
determination des priorités pour la recherche scientifique, et de la
possibilité d'une théorie de planification politique dans un monde inter-
dépendent.

PREFACE

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TABLE OF CONTENTS

Page

CHAPTER I

INTRODUCTION

Ellul in Context

Jacques Ellul is a professor of law at the University of Bordeaux, a lay theologian and a sociologist. Since his work La Technique was translated into English and published as The Technological Society, he has attracted much attention in North America, but scant serious academic criticism.

Ellul's well-honed rhetorical works elaborated several themes and provoked strong responses. He has never presented his work as a scientific or systematic investigation of social problems and, accordingly, it would be dishonest to formulate a criticism of his work simply as being 'unscientific'. In the tradition of the nineteenth century essayist, he has produced a prolific collection of social commentary, popular theology, and sociological essay. Ellul has explicated from the ideology of the modern welfare state-technological society certain theses of social organization: (i) that the technological order leads inexorably to standardization; (ii) that it is impossible to discuss ethics in the method-conscious world of modern technique; (iii) that the notion of political solutions to contemporary problems is illusory; (iv) that the irrationalist responses of the counter-culture to institutionalized anomie offer no solution. Stung by insinuations that man's freedom was illusory, and Ellul's casual disdain for the fundamental suppositions of modernity, observers responded with strong reactions to his 'determinism'. One review in the Christian Science

Monitor (hardly a representative sample, but interesting nonetheless) stated:

> Just as post-war France established what we
> call the theatre of the absurd, Professor Ellul
> may now claim to have produced the sociology of
> the absurd with the continuing emphasis on man's
> bewilderment, his helplessness, his utter futility
> in the world of technique.[1]

A more substantive criticism was made by W. Runciman in the New

Statesman:

> The Technological Society ... (is) one of
> those wordy agglomerations of social philosophy
> and historical sociology which start with one
> interesting preoccupation and then work it to
> death. In this case, the idea is the progressive
> dominance in our culture of 'technique' in its widest
> and now metaphysical sense. Ellul's chilly vision
> of our mechanistic, over-leisured and disenchanted
> future will only convince those who feel as he does
> already: 'the stains of human passion will be lost
> amid the chromium gleam'. There is always something
> to be learned from an impassioned and scholarly over-
> emphasis on the harm that science and rationalism have
> done to us all.[2]

Not all reviews were negative. Some were openly appreciative
of the warning contained in his work. Yet in most previews there is a
distinct element of defensiveness. Ellul has touched a very sensitive doubt
in the modern intellectual mind. Does modern man have the capacity to
control his fate in a complex technological society? A notable exception
to this defensiveness is George Lichtheim's review in the New York Review
of Books.[3]

Lichtheim's strongest remarks are reserved for the style of Ellul's
work:

> What is (the reader) to make of M. Ellul who
> (a) provides no references and no factual information,
> (b) takes it for granted that his readers have absorbed
> the numerous subjects he mentions in passing, and the
> few authors to whom he casually refers, and (c) develops
> his arguments by simple assertions?[4]

In the intellectual history of post-war France, Ellul is far from being the most outstanding social philosopher. His significance cannot meaningfully be ranked with Sartre, Lefebvre, Gurvitch, Levi-Strauss or Camus in French letters. It is an inadequate response to the questions Ellul raises to attack the deficiencies of his style. Lichtheim points out that French sociological thinking accords greater prestige for a separate tradition that can be described as social philosophy than does the English-language tradition.[5] Lichtheim's distaste for Ellul leads to a distinct unwillingness to concede Ellul any significant place in modern French social thought:

> ...M. Ellul is basically interested in what he calls the 'characterology of technique', by which he means its essence. I only wish I had more confidence in his ability to get to the bottom of this or any other matter. In a way it ought to be easy for Him, since he is no lonely pioneer. In 1950, four years before his work appeared (under the title La Technique ou l'enjeu du siècle), Professor Friedmann, in Où va le travail humain?, had already struck the keynote of all subsequent literature on this topic by writing: 'Notre monde est technique, c'est à dire scientifique'. With the best will I am unable to discover wherein M. Ellul's innovation is supposed to lie. It is true that he has a distinctive philosophy: he is hostile to the modern universe created by scientific technology. But the claim that his work advances our understanding of this universe seems difficult to substantiate. Much of his writing is mere rhetoric. '...technique has taken over the whole of civilization'. One might equally well say: 'Commerce has taken over the whole of civilization.' Indeed, not so long ago (a century to be exact), M. Ellul's predecessors filled entire volumes with this kind of stuff.

Lichtheim's review goes on to predict that Ellul's work won't be discussed in twenty years. Yet, it is important to note that Ellul is worth criticizing in a more substantial way. Ellul's works have struck a responsive chord in North American society. One of the largest single impediments to social change in post-industrial society is the overwhelming sense of drift that characterizes contemporary history. Ellul's work forms

the clearest presentation of this perspective, and, like Filmer and Duhring, is of considerable importance. Anomic drift is a significant cultural attitude in modern society. 'Alienation' has been misused and overused as an expression to the extent that it is no longer an appropriate description of what is essentially an anti-political frame of mind. The uncommitted are uncommitted because there is an absence of a belief in personal efficacy. Action is insignificant because we are prisoners of certain determinisms - Marxian, Freudian, Darwinian. The modern experience is qualitatively different from previous experiences of fatalism because of the relationship between the psychology of fatalism and the prevalent social mythology. Providence, determined through faith, was an attitude-towards-the-world which integrated man into a cosmic schema. Fatalism within such a framework was de-alienating, or, to be more precise, existed as a conceptual category before alienation. The fatalism and inefficacy of the modern world are alienating because they are contradictions of the cultural myth of freedom on which meaning is supposedly based.

Ellul is important to study and to criticize because the sum total of his work presents a powerful challenge to the patterns of organization inherent in modern technological society. His polemics have focused on a set of problems and articulated an attitude which require analysis. The modern world may be a place of routinized worship, bureaucratized charity, and commercialized sexuality, yet there do exist some effective remedies. Ellul's insights are important and challenging; to respond to them the political theorist must explore the deficiencies and the merits of his total work. Ellul's major value lies in the relentless moral inquiry which is essential to the replenishing of the sacred dimension to experience. Ellul's sociological criticisms of modern society add a refreshing perspective to the abstract analyses of the Frankfurt School. (Even William Leiss,

whose work <u>The Domination of Nature</u> will be quoted favorably throughout this text, must share this criticism). Additionally, as an understanding of the interface between technology and society, Ellul's work is laudably more subtle and complex than most English-language writing.[6]

Ellul must be given credit for formulating a wide range of questions with immediate practical importance. His wide-ranging investigations are demanding and are rooted in real concerns.[7] <u>The Technological Society</u> details how all aspects of contemporary life have been subsumed by technique. <u>The Political Illusion</u>[8] raises the question of the parameters and potentialities of politics in a modern world where images and distortions abound.[9] <u>Propaganda</u> questions the nature of public opinion in an age where we suffer from information pollution and the absence of a capacity to examine events critically. These three works taken jointly force an examination of the fundamental difficulties of a modern political theory:

(i) What are the limits of political action? What spheres of activity should be protected against the ersartz politization that Ellul laments? In <u>The Human Condition</u>, Hannah Arendt laments the death of the public in the modern world; Ellul, in <u>The Political Illusion</u> sees modernity as destroying the private. How is this apparent contradiction useful to the development of a contemporary political theory?

(ii) What is the capacity of modern theory to reconcile economic and social planning with a meaningful democracy. Does planning automatically mean the presence of a dominating technique, restructuring social reality according to some autonomously-derived blueprint?

(iii) How have the developments in modern communications effected the formation of public opinion? What are the consequences of these trends for the institutions of classical democratic theory?

Ultimately, Ellul puts forward an articulate challenge to contemporary democratic theory. His work, as Lichtheim points out, is itself atheoretical, relying too often on polemics, and unsupported rhetoric. Yet,

Ellul has succeeded in posing these questions and they merit consideration.

The task of political theory is to provide a moral basis for effective action in the real world. Many arduous problems of theory are resolved in the activities of millions of people in their daily accomplishments. And there are millions of failures. Does this mean that the CBC cameraman filming the disruption of a highway-construction project is satisfying the requirements of good political theory? The limits of cultural theories of politics are clearly illustrated by this example. Sound theory must probe far beyond subjective limitations. Institutions are a function of political economy as well as political culture. The laudable attempt of some phenomenological strands of modern political thought to focus on the political aspects of day-to-day life-worlds has created a new set of limitations for investigation. They have denied the abstraction of grand theory with the abstractness of a theory that denies the existence of any objective reality. The successful synthesis of the personal (the culturally-influenced) and the totality (most obviously, economics) has rarely been achieved in political thought. To focus excessively on the personal is to fall into the radical subjectivist trap of self-validation. To focus excessively on the totality (of a given structural unit) is to make reality abstract and therefore deterministic. Political theory should not be allowed to become a plaything for policy-makers. Because it is theory, it must be permitted a certain luxury of purity - but this cannot justify abstract utopianism. It is a theoretical task to understand why certain ideas led to ineffective actions, why, for example, the Weimar Social Democrats failed. Was it because of concrete political mistakes or irreversible structurally-located trends? Alternatively, it must seek to explain why certain actions succeeded, why, for example, the Spadina Expressway was stopped. Was it because of random opportunism, or a

brilliantly-effective interest group action? Similarly, ethics requires

an understanding beyond the immediate subjectivity (intentionality) of an

individual's actions. There must also be an understanding of the social

forces operating around the individual at the given moment he chooses to

act.[10]

Why does Ellul make a valid subject for political theory given

these considerations? Within the context of his continuing explication of

the notion of 'technique', four central propositions emerge. Technique

and technology are not, according to Ellul (see also below 'From technology

to technique') synonymous. He writes[11] :

> Whenever we see the word technology or technique,
> we automatically think of machines. Indeed, we
> commonly think of our world as a world of machines.
> This notion - which is in fact an error - is found in
> the works of Oldham and Pierre Ducasse. It arises from
> the fact that the machine is the most obvious, massive
> and impressive example of technique, and historically
> the first.

Ellul's characterology of technique presents it as an autonomous

force which has an impact on society rather than as a related one which

interacts with it:[12]

> The self-augmentation of technique also has two
> aspects. At the present time, technique has arrived
> at such a point in its evolution that it is being
> transformed and is progressing almost without decisive
> intervention by men. Modern men are so enthusiastic
> about technique, so assured of its superiority, so
> immersed in the technical milieu, that without exception
> they are oriented toward technical progress. They all
> work at it, and in every profession or trade everyone
> seeks to introduce technical improvement. Essentially,
> technique progresses as a result of this common effort.
> Technical progress and common human effort come to the
> same thing.

This thesis is the kernal of Ellul's insights into the modern world.

Formally stated, they are:

(i) Because of the autonomy and the dominance of technique, the possible inexorably becomes the necessary. Science progresses in a linear fashion and technical solutions will be favoured for social problems.

(ii) Planning becomes illusory. Because man is an object of these technical forces, he cannot calculate the spinoff consequences from each new technical intervention (plan or scientific discovery).

(iii) All of modern society is politized. Because organization succumbs to technique, and the individual is integrated into mass society by means of propaganda, there is no democracy.

(iv) Technique has resulted in the centralization of the modern state. This is harmful to cultural pluralism and individual freedom, and, accordingly is undesirable. However, it is also inevitable.

Ellul articulately challenges modern democratic theory. The incompatibility of contemporary notions of planning with contemporary notions of democracy is a constant within his work. Secondly, an interest in Ellul is justified by his ability to see the limitations of his own 'policy recommendations'. Accordingly, the tension between 'micro' and 'macro' analysis is dramatically revealed as is the deficiency of any theory not rooted solidly in both culture and economics. In elaborating on this, I hope to make some small contribution to the new directions political theory must follow after breaking through this hurdle. Thirdly, the popularity of an Ellul-type analysis is paralleled by a retreat from institutional activity by a significant number of political actors. This contains grave implications and the reasoning which leads to such a praxis must be at least seriously debated.

Ellul's social philosophy has become the starting point for a large number of examinations of modern technological society. Ellul's critique of modern society contains a very important examination of 'commonplaces', socially-defined truisms which are acted upon uncritically.

Ironically, his work is vulnerable to many of the same criticisms. He becomes known as a latter-day Luddite or a Protestant fundamentalist with a rigorous system of ethics. Political alignments are such today that he can be seen both as a guru of the counter-culture and as one of its most acid-tongued conservative critics. He is seen as a conservative, and calls himself a socialist. Above all, he is the 'philosopher of technique', who sees the forces of technique producing a modern world characterized by anomic drift. Despite Ellul's protestations, technique quickly becomes technology in the readers' common mind, and Ellul does indeed become a latter-day Luddite. Some observers have blamed the translation of La Technique into The Technological Society for this. This is inaccurate because the confusion in Ellul's 'characterology of technique' is much deeper than a simple flaw in translation. Accordingly, his name is invoked in wide-ranging series of arguments about technocracy, alienation, ecology and the related issues that are the cornerstone of political debate in the technological society.

Ellul's work contains some brilliant insights into the functioning of modern 'technostatist politics'. Ellul's insights are, however, representative of a wider tendency to reject the modern world as irremediably evil. The rejection by the disappointed utopians is based primarily on a conceptual confusion between technique and instrumental reason.

Characteristics of the Technological Order

Ellul's definition of technique is contained in a note to the reader at the beginning of The Technological Society (p. xxv):

> In our technological society, technique is the
> totality of methods rationally arrived at and having
> absolute efficiency (for a given stage of development)
> in every field of human activity. Its characteristics
> are new; the technique of the present has no common
> measure with that of the past.

Modern technique, according to Ellul, has seven characteristics:

(i) <u>rationality</u> (p. 79) Best exemplified in systematization, division of labour, creation of standards, production norms, and the like, involves two distinct phases: first, the use of 'discourse' in every operation; this excludes spontaneity and personal creativity. Second, there is a reduction of method to its logical dimension alone.

(ii) <u>artificiality</u> (p. 79) Technique is opposed to nature. Art, artifice, artificial: technique as art is the creation of an artificial system. This is not a matter of opinion. The means man has at his disposal as a function of technique are artificial means.

(iii) <u>technical automatism</u> (p. 79) When everything has been measured and calculated mathematically so that the method which has been decided upon is satisfactory from the rational point of view, and when, from the practical point of view, the method is manifestly the most efficient of all those hitherto employed or those in competition with it, then the technical movement becomes self-directing.

(iv) <u>self-augmentation</u> (p. 85) At the present time, technique has arrived at such a point in its evolution that it is being transformed and is progressing almost without decisive intervention by man... Technical progress and common human effort come to the same thing.

(v) <u>monism</u> (p. 95) The technical phenomenon, embracing all the separate techniques, forms a whole. This monism of technique was already obvious to us when we determined, on the basis of the evidence, that the technical phenomenon presents, everywhere and essentially the same characteristics.

(vi) <u>technical universalism</u> (p. 116) From the geographical point of view, it is easy to see that technique is constantly gaining ground, country by country, and that its area of action is the whole world. In all countries, whatever their degree of 'civilisation', there is a tendency to apply the same technical procedures. (p. 125) Technique cannot be otherwise than totalitarian. It can be truly efficient only if it absorbs an enormous number of phenomena and brings into play the maximum of data. In order to coordinate and exploit synthetically, technique must be brought to bear on the great masses in every area.

(vii) _autonomy_ (p. 133) The primary aspect of
autonomy is perfectly expressed by Frederick Winslow
Taylor, a leading technician. He takes, as his point
of departure, the view that the industrial plant is
a whole in itself, a 'closed organism', an end in
itself.

This explication of Ellul's characterology of technique leads
to three broad areas of investigation: standardization, universalization
and autonomy. Standardization raises the question of the development of
'integrative propaganda' and mass society. Universalization points to
'the totalitarianism of technique' and implies the impossibility of a
democratically-based resistence to the forces of modern technique in an
inevitably-centralized state. Autonomy raises questions about the develop-
ment of science and the proliferation of new technologies in the modern
world: can techniques be subjected to plans? does science 'progress' by
self-augmentation, inexorably turning the possible into the necessary?

The radical indictment of modern society put forward by Ellul in
The Technological Society prompted the denunciations of his pessimistic work
which were referred to earlier. In the concluding section of his more
recent essay 'The Technological Order', [13] Ellul elaborates a blueprint for
the remedying of the modern condition. It is interesting to note that
these proposals, which are themselves relatively mild (compared to the
severe tone of his other work) address the social framework in which
technology occurs. They are primarily concerned with cultural remedies
(changes in consciousness) without any attempt to analyse the relationship
between consciousness and the social forces which influence technology.
The political formula suggests five preconditions for the reduction of [14]
the dominance of technique:

(1) a correct diagnosis of the extent to which
technique permeates our perspective on the world;

(ii) the ruthless destruction of the 'myth' of Technique, i.e., the whole ideological construction and the tendency to consider technology something possessing sacred character ... Men must be convinced that technical progress is not humanity's supreme adventure, but a commonplace fabrication of certain objects which scarcely merit enthusiastic delirium even when they happen to be Sputniks.

(iii) ...it is necessary to teach man in his employment of Techniques a certain detachment, an independence with respect to them – and humor. It is naturally very difficult to accomplish this; and above all to get him to give up his illusions, not pretending to be completely free with respect to automobiles, television sets, or jobs, when the plain fact is that he is totally enslaved to them.

(iv) a return to philosophy in the sense of a philosophy which allows for a successful mediation between man and the world: "Authentic philosophy of real meaning would bring us to precisely that possibility of mediation between man and the technical phenomenon without which any legitimate attitude is inconceivable. But for such a philosophy to exist would mean that philosophy would first have to cease to be a purely academic technique with a hermetically sealed vocabulary, to become again the property of every man who thinks while he is engaged in the business of being alive."

(v) the creation of a dialogue between the technicians and those who are enlightened as to the limits of technique: "It seems to me that this dialogue can only come about by making contact which will represent a permanent and basic confrontation between technique's pretensions to resolve all human problems and the human will to escape technical determinism."

What is the nature of the technological order? It is characterized by a sense of the divorce of action and purpose. One reaction to the era of linear progress and the technocratic custody of history has been that politics should be purely representational, devoid of manipulation (and instrumentality and a teleological dimension). In many senses, this is a response of sensitive people to a world where it is impossible to discover an effective personal Archimedean point. Another response to the scale of the technological order is, of course, anomic violence.

15

In a clear synopsis of Arendt's view of modern violence, a reviewer of
her essay <u>On Violence</u> [16] offers the following insight into the operation
of the technological order. [17]

> (Dominion over man) is today exercised by a
> bureaucracy or the rule of an intricate system of
> bureaucracy in which no man, neither one nor the
> best, neither the few nor the many, can be held respon-
> sible, and which properly could be called rule by
> Nobody. If we identify tyranny as government that is
> not held to give an account of itself, rule by Nobody
> is clearly the most tyrannical of all, since there is
> no one left who could even be asked to answer for what
> is being done. It is this state of affairs, making it
> impossible to localise responsibility and to identify
> the enemy, that is among the most potent causes of the
> current worldwide rebellious unrest, its chaotic nature
> and its dangerous tendency to get out of control and
> to run amuck.

Ellul's tendency is to accept the Kafkaesque inefficacy of modern
man as a given. [18] The roots of this situation lie, for Ellul, in an
elastic concept of 'technique' which ultimately is extended to include any
attempt by groups of men to organize their instrumentality. Technological
society is qualitatively different from its antecedents because of the
apparent rapidity of technological changes and the consequent difficulty
in adapting to them. The incalculable number of spin-off consequences from
each new innovation reinforce the notion that events are unforeseeable and
consequently, beyond human control. It is difficult to localise responsibility
for the role of United Fruit in Nicaraguan politics. The corporate economy
and the scale of the social order reduce the sense of individual efficacy
to its minimum. Yet fame can come to any obscure non-person who can commit
a sordid enough crime; and 'efficacy' can result from a prankster's phoning
a bomb-threat which forces the United State Navy to protect an ocean liner.
There are predominantly two responses to the technological malaise: the
first is a profound search for efficacy, for a simplification of the
relationship between action and purpose. (This involves a scientific and

theoretical understanding of historical forces). The second is the development of a capacity to rationalize the non-existence of efficacy and to surrender the notion of instrumental action. (This suggests that it is the myth of instrumental action which created the problem in the first place.)

Within this second approach to the technological order, achievement, design, praxis and instrumentality become illusory. Democracy is restricted to the self-expression of a religious festival; politics is purely representational. Ellul's response is clearly of this category.

Certainly, it is true that in abandoning linear progress, the 'post-modern' theorist must abandon the technocrat's quest for a predictable policy with calculable consequences. The question that emerges from a discussion of Ellul's analysis of the technological order is whether that makes an instrumental politics impossible. It also requires that our notion of a social science be examined further: the technocratic notion of science has at the heart a quest for perfect calculability and instrumental transparency. To the extent that this quest has become standard operating procedure for the social sciences, they remain deservedly discredited.

If 'means' and 'ends' are to be used as categories in the discussion of political ethics, there must be an assumption about the possibility of assigning causality to events and actions. Similarly in policy-making, expectations of 'foolproof' or 'certain' techniques are technocratic illusions. They are doomed either to resounding failure or to totalitarianism, depending on the context. Since there is no attempt to distinguish between instrumental reason and technique in Ellul's analysis, Ellul's remedy consists of consciously non-instrumental suggestions. Politics will become life, once the individual admits the illusion of political efficacy.

Presumably (although this is not made clear) the need for efficacy (if Ellul's theory of human motivation concedes such a thing) will be sublimated into art or craftsmanship. Presumably, also, such a need did not exist in the organic community of (e.g.) ancient Athens. Since Ellul's arguments are predicated on precisely the difference in conceptual frameworks between ancients and moderns, his suggestions become blandly that we cease to be what we have become.[21]   Since Ellul makes no attempt to examine the relationship between conceptual frameworks and social conditions, his remedy is based on non-instrumental suggestions that attempt to alter consciousness alone. The ahistorical focus of his investigation of technique combined with an unclear understanding of human reason lead to these limitations.[22]   These methodological limitations to Ellul's work are worth noting for they consistently limit his analysis. It has been observed:[23]

> Does he really mean to suggest that primitive
> technical operations are irrational, instinctual,
> or undertaken independently of consciousness? At
> times, in fact, this is exactly what he asserts.
> Yet surely it would be more correct to say that
> primitive technical operations involve and represent
> a different kind of consciousness and a different
> type of rationality. Ellul's appeal to the dominance
> of consciousness and rationality in the modern world
> recalls the Romantic critique of reason, a critique
> which failed to recognize that Enlightenment rationality
> was not the only type of reason there is.

Ellul's thesis is unclear about the concept of technological monism. Can it be said that there is a single style of technique, any more than that there is a single type of reason? Ellul recognizes this difficulty in making a dubious distinction between the 'irrational' technique of the primitives and the 'rational' techniques of the modern. The evolution of a planetary culture is seen as a function of the homogenizing application of modern technology, especially communications technology. Ellul never explores the possibility that there is an alternative to the theory of a single

universal technique, inexorably activating a series of technological
innovations and the corresponding consciousness. It is dubious that a
pre-industrial society would evolve towards an exact simulation of electric
can-openers and digital computers without some direct external influence.
This leads to a series of questions about the usefulness of Ellul's concept
of technique in explaining cultural changes; these will be considered in
the concluding section.

What explains the pattern of industrialization in different
cultures? Ellul is willing to leave the question a 'mystery', yet that is
hardly satisfactory. Certainly, it is impossible to adequately suggest an
anthropological theory to explain the origins of industrialization without
an immense amount of research into demographic, economic, and cultural
factors. The logic of his proof rests on such arguments as the following:
technique is universal because both democratic and totalitarian police
forces are concerned with efficiency and accumulate data. [24] Yet the same
observation can be stated as follows: there are certain structural
similarities between the processes by which laws are enforced in state A
and state B. Such a statement is not significantly startling nor controver-
sial, although there may be strong difference of opinion with regard to
its importance. There is a continual tension in Ellul's writings between
the necessity of arguing the autonomy (the neutrality) of technique and
the importance of the social frameworks in which technique operates.
Philosophically, he is concerned with what Mitcham and Mackay call a
'metaphysics of relations'. Thus he can state in 'The Technological
Revolution and Its Moral and Political Problems' certain meliorative
proposals which amend the framework in which modern technology is applied.
Whether technique remains autonomous only by will of social decision-
makers to use it as if it were so is, of course, unclear. Mitcham and

25
Mackay observe:

>   Now although this theory rightly places the burden
> for altering technological tyranny on a change in
> consciousness, the emphasis is vaguely at odds with
> Ellul's concepts of the origins of modern technology,
> in which changes in man's conceptual attitude towards
> the world were played down in favour of sociological
> factors. And contrary to expectations generated by his
> analysis of the necessity with which machines remake the
> social environment in their own image, he also thinks
> that a revitalized Christian consciousness could leave
> the technical infrastructure in tact. The apparent
> contradiction between Ellul's radical rhetoric about the
> evils of technological tyranny and his concrete proposals
> for action can only be explained through an appeal to the
> metaphysics of relations. Since a thing has being through
> its relations rather than relations subsisting through
> things, give a thing a new set of relations, enclose it
> in a new consciousness and you have a new thing.

Mitcham and Mackay's analysis of Ellul's theory on the origins

of technology and its implications require two comments: (i) Ellul's

argument is not as clear as they imply it is. His emphasis of 'sociological'

factors rather than 'man's conceptual attitude' is not explored as a coherent

theory of the sociology of science. There is no mention, for example, 26

of Braudel or Foucault with their corresponding material and ideational

theories of the origins of modernity. The uncertainty as to this point is

hardly unique to Ellul. Nevertheless, it must be explicated if Ellul's

works are to be built on. (ii) It is unclear from his theological writings 27

the extent to which Ellul would accept a 'metaphysics of relations'. Grace

is grace, and it is contained within the individual. However, that is

beyond the competence of this investigation.

Ellul's confusion with regard to the origins of modernity is
28
revealed in his discussion of the sixteenth century:

>   Society was at a crossroads. More and more the
> need was felt to create new means; even the structure
> these must take was clearly perceived. But the frame-
> works of society, the ideas in currency, the intellectual
> positions of the day were not favorable to their

realization. It was necessary to employ technical
means in a framework foreign to them; these
techniques were powerless to force a decision or
to eliminate outmoded means. They ran up against
the profound humanism, issue of Renaissance
humanism, which still haunted the seventeenth
century - it believed not only in knowledge and
respect for the human being but in the genuine
supremacy of man over means. This humanism,
bound up with the idea of universalism, did not allow
technique to grow. Man refused to conform to any
uniform law, even when it operated for their own
good.

This passage attaches great import to 'cultural attitude'.

However, its implications are even more tantalizing. Ellul is aware of

the inadequacy of a cultural explanation; similarly to view the origins of

modern technology simply as being functions of certain material conditions

is inadequate. Unfortunately, Ellul fails to explore this fertile paradox.²⁹

Technique and Instrumental Reason

Ellul makes no effort to distinguish between productive activity,

technical activity, and instrumental activity. Nor does he examine the

psychological or anthropological origins of instrumental activity. In

explaining this omission, Ellul doesn't appear concerned that his thesis

is in any way jeopardized:

Technical activity is the most primitive
activity of man. There is the technique of
hunting, of fishing, of food gathering; and later
of weapons, clothing and building. And here we
face a mystery. What is the origin of this activity?
It is a phenomenon which admits of no complete
explanation. By patient research, one finds areas
of imitation, transitions from one technical form
to another, examples of penetration. But at the core
there is a closed area - the phenomenon of invention.

It can be shown that technique is absorbed into
man's psychology and depends upon that psychology and
upon what has been called technical motivation. But
we have no explanation of how an activity which once did
not exist came to be.

> How did mean come to domesticate animals, to
> choose certain plants to cultivate? The motivating
> force, we are told, was religious, and the first plants
> were cultivated with some magical end in mind. This is
> likely, but how was the selection made? And how did
> it happen that the majority of these plants were edible?
> How did man come to refine metals and make bronze? Was it
> chance, as the legend of the discovery of Phoenician
> glass has it? This is obviously not the answer.
>
> One is left with an enigma; and there is some point
> in emphasizing that there is here the same mysterious
> quality as in the appearance of life itself.[30]

Ellul certainly cannot be faulted for his failure to answer the

question of the origin of cognitive activities. However, his failure to

elaborate on the difference between technique and instrumental reason leads

to a fundamental conceptual confusion. Is technique a description of

certain means of organizing scientific knowledge and applying it to

specific goals; the establishment of a technocracy? Or is technique any

mode of instrumental thought which attempts to apply knowledge in a

systematic manner? There are, of course, limits to the beneficial uses

of instrumental reason, but before these parameters can be mapped, a

definitional distinction between technique and instrumental reason must be

established. At no point does Ellul do this. Consequently, Ellul is

prepared to abandon man's claim to instrumental action; and his theory is

inherently limited in responding to the political problems of the technological

society. His failure to examine the motivational and intentional dimension

of political action produces a strikingly one-dimensional portrait of public

life. Basically, Ellul is accepting what Theodor Adorno has described as

the sense of 'inextricable fatality' permeating modern thinking and defining

it as the norm of human experience. Fears of social engineering, Stalinism,

technocratic management, and authoritarian manipulation have made modern

political theorists extremely conscious of the dilemma of acting-in-the-world

with an intention of achieving specific goals. Unfortunately, in Ellul,

this proper sensitivity is turned into a distrust of any attempt to be instrumental. It is impossible to extend at this point an analysis of the structural and ideological factors that account of this sense of fatality in the modern world.[31]

Illul's exclusion of the discussion of this question limits his capacity to understand the fatality which permeates the consciousness of the uncommitted modern. The evolution of a praxis for the post-industrial world requires the transformation of the concept of instrumental reason, not its elimination. Illul's seductive clarion-call to 'life instead of action' spells neither the return to ecological rhythm nor cosmic harmony, but the surrender of the human ability to negate, to initiate, and perhaps even to survive.

At one level, technique is reduced to meaning simply the preoccupation with methodology, with means, with process. Illul is concerned with the denial of spontaneity in the standardization of procedures and the codification of rules. Such an interpretation contains some valuable insights. In The Theological foundations of Law, Illul discusses a specific aspect of technique:

> When natural law is rejected, juridical
> technique is at the disposal of whoever wishes
> to take advantage of it. This technical stage
> of law may last for a long time, thanks to a
> sort of social crystallization, as was the case
> in the Byzantine Empire. Conversely, it may be
> utilised by any kind of power in history. When
> this happens, a definite purpose is inscribed
> to this intrinsically neutral technique. The
> technique is manipulated according to new and
> arbitrary criteria, substituted for the ideas of
> justice and natural law. This is precisely what
> we noticed... in the case of Nazism and Communism.
> This development becomes possible because natural
> law has disappeared and a mere technique has taken
> the place of the idea of justice. Agglomeration
> of rules and regulations has no longer anything to
> do with law. It is meant to favour the power of

the strong who, in turn, justifies his position
by endowing the juridical system with new criteria
of law. [32]

This critique of juridical technique and legal positivism lends

substance to the argument that Ellul is concerned with eradicating the

value-free uncritical tendencies of the modern world. However, his later

work founders on his failure to develop his distinction between technique

and the means of achieving an end. Ellul's theological writings reveal

the gradual presentation of a philosophy that can only be termed anti-

instrumental. [33]

In The Presence of the Kingdom, Ellul writes:

> The whole object of ethics is not to attain
> an end (and we know very well that for a genuine
> Christian ethic there is no such thing as a
> striving for holiness), but to manifest the gift
> which has been given us, the gift of grace and of
> peace, of love and the Holy Spirit, that is, the
> very end pursued by God and miraculously present
> within us. Henceforth our human idea of means is
> absolutely overturned; its root of pride and of
> power has been cut away. The means is no longer
> called to 'achieve' anything. It is delivered
> from its uncertainty about the way to follow, and
> the success to be expected. We can easily give up
> the obsession with means, from which our time is
> suffering, and in the Church, we must learn that
> it is not our possibilities which control our action,
> but it is God's end present within us. [34]

In this passage, the assumptions of Ellul's investigation are

revealed. Man, it follows, must not want to be free. Those who have

interpreted The Technological Society as a lament for man's imprisonment

within a social structure infused with technique are missing the point. [35]

The main problem, according to Ellul, is that technique has eliminated God.

In defending himself against charges of excessive individualism (elaborated

below) Ellul responds that he is not thinking of the individual but of God.

Technique and Abundance

Even the most extreme critics of modernity must concede that technological society has generated material abundance such that except for political reasons of surplus-accumulation and inadequate distribution, the elimination of poverty would be possible. Modernity may be characterized by some as the experience of an absence of integrated lifestyles and complementary relationships between work and leisure, tradition and innovation, contemplation and planning. Few societies have achieved harmonious balance between these activities. Ellul fails to ask to what extent the negative (fragmenting) forces are endemic to the positive aspects of modernity (the potential for material abundance). He remains satisfied with a set of emotionally-based proposals that suggest that an organic community will grow to replace the structures that have survived due to their service to instrumental reason. There are two possible responses to this argument: (i) The characterization of the traditional is hopelessly naive, positive and romantic. (ii) Even if the characterization were accurate, we cannot return to a previous style of life. Proposals based on these nostalgic pinings are a waste of time.

In understanding the relationship between technique and abundance, the political theorist must ask two questions: (i) does the elimination of scarcity in a subsistence-material sense necessitate the design of new social structures and institutions? (ii) do the characteristics of modern technology bring about the elimination of scarcity only at the cost of democratic practices. Although both questions form the cornerstone of the third section of this thesis, it is important to establish some preliminary observations.

The concept of scarcity is difficult to employ precisely. It is perhaps useful to distinguish between scarcity and deprivation. Barrington Moore's idea that misery is a universal concept with a single meaning, whereas happiness is diverse is also useful in such a discussion. This distinction puts excessive emphasis on industrialization though. There are societies of pre-industrial abundance (a category describing many Polynesian societies before being integrated into the world economic-system) and pre-industrial poverty (the sub-Saharan African nations which remain poor for demographic reasons and remain essentially unintegrated in the world economic-system).[36] Consequently, there is an important analytical distinction between pre-industrial scarcity (demographically and geo-graphically-determined, even though it may be reinforced by feudal and early capitalist activities, as in Ethiopia) and the post-industrial scarcity existing in the cities of Lima and New York. An effective exploration of the relationship between culture and social structure would pose several questions. The most important of these would be: how does the relationship between the psychology of resignation (fatalism) and the ideology of the elites (the groups that benefit from the overall social situation) compare in (e.g.) Chad and Peru. A comparison of these cognitive-systems would be an exercise in structural analysis which would be immensely valuable for an understanding of social change.

It is a telling criticism of Ellul that the question of the alleviation of misery does not seem to interest him in discussing technology, he does not mention longer life-spans or the other welfareist advances of the technological society. Ellul repeatedly spurns the Luddite image which seems to follow logically from his analysis by referring to his distinction between technique and technology. He states at some points that what must be changed is the framework in which technology and society

relate. But Ellul's distinctions between levels of society is never clear: scarcity does not seem to be a category that can be used in classifying groups. Early technology is distinguished from technique because the latter excludes the immediacy and the spontaneity that can be found in the former. Ellul writes that:[38]

> The activity of sustaining social relations and
> human contacts predominated over the technical scheme
> of things and the obligation to work, which were
> secondary causes.

Modern society is hallmarked by the failure of the individual to lead a contemplative life. Ellul continues:[39]

> The constraints to which (pre-modern man)
> was subject did not function decisively because
> they were of a non-technical nature and could be
> broken through. In an active civilization, even
> one with a fairly good technical development, the
> individual could always break away and lead, say,
> a mystical and contemplative life. The fact that
> techniques and man were more or less on the same
> level permitted the individual to repudiate
> techniques and get along without them.

Such choice would be a revelation to most peasants working in a pre-industrial world. The discussion of hermits, vagabonds, ascetics and mystics as the criteria to assess a society's freedom is obviously inadequate. Ellul's failure to examine the relationship between technique and abundance and the distribution of abundance is a notable flaw in his analysis. Having briefly discussed these preliminary aspects in Ellul's work, it is now possible to turn to the major themes which he raises, and a discussion of their merits and limitations.

FOOTNOTES

[1] Beichman, Arnold, The Christian Science Monitor, Sept. 24, 1964, p. 7.

[2] Runciman, W.G., 'Impending Plenty', The New Statesman, April 23, 1965, p. 654.

[3] Lichtheim, 'A Nous la Liberté', New York Review of Books, November 19, 1964; a review which also considered Ou va le travail humain? by George Friedmann; Machinisme et Bien-Etre by Jean Fourastie; Introduction à la Modernité by Henri Lefebvre; The French Bureaucratic System by Michel Crozier; La nouvelle classe ouvrière by Serge Mallet.

[4] Ibid., p. 22.

[5] George Lichtheim discusses in a parenthetical remark the importance of George Gurvitch, an importance which he notes has not been followed up in the Anglo-American social sciences. Since he wrote, Paul Bosserman has written an excellent study of Gurvitch entitled Dialectical Sociology: an analysis of the sociology of George Gurvitch, (Boston, P. Sargent, 1968). This, plus Gurvitch's work on the sociology of law and the sociology of knowledge, form a substantial part of the critique of Ellul that I will attempt to develop in the concluding section.

[6] See, for example, the journal Technology and Culture, which although primarily concerned with the history of technology, also deals in theoretical work. See also the publications of the Harvard Program on Technology and Society, specifically Emmanuel Mesthene, Technological Change: its impact on man and society, (Cambridge, Mass., Harvard University Press, 1970). A refreshing exception to this is Victor Ferkiss' Technological Man: the myth and the reality, (New York, Braziller, 1968).

[7] Ellul, Jacques, The Technological Society, Vintage Books, New York, 1964.

[8] _____, The Political Illusion, Vintage Books, New York, 1967.

[9] _____, Propaganda, Vintage Books, New York, 1973.

[10] In overcoming the elitism inherent to theory (subsistence farmers cannot be expected to formulate a critique of domination, by the very nature of their cognitive-systems. The egalitarianism of Gurvitch's method as opposed to, say, Habermas' recommends it to political theorists. However, this cannot be explored here), the individual theorist is just beginning to explore the medium of film. At the risk of calling anything that discusses life political theory. Marcel Ophuls' film Le Chagrin et

la Pitié must be discussed. It provides a depth study of the Nazi
occupation of France. It explores motivations, behaviour and ideology
at all levels of French society, and, as such, is an outstanding example
of political analysis. However, by explicating certain features of the
role of social forces and individual activities under stress, it becomes
a piece of normative social theory. Whether or not such a use of film
will qualitatively change the nature and role of political theory is of no
slight importance, but that too must be reserved for consideration at
another time.

[11] The Technological Society, op. cit., p. 3.

[12] Ibid., p. 85.

[13] 'The Technological Order' in Stover (ed.) The Technological Order,
Proceedings of the Encyclopedia Britannica Conference on the Technological
Order, Detroit, Wayne State University Press, 1963.

[14] The Technological Society, op. cit., p. 25-28.

[15] The correlation between violence and a restorative sense of
personal efficacy is clearly illustrated in Franz Fanon's Wretched of the
Earth, New York, Grove Press, 1968.

[16] Arendt, Hannah, On Violence, New York, Harcourt, Brace and
World, 1969.

[17] Review of On Violence by Fred J. Cook, The Nation, April 6,
1970, p. 606.

[18] Kafka, in his utopian moments, saw the cause of the malaise
of modernity in the scale of the social order and consequently thought
that the malaise could be rectified through decentralization.

[19] Totalitarianism in the sense in which the word is most
commonly used in discussing Ellul. The totalitarian political mentality
is essentially a radical attempt at simplifying a complex situation. When
dissensus becomes unmanageable, or immanent dissensus undesirable, a ruling
elite through terror and structured, hierarchical organization imposes a
simple Eastonian model on the society. Thus, when confronted with the
failure of traditional planning techniques, the elite turns to more stringent
measures. If econometric models cannot control inflation, then the society
must be simplified.

[20] See Jacques Ellul 'Between Chaos and Paralysis', Christian
Century, June 5, 1968, for an elaboration of the key values in a new order.

[21] The new characteristics of technique are elaborated by Ellul
(p. 79 of The Technological Society), where he writes:

'In technique, whatever its aspect or the domain in which
it is applied, a rational process is present which tends to bring mechanics
to bear on all that is spontaneous or irrational. This rationality, best

exemplified in systematization, division of labour, creation of standards, production norms, and the like, involves two distinct phases: first the use of "discourse" in every operation; this excludes spontaneity and personal creativity. Second, there is a reduction of method to its logical dimension alone. Every intervention of technique is, in effect, a reduction of facts, forces, phenomena, means and instruments to the schema of logic.'

Ellul continues by presenting artificiality as another characteristic of modern technique. Artificiality as a concept becomes extremely difficult to define. Is an SST artificial? It follows certain design-phenomena which are rooted in nature. Is a man-made computer natural? The debate is circular and of limited conceptual value.

Ellul's preceeding points are of considerably more interest. The existence of standardized procedures, denigrating spontaneity and creative morality is unique to modernity. However, the existence of irrationalist counter-forces is also a unique ingredient of the modern condition which Ellul excludes from consideration. What does it mean to oppose standardization, codification? Common law is based on the accumulation of precedents (at least according to a legal idealist interpretation of what occurs). Since Thomas Kuhn's Structure of Scientific Revolutions, (Chicago, University of Chicago Press, 1962), it has been current to observe that scientific progress is not made by the accumulation of immense amounts of raw data, but that innovational paradigms creatively respond to new social conditions. (See Leslie Sklair, Sociology of Progress, London, Routledge and K. Paul, 1970). Critical thinking must negate and initiate. But should we reject any type of systemization? It sounds desirable in everyday language-use to reject 'the system', to start each day anew, to create meaning ex nihilo. Ellul starts off by correctly criticizing moral and political formulae that are uncritically applied, yet, it might be fair to see the final product as a sociology of the absurd. Modernity and standardization cannot be facilely equated either. Although it too is beyond the scope of this inquiry, it can be demonstrated that moral-types (standards) which should be emulated (a schema of logic) exist in all cultures, and that the argument about standardization is therefore fallacious. (Cf Claude Levi-Strauss, The Savage Mind, London, Weidenfeld and Nicolson, 1966). In fact, defenders of modernity would propose to Ellul that the qualitative difference between modernity and its historical antecedents is the development of a capacity for negative thinking - of the type which Ellul laments the absence of.

[22] I have stated that it is not my intention to engage in a methodological critique of Ellul. His insights are far too wide-ranging and addressed to fundamentals for the nit-picking approach. However, three observations are of sufficient importance for mention in a footnote. (There is a fourth - Ellul's conceptual confusion of the instrumental, the technical and the productive - which is of sufficient significance to merit a separate section.)

(i) Ellul's work is primarily ahistorical. His work with regard to technique and politicization contains a sociology of technique, a sociology of propaganda, a sociology of law, without examining the historical roots of 'the modern crisis'. He admits that his work is 'not a

history' and proceeds on this assumption. The work <u>Autopsy of Revolution</u>, (New York, Knopf, 1971), containing much historical reference, is, not coincidentally, his most solid work.

(ii) Ellul's philosophy of religion omits discussions within the discipline which are of importance. Ellul's category 'the sacred' often appears as static and autonomous from the profane. This methodological predisposition towards abstract and static categories is, of course, apparent in Ellul's discussion of technique. A reading of Mircea Eliade's <u>The Sacred and the Profane</u> (New York, Harcourt, Brace 1959) offers an alternative image of 'the sacred', one which exists as a dynamic category complementing the profane.

(iii) The literature of political theory is filled with attempts to explore the balance between compromise and intentionality in political action. Bernard Crick's <u>Defence of Politics</u> (Harmondsworth, Pelican, 1964) and Merleau-Ponty's 'Notes on Machiavelli' in <u>Signs</u> (Northwestern University Press, Evanston, 1964) are attempting to address the same theme: the elementary political question of the difference between individual and collective goods. Ellul's lack of interest in this problem leads him to a limited understanding of the political. Indeed, his moral vision allows little room for compromise (especially his critique of the new commonplace 'You Can't Act Without Getting Your Hands Dirty' in <u>A Critique of the New Commonplaces</u>, New York, Knopf, 1968).

[23] Mitcham, Carl and Mackay, Robert, 'Jacques Ellul and the Technological Society', <u>Philosophy Today</u>, Volume XV, No. 2, Summer 1971, p. 112.

[24] See <u>The Technological Society</u>, p. 100-101, p. 411-412.

[25] Mitcham and Mackay, <u>op. cit.</u>, p. 118.

[26] This is a criticism of his later works like 'The Technological Order', <u>op. cit.</u> for Braudel and Foucault published their main works in the 1960's. (For example, Braudel <u>Capitalism and Material Life 1400-1800</u>, Harper & Row, New York, 1973 and Michel Foucault, <u>The Order of Things: an archaeology of the human sciences</u>, Tavistock Publications, London, 1970.)

[27] The most important of these is <u>The Theological Foundations of Law</u>, New York, Seabury, 1969.

[28] <u>The Technological Society</u>, <u>op. cit.</u>, p. 41-2.

[29] A detailed examination of the theological aspects of Ellul's works is, as I have stated, far beyond my competence. However, some preliminary observations on the implications of Mitcham and Mackay's notion of a 'metaphysics of relations' seems to be in order. In their excellent review article of Ellul, they do consistently make one mistake. Instead of accepting the contradictions in his work and building on them, they attempt to make Ellul more consistent a thinker than he actually is. This is done by arguing that a thing has being BOTH because of its own essence and because of the context in which that essence exists. That is why Ellul's consistent uncertainty as to whether a change in the 'metaphysics of relations'

(consciousness, the ideational context) will suffice to ameliorate the conditions of the technological society. Certainly, at times he sees nothing incompatible between a revitalized Christianity and a technical framework. However, this is primarily in his theological writings. Ellul's experience of the sacred is notably abstract, as I pointed out in a previous footnote with comparison to Eliade. Because it is abstract, it can be seen to be total, permeating all of life. At no time does Ellul attempt to explore within a psychological framework the possibility for the co-existence of sacred and technical values. Nor does he attempt to demonstrate their incompatibility. Ultimately, we are left with the hope that they are compatible. It remains a rewarding exercise of theology and cultural anthropology to demonstrate under what circumstances they are. See Robin-Horton's article 'African Traditional Thought and Western Science' in Africa, Jan. 1967.

[30] The Technological Society, op. cit., p. 23.

[31] The concluding chapter attempts to deal with the relationship between structural and ideological factors in a general way.

[32] The Theological Foundations of Law, op. cit., p. 32.

[33] In waiting for a divine intervention, Ellul's definition of technique must change. It looses its organizational insights, which parallel the still cogent observations of Roberto Michels; and replaces it with a passive view of man's role in an ethical world. The theme of the organization of knowledge as a major problem of modern politics and economics is beginning to receive appropriate attention. See Leslie Sklair, Organized Knowledge, St. Albans, Hart-Davis MacGibbon, 1973.

[34] Ellul, Jacques, The Presence of the Kingdom, New York, Seabury Press, 1967, p. 82.

[35] Ibid., p. 83.

[36] An argument can be made that these societies have experienced drought only because of changes brought about in the world climate as a result of industrial production in other continents. At this point, the argument becomes too abstract for practical use. Previously, societies which failed to adapt to changing climatological conditions simply became extinct. To those still possessed with remnants of Social Darwinism, perhaps such an alternative is acceptable even today!

[37] But it is far beyond the scope of this effort. It would be useful to understand the role of technology in eliminating scarcity to develop such a comparison between the social dynamics of pre and post industrial scarcity.

[38] The Technological Society, op. cit., p. 65.

[39] Ibid., p. 77.

CHAPTER II

ELLUL'S CONTRIBUTIONS TO POLITICAL THEORY

The Possible and the Necessary

The autonomy and self-augmentation of technique imply that there is a tendency within the technological order to transform the technically possible into the socially necessary. Technique can be seen as the phenomenon of ever-expanding GNP's, and random R & D budgets, rationalized within the ideology of pure science. The process of technological change become the accumulation of novelties. In this regard, Ellul accurately discerns one of the basic tendencies of technocratic politics with regard to its relationship to science and technology. However, he stops short of posing one key question: what forces are responsible for this translation of the possible into the necessary? How is this exponentially-expanding innovation generated and justified? Ellul limits his capacity to deal with such questions because, from the inception, he has oriented himself towards a perspective which fails to see man as a part of the technological processes that surround him. A new series of questions must be posed as a result of Ellul's theories. Whatever the contemporary era is to be called, the technetronic age,[1] the cyberculture,[2] post-industrial society,[3] the planetary culture,[4] it has sufficient qualitative uniqueness to justify the refocusing of the key questions of political theory. A critique of Ellul must focus on the broad strokes. Ellul's conceptualization of the modern order, if left unmediated by a complementary brand of thinking, cannot adequately explore the context. They leave the

individual with a reinforced sense of impotence in facing the new
challenges of the technological society.

Technocracy means, by definition, the tendency to suggest
technological solutions to problems that are more amenable to other
procedures. Implicit within such a doctrine is the idea that such
'problems' can be 'solved' and that there is an objectively-calculable,
non-ideological remedy. The social sciences must rigorously examine this
aspect of technocracy and the exact causes of the automatic, autonomous
decisions to further technological innovations.

A further examination of the theme of the equation of the
possible and the necessary in modern decision-making will be reserved for
the following section. A full exploration of decision-making with regard
to technology and the supposed autonomy of technique is long overdue.
What are the policy-positions of various groups in society with regard to
transportation policies? Who supports the argument for new airports and
who for improved rapid transit systems? Under what circumstances is hard
technology vulnerable to political restraints? Certainly there is a strong
basis of ideological support for the technological-growth-because-it-can-be-
done attitude. Yet the SST was stopped; and there is no attempt to distribute
on a mass scale cars that can go 200 mph even though their technological
feasibility is demonstrated annually at Indiannapolis. The debate surround-
ing economic growth splits the socialist and liberal capitalist communities:

	Pro-Growth	Anti-Growth
Liberal Capitalist	standard Wall Street Journal	Club of Rome
Socialist	Monthly Review$_5$ Peace Research	Frankfurt School

Yet, despite this split (revolving largely around the interpretation of the scientific evidence regarding the availability of world resources) it is indisputable that surplus accumulation and the generation of new markets are a fundamental incentive to novel products. The possible becomes necessary at least in part for reasons that stem from an economic imperative. Economic man, whether socialist or capitalist, still suffers from an expansionist ethic as distinct from a redistributionist one. The proliferation of new technologies is not entirely without human inter-vention, however.

William Leiss writes:[6]

> The crucial question is: what is the historical
> dynamic that spurs on the mastery of internal and
> external nature in the modern period? Two factors shape
> the answer. One is that the domination of nature is
> conceived in terms of an intensive exploitation of
> nature's resources, and the other is that a level of
> control over the natural environment which would be
> sufficient (given a peaceful social order) to assure
> the material well-being of men has already been attained.
> But external nature continued to be viewed primarily
> as an object of potentially-increased mastery, despite
> the fact that the level of mastery has risen dramatically.
> The instinctual renunciation - the persistent mastery
> and denial of internal nature - which is required to
> support the project for the mastery of external nature
> (through the continuation of the traditional work-
> process for the sake of the seemingly endless productive
> applications of technological innovations) appears as
> more and more irrational in view of the already attained
> possibilities for the satisfaction of needs.

Thus the propulsion towards the production of technological gadgetry and the biological research into genetic engineering can be seen to stem from the same cultural consciousness. Exponential growth and the psychology of the 'technological fix' are fundamental insights into technocratic politics which can be gleaned from Ellul.[7] Leiss has suggested the appropriate questions for further exploration. If we see,

8

in Walter Benjamin's expression the essence of human technique as not
the domination of nature but the mastery of the relationship between nature
and humanity, then we can begin to formulate a political theory that can
humanize and naturalize the technological society. It is imperative to
formulate questions with regard to the relationship between technique and
decision-making processes of the state, questions like these: (i) how
was a decision like the James Bay project undertaken? according to what
criteria? (ii) how was a decision like the building of the Aswan dam
made? were the possible losses of fisheries at the mouth of the Nile
foreseen? was the tradeoff a valid choice? were alternatives available?
Similar questions could be asked about almost any high-visibility, high-
prestige, large-technology project, whether supertankerports, the Volta
Dam, innumerable airports, etc. Each innovation has corresponding negative
consequences - either foreseen on certain groups whose interests are not
well-represented - or unforeseen on the polity as a whole. Policy-making
becomes a tradeoff between interests. Yet Ellul would see that aspect of
decision-making as a function of technological determinism. Naturally,
within a pluralist framework, the 'tradeoff approach' to decision-making
means a tacit acceptance of the sell-out of under-represented groups (Indians
in the James Bay area, fishermen in Newfoundland outports, etc.) Bachrach
and Baratz critique of pluralist theory of decision-making in Power and

9

Poverty remains applicable in this context. It is impossible to build a
game theoretical model which quantifies different interests in calculating
the 'tradeoffs' in a particular innovation. However, the social cost of
decisions and non-decisions must be calculated within the policy process.
It can be argued that each decision to allocate x amount of resources of
a given society means that n number of projects requiring nx resources are
not funded. Yet assuming that scarce resources are endemic to any society

(even that which is materially affluent) the key question will remain
what criteria are used for public choice, and the extent to which that
process is accountable and responsive to adversary proceedings.[10] The
relationship between technology and politics is more complex than the view
that technology is autonomous suggests. In North American politics,
technological innovations and pork barrel politics have been closely related.
Further research must be done on the dynamics of the 'technological fix',
decisions which emphasize high-technology innovations instead of a re-
distributionist politics. In the American ethos, this economic tendency
has been reinforced by the idea that technology is the cornerstone of the
New World utopian order. Together, these factors have created a political
climate in which almost any technological change is viewed as inherently
good. This, plus the relationship between new technologies and corporate
R & D orient the concrete decisions of the policy-making process. Thus,
for particular reasons, the possible does become necessary, sometimes even
urgent. It is useless to speculate as to the degree that this is a function
of the ideology of technological progress and the degree that it is a function
of the relationship between the new technology and corporate America.
Suffice it to say at this point that the combined and related effects of the
two forces have led to many decisions which can too easily be construed as
simple technological determinism.

The Illusion of Planning

Ellul concludes his appendix to The Political Illusion with the
following indictment of planning:

> I believe that the formula of democratizing
> planning, or of bringing together politics and
> technique within a planning system is a characteristic
> example of a political illusion, of empty verbiage.
> It is a consolation that one gives oneself when
> confronted with this planning power, and of the
> consequent questioning of democracy.[11]

In this highly provocative section, Ellul lists the obstacles
to democratic planning: the irrationality of the citizen-consumer, the
concentration of technicians and planners removed from the consequences
of their plan, the lack of information of the deputes, the ambivalent
attitude of unionists towards active participation in these economic
plans, the determining effect of long-range plans on middle-range plans,
etc. Then, he adds a point which recurs throughout his writing that he
considers as fundamental: the impossibility of calculating effects:

> It is well-known that it is often necessary
> to bring about modifications and rectifications of
> the plan while it is being put into effect, not
> necessarily because of errors in the plan, but
> because of circumstances. What is then sometimes
> spoken of is 'active planning'. For instance, how
> can our plan be adapted to the bad harvest of 1963,
> to the inflow of refugees from Algeria, to the fourth
> week of paid vacations, etc.?[12]

Accordingly, Ellul sees talk of democratic planning slipping
into hypnotic verbalism. The plan itself becomes a factor of technical
power, he adds, favorably citing Meynaud's work on technocracy.[13]

In an extended comment on this point, Ellul discusses in The
Technological Society the work of J. de Castro entitled The Geography of
Hunger. He explicates his analysis of the illusory nature of planning:

> According to de Castro certain regions were
> deforested in order to grow sugar cane. But only
> the immediate technical productivity was considered.
> In a further work, de Castro seeks to show that the
> hunger problem was created by application of the
> capitalist and colonialist system to agriculture.
> His reasoning, however, is correct only to a very
> limited extent. It is true that when an agriculture
> of diversified crops is replaced by a single-crop
> economy for commercial ends (tobacco and sugar cane),
> capitalism is to blame. But most often crop diversi-
> fication is not disturbed. What happens is that new
> areas are brought under cultivation, producing a
> population increase and also a unilateral utilization

of the labor forces. AND THIS IS LESS A CAPITALIST
THAN A TECHNICAL FACT. If the possibility of
industrializing agriculture exists, why not use it?
Any engineer, agronomist, or economist of a hundred
years ago would have agreed that bringing uncultivated
lands under cultivation constituted a great advance.
The application of European agricultural techniques
represented an incomparable forward step, when compared,
for example, to Indian methods. But it involved certain
UNFORESEEN CONSEQUENCES: the resulting deforestation
modified hydrographic features, the rivers became torrents,
and the drainage waters produced catastrophic erosion.
The topsoil was completely carried away and agriculture
became impossible. The fauna, dependent on the existence
of the forest, disappeared. In this way, the food-producing
possibilities of vast regions vanished. The same situation
is developing as a result of the cultivation of peanuts
in Senegal, of cotton in the South of the United States,
and so on. None of this represents, as is commonly said,
a poor application of technique - one guided by selfish
interest. It is simply technique. And if the situation
is rectified 'too late' by the abandonment of the old
technique, it will only be as a consequence of some new
technical advance. In any case, the first step was
inevitable; man can never foresee the totality of
consequences of a given technical action. HISTORY
SHOWS THAT EVERY TECHNICAL APPLICATION FROM ITS BEGINNINGS
PRESENTS CERTAIN UNFORESEEABLE SECONDARY EFFECTS WHICH
ARE MUCH MORE DISASTROUS THAN THE LACK OF THE TECHNIQUE
WOULD HAVE BEEN. THESE EFFECTS EXIST ALONGSIDE THOSE
EFFECTS WHICH WERE FORESEEN AND EXPECTED AND WHICH
REPRESENT SOMETHING VALUABLE AND POSITIVE. (my emphasis
added)[14]

The conservative logic of this passage is evident: 'Because
we don't know what negative consequences may ensue, we should refrain from
doing anything.' Nevertheless, Ellul is correct in pointing out the
unforeseen and unintended consequences of any technological innovation (or,
for that matter, any human action). No science of technological change, no
matter how sophisticated, could calculate all the variables. Perhaps
unforeseen consequences could be minimized, however. Yet it is certain
that no world-systems modelling can calculate all conceivable eventualities.[15]
The currency of such conceptual frameworks as 'progress' obscure this
uncertainty by assuming unilinear trends in history. This provides one

important basis of the technocratic orientation, the management of history.
However, is it correct to assume that the only alternative to this (the
technocratic management of history, and the alchemy of turning the possible
into the necessary) is the complete status-quo orientation implied in
Ellul's discussion of the Green Revolution. Ellul's inadequate approach
to the problem is revealed here by his failure to formulate the underlying
and essential question: why is it easier to employ technological means
to alleviate certain ecological conditions ('in this case insufficient
production of food for the subsistence level of the population) than to
reorganize the political economy of the region involved? Would such a
reorganization inevitably succumb to the rules of technique? Ellul has
replied elsewhere that any such attempt at 'revolutionary' change would
inevitably be bureaucratized. [16] Ellul's warnings are wise if interpreted
as being a polemic against the psychology of the technological 'fix'.
However, in the overall context of his theological and sociological
writings, this is not their sole meaning.

Ellul's proposals, as elaborated below in this section, are
related to attempts to change consciousness. Similar problems arise
throughout Ellul's work, with regard to planning, law, propaganda. What
relationship exists between consciousness and the political and institutional
basis of society? If consciousness changed to accept the necessity of a
global and long-range dimensions to economic planning, what obstacles would
there be to the implementation of this new tendency? Concurrently, what
is the relationship between rational persuasion, public opinion, cultural
consciousness, and social change? His view of planning fails to take this
into account. The dynamics of the failure of plans is more complicated than
the truism that it is difficult to reconcile long-range planning with

democracy without a massive consciousness-change. Ellul's basic anti-politics do not provide a reply to the question of how such ameliorative reforms as those he suggests in 'The Technological Order' can be obtained. His distaste for compromise and the bargaining inherent to an effective politics severely limits his praxis. His theory is limited by his unwillingness to examine the causes of the problems he discerns: why do interdisciplinary research groups receive so little support from the scientific establishment? What tendencies have supported the abstractness of modern philosophy? Why is it easier to export a high-technology, capital-intensive 'Green Revolution' than to achieve a rational land-use policy in an underdeveloped area?

From Ellul's analysis, a series of questions about the obstacles to social planning and instrumental social change emerge. They are best-stated now, although they will be responded to in the final section:

> (i) Without entering into the complex data-war between the neo-Malthusians and their adversaries, what would the probable consequences of a large-scale rejection of technique (and its most obvious manifestation, the machine) be? How would this affect the possibility of reallocating resources in a world still dominated by scarcity?

> (ii) Why are technological resources directed towards centralized 'big science' projects such as space programmes, cancer research, construction technology? What is the relationship between such a technology and the pre-ecological philosophy of science still permeating the scientific establishment? Is this of any significance in an attempt to reach a dialogue with the technicians and to revive philosophy.

> (iii) Does technocracy emerge inexorably from the differentiation of society endemic to the process of industrialization? Even if this exists as a propensity of social structures, what alternative possibilities exist for post-industrial society?

> (iv) To what extent does a philosophy of science emphasizing control and manipulation of nature (including human 'nature') deserve to be viewed as the

only correct view of science. To what extent is it
an aberration emanating from unique historical and
ideological conditions?

(v) To what extent has Ellul excluded man from
a role in (and a responsibility for creating) the
processes that engulf him?[17]

Politization and Propaganda: The Failure of Democracy

Ellul's work on propaganda, communications systems, and the

sociology of knowledge displays many parallel concerns to his earlier work

on technique.   The conditions of the modern world are such that it is

impossible, he argues, to be an authentic individual, and, correspondingly,

a democratic citizen.   Communications have become standardized through the

mass media.   Discontinuous events are presented sequentially as 'news'.

Such a system, in Ellul's view, becomes a machine for consensus-making and

political integration essential for the functioning of the modern technostate.

The process trivializes ideas and reduces criticism to the repetition of

commonplaces that have no effect except to reinforce the individual as a

part of mass society.   Propaganda, he writes, no longer serves to convince

people, if that was ever its role:

> ...Propaganda is very frequently described as a
> manipulation for the purpose of changing ideas and
> opinions, of making individuals 'believe' some idea or
> fact, and finally of making them adhere to some
> doctrine - all matters of mind. Or, to put it differently,
> propaganda is described as dealing with beliefs or ideas.
> If the individual is a Marxist, it tries to destroy his
> conviction and turn him into an anti-Marxist, and so on.
> It calls on all the psychological mechanisms, but appeals
> to reason as well.   It tries to convince, to bring about
> a decision, to create a firm adherence to some truth.
> Then, obviously if the conviction is sufficiently strong,
> after some soul searching, the individual is ready for
> action.
>
> This line of reasoning is completely wrong. To
> view propaganda as still being what it was in 1850
> is to cling to an obsolete concept of man and of the means
> to influence him; it is to condemn oneself to understand

nothing about modern propaganda. The aim of modern
propaganda is no longer to modify ideas, but to provoke
action. It is no longer to change adherence to a
doctrine, but to make the individual cling irrationally
to a process of action. It is no longer to lead to a
choice, but to loosen the reflexes. It is no longer
to transform an opinion, but to arouse an active and
mythical belief.[18]

Certainly Ellul has demonstrated that in a fragmented mass

society, the technology of modern communications is essential for political

integration. (Most literature on political integration has developed

similar insights, primarily under the influence of Karl Deutsch). Ellul's

distinction between 'integration propaganda' and 'agitation propaganda'[19]

is helpful in understanding the roles of communications systems.

The question remains how the communications systems of modern

society structurally differs as an integrative and stabilizing system from

those of a non-industrial society. Part of the novelty of Ellul's argument

stems from his resolute unwillingness to consider political integration

as a desirable 'end'. (See the following section on centralization, where

integration and development are discussed.) Also, Ellul makes no attempt

to consider any contemporary developments in communications technology

and their possible implications for his thesis.[20]

'Propaganda no longer obeys an ideology,' Ellul writes.[21] After

describing ideology[22] in terms of a set of beliefs on which society rests,

Ellul uses a phraseology which is inherently misleading. Propaganda obeys

a technocratic orientation, and, accordingly, attempts to forge a distinct

consensus out of a highly-differentiated social fabric. Ellul sees all

aspects of modern life as politicized, meaning that activity is subject

to rational calculation, compromise, and is devoid of any intrinsic value.

For Ellul, technique has destroyed the private; whereas for another observer,

like Hannah Arendt, modernity has created a 'social' world to replace the 'public'. The different value-systems of these two authors is revealed in their different conceptualization of what is essentially the same analysis. It is more than incidental that Ellul sees propaganda as inducing a sense of participation (undesirable in that it politicizes social activity). On the other hand, the traditional pluralist approach emphasizes the non-participation of the average citizen. His participation is the act of delegating authority, and excessive activity is considered dangerous. Such a non-participatory society tends more towards privatization than mass engagement. This is the significant difference between the technocratic state and the 'mass participation' totalitarian states so familiar to the literature of political science. Framing the argument in this way, however, requires Ellul's entire thesis to collapse. His concern with the illusions of 'political man' and a hopelessly politicized society are the preconditions for the non-existence of Christian fellowship.

Propaganda, for Ellul (as for McLuhan, who writes an extremely favorable review of Propaganda in Book Week. This will be referred to in the second section.) induces these effects regardless of the content. Ellul's presentation of modern communications is so conscious of standardization that it fails to elaborate key differences. If the media are such that content is irrelevant, Ellul's thesis becomes more credible. But there is no argument to support this underlying contention. For example, muckraking as a philosophy of social responsibility rests on certain assumptions about the potential for effective political action in an open society. Ellul's thesis on propaganda would make such journalism just another random display of disjointed information. The mass of information (so massive that it must be stored in computerized data-banks) is not the potential negation of

technological propaganda, but, according to Ellul, is its very prerequisite:

> This informed opinion is indispensible for propaganda. Where we have no informed opinion with regard to political and economic affairs, propaganda cannot exist. For this reason, in most of the older countries, propaganda was localized and restricted to those groups which had direct contact with political life; it was not designed for the masses indifferent to such questions - indifferent because they were uninformed. The masses cannot be interested in political and economic questions or in the great ideological debates based on them, unless mass media of communication disseminate information to the public. We know that the most difficult to reach are the peasants, for a variety of reasons already pointed out; but another essential reason is that they are uninformed.

There is an obvious logic to this point. If a person does not know what 'Vietnam' is, he is not likely to respond to a debate about the existence or non-existence of American imperialism there. This logic also produces a frontal assault on the logic of meritocracy and expertise. What is the role of scientific proofs in political discourse? Is a 'limits to growth'-type study worth anything? A relatively-complex computer-programming model digested vast data to document what, to many, was obvious. Certainly, the study was worthwhile as part of process that could awaken and convince a society succeptible to scientific arguments.

But the surplus of information does serve to legitimize technocracy: the existence and the perceived importance of large quantities of specialized information leads to the belief that experts alone are capable of making contemporary political decisions. Yet, as noted above, Ellul fails to attempt a qualitative evaluation of the information dispensed through the communications systems. Critical works on the sociology of mass communications

24   25

such as Boorstein's The Image,   Cirino's Don't Blame the People   and

Schiller's Mass Communications and American Empire, are not mentioned.
Yet these works emphasize the importance of content in reinforcing pre-
vailing elite ideologies. The operation of media systems within a commercial
corporate economy has been the subject of much speculation. As also noted
above, many have observed that cable television has the potential to negate
the commercializing, banalizing tendencies of the mass media, by relating
more directly to personal and immediate problems. This remains, of course,
to be demonstrated in practice.

No political era is without its ironies. Ellul's critique of the
relationship between information, opinion, and action stands as a comprehensive
challenge to the theories of meritocracy and scientific administration.
Yet this challenge to the 'rule of experts' has itself become a 'commonplace'
of the modern era. Not only the commonplaces he lists in A Critique of
the New Commonplaces but also their logical oppositions have come to be
elements of the modern political discourse. In short, the debate is
banalized, and language loses its power. Consequently, if Arendt is correct
in arguing that politics is either speech or violence, the tensions of
modern society become more readily explicable.

The media are receptive to new images. Ellul's useful insight is
that a completely open system standardizes as repressively as a closed
system. By presenting all sides of each question, all debate is coopted.
The intricate dynamics of this cooptation need to be explored more fully.
If the proliferation of new cultural ideas can initiate structural changes
in social organization, Ellul's arguments about standardization are refuted.
In this sense, the debate regarding the cooptation of ideas versus the
use of ideas to erode by cultural means a dominant consciousness is of

considerable significance. The publication of Reich's <u>Greening of America</u> was immediately condemned by the American New Left as an example of the cooptation and defusion of Marcusian philosophy. Ellul's theory of social change, which, to its credit, emphasizes consciousness, hinges on this conceptual problem. Whether an idea contains the potential to erode the dominant consciousness or whether it is being coopted by an elastic image-constructing power structure depends primarily on the theorist's perception of the relationship between the ideational and structural dynamics of a society. How can we measure the effect of Ford Motors showing socially-concerned advertisements, or large corporations using T-groups for personnel management? A full exploration of this is impossible, but an attempt will be made to refocus this question in the final section.

The Inevitability of Centralization

It is an axiom of the literature on political integration that it is necessary to have an integrated polity before one can proceed with economic planning and national policies. However, since effective planning is, in Ellul's thesis, illusory, self-deceptive, there is scant value in achieving an integrated state. The argument that rational planning at a world level is a prerequisite to fair distribution of the world's resources is an effective response to Ellul's lament concerning the inevitable concentration of power in the modern technostate. In the language of political realism, large-scale decentralization and a socialist world economic-system are highly unlikely. Planning will continue to develop along the 'muddling through' approach suggested by Albert O. Hirschman's 'possibilism'.[28] It is similarly a truism of much international relations theory that increased contact brings about increased awareness of inter-dependence, and therefore increased cooperation which under certain

circumstances can become political or economic integration.

As discussed earlier, Ellul's concern is with the standardization engendered by the place of technique in mass society. At a global scale, this standardization can lead to a cultural homogenization under the guise of technical planning. Yet Ellul's perspective is sufficiently distorted to limit his capacity to formulate alternative models of political organization for the post-industrial world. However, Ellul's understanding of organizational principles, derived in some significant way from the philosophy of Teilhard de Chardin, points out the forces propelling integration and homogenization in a technological world:

> The point is that the integration of nations and peoples into independent power blocs very greatly reduces possibilities for independent decisions. A typical case is that of the new nations. Three months after Fidel Castro came to power I wrote (and received no praise and much criticism for my 'simplistic' views) that he would be forced to enter the Soviet bloc; that he would not be able to carry out his personal policy; and that this alignment would lead to internal communization... Once the African and Arab people have consolidated themselves they will be obliged to enter a rigorously closed and determined system. Let no one say at this point that the entrance of nations into a vast body only shifts the locus of decisions, and that decisions can be made just the same. Some say: 'We are only going through a period of adaptation. Political decisions thus far taken on the national level now become decisions at a higher level, but remain just as free. A difficulty only arises from the inconsistency between these two levels, and the difficulty of bringing them together.' We know that argument; but we are referring only to one of the constants that cannot be demonstrated here for reasons of space: EVERY TIME AN ORGANISM INCREASES IN DIMENSION AND COMPLEXITY, THE RATE OF NECESSITY INCREASES AND THE POSSIBILITIES OF CHOICE AND ADAPTATION DECLINE. IN REALITY, BIG BLOCS OBEY MUCH MORE RIGOROUS MECHANISMS AND THEIR POLITICAL ACTIONS BECOME INCREASINGLY SIMPLISTIC AND PREDICTABLE. THE SIZE AND COMPLEXITY OF THE MECHANISM IS SUCH THAT, IF WE WANT IT TO FUNCTION, IT MUST FUNCTION IN AN AUTONOMOUS FASHION, WITH THE FEWEST POSSIBLE DECISIONS AND INNOVATIONS.[29]

This argument opposes complexity and scale to autonomy in Ellul's cybernetic theory of organization. It proposes the axiom that complexity eliminates

the capacity to choose except through a complicated cybernetic game theory. In accepting this logic borrowed from systems theory, Ellul has accepted the basic philosophical premise on which modern technocracy is based. He does not question the extent and the manner whereby Arabs and Africans will be absorbed into a closed and determined system. The global community is part of the same ecosystem. With that awareness, modern political theory is intrinsically limited in its suppositions regarding the possibility of local autonomy. However, as will be elaborated in the next section, the differentiation and complexity of the global system only eliminates choice within a certain mode of thing:[30]

Certainly, it follows logically from these assumptions that a prerequisite to the attainment of a dignified society is the reduction of the current scale of social organization. The autonomy of technique is related to the scale of social organization. Change, of course, is occurring, by most indicators, more rapidly (disorientingly) than ever before; that is a fundamental feature of modernity. However, the process of social change is becoming more and more associated with technological innovations as distinct from political policies. In this manner, the difference between the industrial revolution and the emerging cybernetic revolution might be in the relationship between concrete choice and the direction of innovations. At one level, Ellul's analysis of technological society is tautological: the expanding scale of social operations limits the capacity of human action to grapple with the forces that are directly effecting peoples' lives.

If the possibility of immediate, direct action is lost, alienation apparently is inevitable. Post-industrial society is a product of diversification which has developed in turn specialized labour activities and an

accommodative theory of consensual politics. The individual is no longer part of an organic unity. Community has been replaced by a preeminent technostructure that renders the individual part of an inert mass subject to the behaviour of a 'rigorous mechanism'. The technocratic ideology necessary for the functioning of such a society seeks to impose a consensual blueprint on the social reality. This is to be the new consensus. Just as this attempt to reintegrate a fragmented social reality is inadequate, it is similarly insufficient to suggest that wholeness can be attained subjectively. That is to say, an individual consciousness cannot naively project an integrated psychological viewpoint onto a fragmented society as an ultimate political act.[31] Society must be organized according to certain criteria which facilitate the disclosure of meaning within the macrocosm. Ellul's analysis is useful insofar as he focuses on the technostructure as a determinant of the style of contemporary politics. The value of this is diminished by his insistence that the 'rigorous mechanisms' of contemporary technique exist autonomously.

Ellul's reaction has come full circle. In rejecting ideology and dogma, he is prepared to exclude explanation or the possibility of explanatory knowledge. In restoring a sense of wonder, he is prepared to live in doubt. In condemning 'psycho-sociological manipulation', he is prepared to avoid the search for the socio-philosophical causes of that manipulation. Ultimately someone as concerned with ethics as Ellul is must confront the question: if there is no possibility of explaining causality in history, how can moralists assign responsibility without being arbitrary? Ellul's world, stripped of scientific 'pretensions' would be curiously amoral.

Ellul's Solution: Radical Subjectivity, Resistence and Modernity

Ultimately, Ellul's solutions to the paradoxes and dilemmas of modernity rest with the individual, and are influenced by Ellul's perception of the instrumental reason and the role of collective action.

It is plausible that the developments in modern science have sufficiently complicated the world that the perception of the individual actor is radically restructured. For example, the same elementary technical capacities which provided the ancients with a sense of efficacy (however they articulated the relationship between their technique and their efficacy and sense of worth) fail to induce similar responses today. The concept of self, defined in terms of instrumentality, is significantly modern.[32]

Modern technique does render man 'incapable of controlling society's present forms - the organizing, systematizing forces that suppress personality and destroy the flexibility of life.'[33] In the essay 'Between Chaos and Paralysis', Ellul expresses his personalist and religious synthesis. He presents a justification for radical subjectivity. Authentic action is reduced to faith and worship, singularly non-instrumental and representational in their political forms. In discovering that the individual is lost in the standardizing, homogenizing world of technique, Ellul correctly wants to establish a place of meaning for the personal. Yet his description of the individual noticeably emphasizes his passivity, and there is no attempt to discuss the origins of the critical-spirit:

> For what is under attack in our present society
> is the autonomy of the citizen, his ability to judge
> for himself. He is up against networks of information,
> public relations, propaganda in diverse forms. Hence we
> can attain democracy if we start out from the possibility

of critical renewal, but not if we start out from new institutional systems, or by joining a party or by propagandizing for some group that may seem to be better than another.

This radical subjectivity will inform also the three human passions which seem to be the essential ones - the passions to create, to love, to play.

Ellul searches for a spontaneous and original creativity, originating in the self, that cannot be coopted by social systems. It is a perpetual rebellion, a radical social phenomenology which negates through irrationalist non-conformity.[34] Ellul astutely points out that 'the creative project of a hobby is a good thing, but it has become a fashion, it has been commercialized and turned into a means of integration into society'. Ellul comes very close to advocating a consistent non-conformity. This attraction to 'deviance for deviance's sake' leads Ellul away from the vital question that he has tentatively formulated: What are the processes of modern society which enable it to draw strength from deviant behaviour and incorporate it easily into the pluralist whole? Ellul's conundrum is that of the professional rebel. Advocating non-conformity in a given context, he finds that non-conformity developing into an extreme opposition to anything remotely suggesting collectivism. Socialization studies of extremists could perhaps be used to test this tendency. Thus, eventually, integration into mass society, fellowship in a group, citizenship in a community are all phrases that must basically reflect the same dangerous collectivist impulse to Ellul. Each contains the potential for standardization. Resistance to these tendencies is a consistent problem of political theory, surfacing in such debates as that surrounding 'permanent revolution'.

Ellul seems to be proposing a distancing, the interposing of an

aesthetic category as a mediation in the pursuit of the truly rational.

As discussed above, Ellul neglects the complementarity between self and

community. Consequently, he presents his radical subjectivity as an end,

instead of as a mediation which activates a radical consciousness capable

of instrumental action. In calling for each individual to become a

creator of his own life, he realizes that each individual:

> ...not only will have to oppose the forces of
> conformity but (at least in many cases) he will have
> to carry on his trade or profession or fulfill other
> obligations at the same time. Thus he will be operating
> not on the margin of society, but in it. A person must
> not use his free time to distract or cultivate himself,
> but to create his own life.[36]

Leisure becomes the locus of self-realization, something which

is shared by the ideology of consumer society. Yet the passage is also

a profound insight into the virtues of individuation, the desirability of

a flexible, complex environment in which experiences can be diversified

in an authentic manner. (Compare, for example, the diversified world in

Ellul's image to the absence of real choice in the one-dimensional world

of technocratic pluralism. Or, similarly, the absence of choice in the

scarcity society which may have an organic community arranged around a

culture of poverty.)

Ellul's choice of words is ironically modern though. He talks of

the individual creating meaning, instead of discerning it within the inter-

subjectivity of his life-world. Participation is prompted by a passion to

play (which is free, spontaneous). Any other inducements to participate,

however, are not free, and consequently become part of the politics of a

technical structure which itself must be opposed.

In this framework, Ellul's ideas of politics in the technological

society take on their anti-collectivist bias. Robert Nisbet's review

article states this tendency succinctly:

> Ellul views politics and particularly leftist,
> militant politics as a prime example of the triumph
> of means and mere action over ends. For any end ever
> to be actually achieved would, as he notes, spell the
> end of the militant action seeking that end.

Ellul's dilemma is that he defines politization in such a way

that by definition it deprives man of his individuality. Commitment

(implicitly instrumental, oriented towards a goal) is dichotomized with

faith. It is a truism that revolutionary militancy succumbs to inevitable

institutionalization. From this truism, Ellul develops a notion of political

action as illusory.[37] Any reply to Ellul which attempts to restore purpose

to the living of history runs the risk of being branded eschatological. Yet,

despite the implications of Nisbet's remark, purpose does not necessarily

mean a single historical goal, upon which the attainment of all meaning rests.

Purpose can be a possibilist goal, a sequence of projects integrated by a

theoretical understanding of social action.

Ellul's radical subjectivity is part of his theological task of

rendering the gospels relevant to modern man. One critic has observed:

> Ellul helps to revive individualism, perhaps more
> accurately, subjectivity as a respectable starting
> point. Liberate a Barthian respect for the Bible from
> accumulated fundamentalist roots and you get a pretty
> free sort of person whose liberty is centred on the Christ
> event, but whose intellectual range is nuanced by the
> range of the entire Bible and (because he is free) the
> whole range of the perceived world.[38]

Ellul's view of radical subjectivity sees the critical vision as

being of paramount importance. Its importance to him is as an end in itself.

Certainly, such critical reflection is necessary to negate the cumulative

effect of propaganda in the modern world. In his work on the media, Ellul

offers some perceptive observations. The pursuit of knowledge has become objectified. Accordingly, only a radical bearing-witness on the world will suffice.

Ellul's critique of the commonplaces reveals his distrust for action and public life. The commonplaces he selects for his most devastating remarks include 'We must follow the current of history'; 'You can't act without getting your hands dirty'; 'Politics First!'; 'Public interest comes before private interest'; 'The machine is a neutral object and man is its master'; 'The end justifies the means' etc. The dominance of these commonplaces dramatizes the difficulties of democratic citizenship. In a subtle way, Ellul's commonplaces display the tendency within modernity to seek a restorative purity in action and experience. This utopianism, mediated by practical considerations, is indispensible to a humanist political theory. The difficulty of achieving a balance between these categories is endemic to Ellul, who is left trying to negate the totalitar- ianism of technique with the monism of radical subjectivity. In discussing the commonplace 'You can't act without getting your hands dirty', this point is demonstrated by Ellul's rejection of the fundamental tenets of democratic practice:

> ...the only respectable decision is to refuse
> all compromise in advance. It is to know, of course,
> that in action, in practice, in combat, 'evil eventually
> creeps in', but never to accept it, never to tolerate it,
> never to justify it; to know that killing is killing, and
> that there is no way to resign oneself to it.[39]

Compromise and impurity are the fundamental characteristics of politics for Ellul. Politization means two things, both negative develop- ments: (i) all actions are seen as means to further ends and resultingly devalue immediate experience; (ii) Marxism and other forms of modern social

science which attempt to see events in larger context (totalities) tend
to limit the role of the individual. Because this mode of explanation is
viewed in this way, Ellul's praxis cannot extend beyond the parameters
of his rigorous demand for authenticity on the part of the individual. He
seems to be saying that if the individual feels himself powerless, let
him declare himself to be powerful. At no point is he willing to extend
this analysis into the role of social institutions.

Consequently, Ellul is concerned with resistance as the key
concept in his individualized praxis. This becomes apparent in his dis-
cussion of revolution. Autopsy of Revolution is the one non-theological
piece of work which presumes to undertake an historical examination. Ellul
distinguishes between revolutions within history (which are not manifestations
of human freedom because they follow certain 'necessary' trends) and
revolutions against history (which do manifest freedom because they resist
these trends). For political theory, this is one of Ellul's most interesting
insights. Definitionally, it transcends the simplistic left-right dichotomies
which characterize most of the social science literature on revolution.
Similarly, a distinction between millenarian movements and structural,
organized revolutions, encouraged by the developments of Marxist scholarship,
can offer useful insights in the debate regarding organizational rigidification.
The relationship between 'populist' upsurges and real structural change
remains a conceptually vague point in the literature.[40]

It is by overcoming the 'society of spectacle' (the technological
society, consumer society) that man is asserting his freedom in Ellul's
framework. Human will is a force which must be used to resist history and
assert faith, but, of course, in no way is it permitted to become instrumental.
In the conclusion to Autopsy of Revolution, Ellul addresses this issue.

Extending on the consciousness-amending formula presented in 'The

Technological Order', Ellul writes:

> Of course, if revolution occurs, it must oppose
> all attempts to integrate individuals into the totalitarian
> social body by means of intermediary groups and communities.
> But that integration operates through an extraordinarily
> complex network of psychological devices ranging from
> harmless public assistance to tranquilizing propaganda.
> Revolution must aim at countering the psycho-sociological
> manipulation which is part of the spectacle. A certain
> spontaneity helps to create the society of spectacle, but
> also a deliberate effort to absorb the human community
> through propaganda, psychological pressures, public
> relations, as well as through a frenzied barrage of
> information which is not beneficial because it imprisons
> man (by distorting his perspective) in a purely fictional
> universe - and strangely enough, it also arouses hostility
> to a society or culture in which artistic and intellectual
> creativity has lost its authority and meaningfulness, and
> in turn has become mere consumption, illusion, triviality,
> diversion and mystification.

Ellul states explicitly [42] that 'revolution's only possible focus

is on the development of consciousness, but once again makes no effort to

explore the relationship between consciousness and structure. In replying

to the reviews of the earlier works which so criticized his pessimism, he

moderates some positions. But he still writes that 'conscious effort alone

has no effect whatever on technology and science.' Ellul recognizes the

necessity of something more but is entrapped by his own fear of instrumental

thinking and consequently refrains from developing this critical insight

further. His theory of social change remains confused as he concedes that

'revolution cannot result uniquely from individual awakenings to the

global nature of society.'

Ellul is aware of the inadequacy of his theories and yet merely

stops his analysis short of developing the problems of the remedy. What

is needed, as is developed in the next section, is not the instrumentally

transparent universe of the technocratic planner, nor the crude positivistic

view of certainty of the behavioral sciences. Instead there must be the
development of a formula for political action which assesses the probable
consequences of policies and emphasizes intentionality to compensate for
the preoccupation of economic man with utility.

The role of rationality in the processes of change also requires
careful analysis. The misleading notion that there is only one species
of reason in human thought has wrought some disastrous consequences. Ellul
is vaguely aware of this problem, but leaves it undeveloped.[43] In the
Political Illusion, Ellul writes:[44]

> The problem is, first of all, rational man, which,
> to be sure does not mean rationalistic man. There can
> be human democracy only if man is determined to deal with
> everything by the use of proper reason and some cool
> lucidity based on great intellectual humility at the
> level of reason.

In Autopsy of Revolution, he writes:

> It is pointless to say that purely spontaneous
> revolutions have occurred in the past, or that man's
> continuous social existence accounts for his semi-
> awareness: yesterday is not today. The aggression
> he must contend with now is calculated and manifestly
> willful. Only reason and intelligence can combat it.
> We have reached the stage of rational organization; a
> revolution cannot be founded in irrationality, and demands
> greater discipline than ever. No longer can revolution
> be made by doing the opposite. In our present stage of
> development, technical skill can salvage explosive
> irrationality, can integrate and utilize it. That would
> be propaganda's function, for example, to make rational
> use of spontaneous impulses.[45]

Ellul's blend of rationalism and individualism does not lead to
an effective anti-technocratic praxis. It is curious how aware he is of
the limitations of spontaneous outbursts of irrationality and yet how un-
concerned he is with his failure to attempt to formulate a praxis. After
writing this, he can still discuss radical subjectivity in the same manner

as in 'Between Chaos and Paralysis'. For Ellul, to be authentically revolutionary is to be contemplative. Certainly, this succeeds in negating the value placed on frantic activity by the modern world. However, in terms of changing the current situation, Ellul seems to offer little but a confession of human limitations:[46]

> Man must face the facts of technological society and, in his private self, go beyond them. He must create values, therefore, not artificial values, but common ones that can be shared, and the values he creates should not be the products of revolution: they should be the motive, the source, and the meaning of it. His revolution will be motivated and oriented by the values he chooses.

Underlying this passage is the hope that a society can be created in which what is valued will be what is authentically needed. Ellul's anti-naturalism is demonstrated by the choice of the expression 'creation of values' as distinct from, say, the discernment of values in the inter-subjective, the public. This may be semantic sloppiness on Ellul's part, yet it seems to be evidence of more than that. As long as the discussion of technological society takes place in a vocabulary which is itself technological (e.g., the creation of values), the task of humanizing technique will be virtually impossible.

Ultimately, Ellul's vision is completely personalist. For example, in discussing the contribution of situationism to his understanding of revolution, he writes:

> Situationism should be credited for advocating individual decision-making and the exercise of imagination free of the irrationality we have discussed. The individual is committed to scrutinize his daily existence and to create a potential new one. In an organized, rational, totalitarian society, he will have to eliminate the disorder and reorganize its elements. The concept of a 'constructed situation' conveys that:

'a moment of existence, concretely and purposefully
constructed by the collective orderings of a consistent
climate and a series of events'. Situationists insist
on challenging 'basic banalities' which include most
of the beliefs of our society.

Ellul correctly hails the arrival of a conscious awareness as
an important sociological phenomenon in itself. It corrects the distorted
focus which had marked our technocratic orientations. After we have
attained a clearer insight, 'we need every spark of defiance and self-
assertion we can muster, a new spirit wholly distinct from traditional
individualism and from everything heretofore described as revolution. We
have no legacy to fall back on; everything must be initiated.[48]

The concession of these limitations is unfortunate. Ellul has
failed to note the potential for complementarity between ecological thinking
with its emphasis on the whole and communitarian decentralization. In
accepting a rigid dichotomy between the theories of centralization and
decentralization, Ellul falls short of initiating a new synthesis. The
task is to construct a social theory which facilitates the development of
this potential complementarity. Such an investigation must examine the
problems of the underlying theory behind regulatory agencies which in
attempting to control technology instead proliferate bureaucratic techniques.
Ellul's explanation cannot include an analysis of this or of the exact
process by which planning becomes social engineering. This is partly because
it lacks a firm historical examination of the causes of the contemporary
situation. It is also partly because Ellul's examination is predicated on
some of the assumptions that have fragmented the worldview of modern man.
In Autopsy, Ellul appears to be more aware of this (especially in his
discussion of spontaneity and organization, which too frequently are
simplistically opposed to each other). Nevertheless, he projects other

dichotomies into his social theory which result in a limited analysis. The next section will attempt to go beyond these conceptual difficulties.

FOOTNOTES

[1] Brzezinski, Zbigniew, Between Two Ages: America's role in the technetronic era, New York, Viking Press, 1970.

[2] Hilton, Alice May, Evolving Society: Conference on the Cybercultural Revolution, New York, Institute for Cybercultural Research, 1966.

[3] Bell, Daniel, The Coming of Post-Industrial Society: a venture in social forecasting, New York, Basic Books, 1973.

[4] McHale, John, The Future of the Future, New York, G. Braziller, 1969.

[5] Galtung, Johan, 'Limits to Growth and Class Politics', Journal of Peace Research, 1973, 1-2.

[6] Leiss, William, The Domination of Nature, New York, G. Braziller, 1972, p. 153.

[7] Biological engineering may prove to be the most dramatic example of this psychology of the technological fix. The only rationale for experimentation into the 'genetics of control' derives from a 'law and order' philosophy. Instead of perceiving crime and aggressive behaviour as social phenomena, the technocratic language describes them as a 'problem' solvable by technical means. The structure of the thinking remains the same: genetic surgery, neurosurgery, and shock therapy are 'easier' than addressing the social framework of aggressive or criminal activities.

[8] Quoted in Leiss, op. cit., p. 198.

[9] Bachrach, Peter and Baratz, Morton, Power and Poverty, New York, Oxford University Press, 1970.

[10] It can certainly be argued that these criteria have applicability in the Eastern Europeans socialist states as well as in liberal democracies. For a discussion of technocratic trends in East. Europe, see Milovan Djilas, The New Class: an analysis of the Communist system, New York, Praeger, 1957; Vladimir Kusin, The Intellectual Origins of the Prague Spring: the development of reformist ideas in Czechoslovakia 1956-1967, Cambridge, Cambridge University Press, 1971; and Frank Parkin, Class Inequality and Political Order: social stratification in capitalist and communist societies, London, MacGibbon and Kee, 1971.

[11] The Political Illusion, op. cit., p. 258.

[12] Ibid., p. 256.

[13] Meynaud, Jean, Technocracy, New York, Free Press, 1969.

[14] The Technological Society, op. cit., p. 104-105.

[15] See Jay Forrester's reply to criticism of the methodology from members of the University of Sussex Science Policy Research Unit in Futures, Vol. 5, No. 1, Feb. 1973.

[16] See p. 155 of The Political Illusion for a skeptical discussion of an anti-bureaucratic speech by Cuban Premier Castro: 'But all these leaders wisely returned to the road of bureaucratic organization because they had to. A state that wants to do everything and change everything, can do so only with the help of an enormous bureaucracy. Anti-bureaucratic litanies are on the order of magic incantations, and absolutely no genuine modification of bureaucratic autonomy can ensue from them' Ellul is hardly original in pointing out the tendency of revolutionary movements to become bureaucratic. However, he ignores consideration of the ills that this bureaucratization was attempting to remedy. He also ignores discussions of alternative models of organization which would not be so bureaucratic. The list has become a litany, but bears repeating: Tanzanian ujamaa villages, Israeli kibbutzim, and aspects of village reorganization in China. In retaining an awareness of the shortcomings and negative aspects of these experiments, one must concede that there are attempts to address the problem Ellul is raising.

[17] This point is well-discussed in a chapter on Ellul in William Kuhns' Post-Industrial Prophets, Weybright and Talley, New York, 1971, p. 109-110.

[18] Propaganda, op. cit., p. 25.

[19] Ibid., p. 75-6.

[20] For example, a large body of literature is now being compiled with regard to the role of communications systems in reorganizing society. Some is institutional literature, like the Sloan Commission on Cable Television in the USA; other is counter-cultural, like, say, the newsletter Synergy Access. Admittedly, these examples are both American, but so are many of Ellul's insights regarding the role of modern communications in perpetuating the political illusion.

[21] The Political Illusion, op. cit., p. 196.

[22] Ibid., p. 193.

[23] Ibid., p. 112-113.

[24] Boorstein, Daniel, The Image: a guide to pseudo-events in America, New York, Harper & Row, 1964.

[25] Cirino, Robert, Don't Blame the People: how the news media use bias, distortion and censorship to manipulate public opinion, Los Angeles, Diversity Press, 1971.

[26] Schiller, Herbert, Mass Communications and American Empire, New York, A.M. Kelley, 1969.

27 Ellul's collection of essays, <u>A Critique of the New Commonplaces</u>, contains its own irony. His criticism of the unthought-out assumptions which underlie modern opinion can be applied to his own work.

28 It is important to note that Hirschman does not equate 'possibilism' with 'incrementalism' or 'piecemeal adjustment'. See the introduction to <u>A Bias for Hope:</u> essays on development and Latin America, New Haven, Yale University Press, 1971.

29 <u>The Political Illusion</u>, <u>op. cit.</u>, p. 34-5.

30 Despite his criticisms of Teilhard's extravagant metaphysics, Ellul accepts the notion that complexity eliminates autonomy. Teilhard's ideas that tensions will dissolve through a process of determined historical unification are transformed into Ellul's theme of standardization. (See Teilhard de Chardin, <u>The Phenomenon of Man</u>, William Collins & Co., London, 1959; and <u>The Future of Man</u>, William Collins Sons & Co., London 1964). Compare these works with p. 235 of <u>The Political Illusion</u>, where he writes: 'He (rational man) must reject all forms of idealism and all explanatory doctrines of the world, of science, of society, and the kind of man propounded by Teilhard de Chardin; he must reject them as the principal ways by which man is being reached by propaganda and psycho-sociological manipulation. I do not bring to bear here a value judgment or a metaphysical judgment on the sacred, irrational and profound; this is only a relative judgment on man's vulnerability when he trades for such forces all that is reasonable.'

31 This is another point which cannot be satisfactorily explored at this time. The question of projecting a totalized self onto a fragmented world - of individuation as praxis - is explored in an excellent essay by that title by Shierry Weber in <u>Critical Interruptions: new left perspectives</u> on Herbert Marcuse, edited by Paul Breines, New York, Herder and Herder, 1970. Of necessity it must suffice to say at this point that there mere dynamics of transcending such fragmentation and alienation in post-industrial society is an important political act. It involves the psychological process of committing oneself to the life-forces and is of symbolic import as part of an overall praxis, such as will be discussed in the next section. As I have tried to indicate throughout, this is an admirable and a necessary task. However, the question is whether it alone is sufficient or all that is possible.

32 The self, in the sense of a Freudian ego-system, is distinctly modern, and would not be understood by a Winnebago or a Hopi. Yet aspects of personality-formation can be discerned within different cultural groupings. If one is prepared to argue that instrumentality, as a system of logic and negation, is endemic to cognitive development, the key distinction between modernity and its antecedents is reduced simply to the amount of time available for inquiry and reflection.

33 'Between Chaos and Paralysis', <u>Christian Century</u>, June 5, 1968, p. 747.

34 The whole description is reminiscent of R.D. Laing's discussions of madness in <u>The Divided Self</u>, Harmondsworth, Penguin, 1965, and <u>The Politics of Experience</u>, Harmondsworth, Penguin, 1967.

[35] See Schiller's <u>On The Aesthetic Education of Man</u> in a series of letters; translated with an introduction by Reginald Shell, New York, F. Ungar Publishing Co., 1965.

[36] 'Between Chaos and Paralysis', <u>op. cit.</u>, p. 749.

[37] It is interesting to note that here he shows a marked similarity to some thinkers who can loosely be classed as 'post-positivist', having built on certain insights of positivism and attempted to locate meaning in immediate action and perception. See Gunther Stent, <u>The Coming of the Golden Age</u>, New York, Published for the American Museum of Natural History by the Natural History Press, 1969; Roderick Seidenberg <u>Post-Historic Man</u>: an inquiry, Chapel Hill, University of North Carolina Press, 1950; Gene Youngblood, <u>Expanded Cinema</u>, New York, Dutton, 1970; and Ernest Becker, <u>The Structure of Evil</u>: an essay on the unification of the science of man, New York, G. Braziller, 1968. Some practitioners of process philosophy should also be added to the list. What they share is the notion of the qualitative difference of the potentialities of the modern era. In different ways, from difference disciplines, they contribute to the notion that meaning can be constructed ex nihilo and that art is precisely that act. Obviously, this perspective could not be developed in a scarcity era.

[38] Stephen Rose, 'Whither Ethics, Jacques Ellul?', p. 124, in <u>Introducing Jacques Ellul</u> (edited by James Y. Holloway, Eerdmans Publishing Co., Grand Rapids, Michigan, 1970.

[39] <u>A Critique of the New Commonplaces</u>, op. cit., p. 45.

[40] See, for example, works like Eric Hobsbawm's <u>Primitive Rebels</u>, New York, Norton, 1965. The characteristics of millenarian movements is an especially important point for a detailed examination of Ellul's thesis. Millenariamism, peasant rebellions and the spontaneous outburst of post-industrial counter-cultural activities can leaf to major structural changes in the social process. The dynamics of this process of negation vary and require much further study.

[41] <u>Autopsy of Revolution</u>, op. cit., p. 276-7.

[42] <u>Ibid.</u>, p. 283.

[43] This point will be returned to in the next section, in a discussion of Leiss' interpretation of Horkheimer's distinction between subjective and objective reason. For now, I shall just present the difficulty as it appears in Ellul.

[44] <u>The Political Illusion</u>, p. 235.

[45] <u>Ibid.</u>, p. 283-284.

[46] <u>Ibid.</u>, p. 290.

[47] Referring primarily to Debard, <u>La Societe du Spectacle</u> and Vaneigem, <u>Traite de savoir vivre a l'usage des jeunes generations</u> in <u>Autopsy of Revolution</u>, p. 294.

[48] <u>Autopsy of Revolution</u>, p. 300.

CHAPTER III

POLICY AND PRAXIS IN THE TECHNOLOGICAL SOCIETY

The Role of the State in Directing Innovation:
The Necessary and the Possible

Two insights into the relationship between science and technology may clarify some of the following discussions. In his discussion of Scheler's work, William Leiss writes the following:

> The final important point in Scheler's argument is the attempted demonstration of an inner connection between the theoretical scientific structure and the technological applicability of science. Scheler contends that technology is not the subsequent application in practice of a 'theoretical-contemplative science'; rather HERRSCHAFTSWISSEN is primarily characterized by the unity of its theoretical and practical aspects. The actual forms of thought and intuition which make up its conceptual apparatus themselves operate according to a principle of selection guided by the practical objective of asserting mastery over the environment. This does not mean that the science is governed by specific or immediate technological goals which shape its theoretical structure, but only that in general it embodies the drive for power.

Also, Hans Jonas writes in his article 'The Scientific and Technological Revolution':

> We latecomers, tasters of the bitterness of the Baconian fruit, smitten with the wisdom that comes after the fact, may just be moving, with the burden of science on our shoulders, into a humbler postmodern age. The science we take with us will still be that which Bacon, unsuspecting of the darker consequences, was the first to conceive of as a utilitarian tool of civilisation, a collective

enterprise of society, institutionalized, organized,
split up into subcontracted tasks, its results fit
for the production of wealth and the destruction
thereof, for the furtherance of life and the
annihilation thereof.[2]

It must be conceded that the complexity of post-industrial society
means that control of technological innovations, like other forms of
planning and policy-making, is subject to the same limitations in terms
of the predictability of the effects (see the following section on planning).
It is naive to suggest that each innovation can be subjected to an exact
cost-benefit assessment of its societal implications. For example, the
telescope's military consequences were foreseen; but it would be impossible
to imagine anyone replicating the implications of such an invention ad
infinitum as they ripple through history. The concession that the develop-
ment of technology is the development of unforeseen effects in no way
indicates that reliable technology assessment is impossible; it simply
locates severe obstacles.[3]

Ellul points out that although state aid to scientific research
is not new, it is, nevertheless on an unprecedented scale today. The
implication is that 'through the authority of the state, technology is no
longer at the service of private interests; and this gives the state, if
not real freedom, at least additional justification.'[4] The technostate
determines the proliferation of new technologies. Yet Ellul's sociology
of science dissolves into severe conceptual confusion at this stage. He
writes that although in principle science can still be independent, in
fact, it is not. Referring to the Nazi concept of Zweckwissenschaft
('practical or purposive science'), Ellul writes:

The state mobilizes all technicians and
scientists, and imposes on all a precise and

> limited technical objective. It forces them to
> specialize to a greater and greater degree, and
> remains itself the ordering force behind the
> specialists. It forbids all research which it
> deems not to be in its own interests and institutes
> only that research which has utility. Everything
> is subordinated to the idea of service and utility.
> Ends are known in advance; science only furnishes
> the means.[5]

His discussion of the sociology of science reveals a major flaw in his analysis. In the characterology of technique, Ellul asserts the autonomy of technique. Yet in this section, he is showing the utilitarian tendencies of Zweckwissenschaft and argues that these permeate the modern scientific community. The development of the technology necessary for moon-flights, the ecocide and genocide against Vietnam, or the mobilization of scientific resources for a battle against cancer are examples of modern Zweckwissenschaft. This seems to contradict his earlier arguments that technique is autonomous, for these are quite carefully chosen political goals. The complex problem underlined by this contradiction is only tangentially explored: the cries for relevance, a socially-useful science have been met in the past with the notion of scientific objectivity and the necessity of pure research. Accordingly, the problem of relevance and responsibility is a complex one in the scientific community. It can always be argued that a research group often does not know what its experimentation will uncover. Yet many cries for relevance are genuine demands that abstract research procedures be scrapped in favour of a set of priorities which meaningfully reflect human needs. In this sense, the possible would probably not move so inexorably towards the necessary; and such morally unsound and practically useless projects as biological engineering would be scrapped by the post-technological consciousness.[6]

The interface between technology and politics raises another

question: what does this discussion of Zweckwissenschaft signify for any attempt to direct science and technology to human requirements? Can the state play a role in the redirection of technological priorities? This complex question of 'research in whose interests' illustrates the problems of Ellul's analysis of the role of the state. The radical critique of scientific research in the 1960's dispelled the myth of researchers' neutrality.[7] Ellul is critical of 'Zweckwissenschaft' while not focusing on the 'types of research' in modern science. As other observers have written, there is a distinct relationship between the organization of the scientific community, its relationship to external interests (military, industrial, governmental) and the type of research conducted. Whether we use the expression 'industrialization of science' or 'organization of knowledge', we are characterizing specific tendencies within modern society.[8] Instead of Ellul's formula, the question remains: what is the contemporary reality of scientific research. Either (i) the technostate directs research according to its own criteria; (ii) modern corporations and universities (in addition to the military, scientific institutes, hospitals etc.) are perpetrating their own commercial-military Zweckwissenschaft without anything but fiscal assistance from the state; or (iii) scientific knowledge 'progresses' by accumulation according to some inexorable internal logic. By not exploring the as-yet unclear relationship between these three phenomena, Ellul (in his later work as well as The Technological Society) avoids the major issues. In the organization of the knowledge-community there are some qualitative changes in the nature of scientific research. As discussed earlier, the process of institutionalization creates an organizational ethos which leads not only to the development of hierarchy but also to the blurring of causality and responsibility. (No one can explain why things happen; consequently no one is to blame).[9] According to this fatalistic fear of

organization, any process of determining criteria for research priorities or any attempt to formulate policies that disclose communitarian potential will succumb to the hierarchical tendencies of institutionalization. Yet the 'inevitability' of such a tendency can be met in part, as Ellul recognizes, by attempts to create zones of tension within the organization. A 'critical science' (expounded by Ravetz or Barry Commoner in The Closing Circle)[10] or the activities of a group like Scientists for Social Responsibility in Science do exactly that, forcing a discussion of the underlying questions of standards and priorities. Yet what remains unclear in the 'zones of tension' formula is the relationship to external forces of political power, i.e., the state, that these counter-technocratic groups should develop.

Ultimately questions such as whether pure research is wasteful cannot be decided without some specific knowledge as to the operation of the scientific process. It can be said, however, that in organizing the finances for research[11] the state inherently assumes the responsibility for establishing priorities. Whether or not a politically-responsible science policy can be effected must remain at this time a separate question (to be considered at a later date). Yet since it is by no means as clearcut as Ellul's analysis of the interface between science and society would have us believe, this also casts a deep question on the adequacy of Ellul's under-standing of the state in the technological order.[12]

The state's determination of policy is an attempt to address a specific set of needs. In the community of science, laissez-faire techniques largely rationalize the existence of non-decisions. The ideology of pure science means that the emphasis is on the possible rather than on the necessary. The criteria of new policies of scientific research could be the capacity to address satiable material needs. By conceptualizing material

needs as 'satiable', the political theorist undertakes a radical departure .
from the philosophies supporting contemporary modes of scientific research.

Planning: The Synthesis of Policy and Praxis in a Rational Society

Planning in a rational society requires the disclosure of community
within the existing structures. Ellul's thesis that post-industrial society
is characterized by the proliferation of spinoff consequences which render
purposive action impossible is based on the same dubious logic that was
discussed in the section in instrumental reason. He is saying, in effect:
since we cannot anticipate all the possible ramifications of a given inter-
vention in the world, we should refrain from any purposive action. Since
our calculations are fallible, and our actions must be pure, we should
limit ourselves to reflection, contemplation and faith. The problems are
complex, but Ellul defines them as impossible.

It must also be pointed out that attempts by the technostate to
coordinate society's activities have met with a notable lack of success.
This reveals another problem in Ellul's analysis: he fails to explain why
technique fails when it does. On the one hand, technique is described as
homogenizing, standardizing; on the other, it is obvious that there have
been widespread failures in the technocrats' attempts to impose their
rationalizing blueprints on society. Firstly, there are the very visible
manifestations of rejection hallmarked by the countercultural protests of
the 1960's. Secondly, there is the clash between the long-range require-
ments of modern society and the economic assumptions that underlie short-
range political decisions that Ellul fails to discuss. The post-industrial
political economy is predicated on the assumptions of a competitive market
system and the notion of man as consumer-appropriator.[13] The modern
Welfare State's involvement in the economy is inconsistent, based alternatively

on short-run adjustments and long-run econometric blueprints. The cumulative effect is that the economy is predicated more on principles of waste (conspicuous consumption, production for production's sake, job-creation programmes) than on any coherent strategy. The need for a rational allocation of resources conflicts with the contemporary tendency towards ad hoc adjustments.

Certainly this does not in itself invalidate Ellul's central assumption regarding the permeation of modern society by technique. However, it is possible that technique is failing within its own frame of reference. Technique may be the dominant characteristic of an entropic political system which, by virtue of its fragmented approach to social problems, is exacerbating them. The political actions of the technocrats, in this view, have little influence on the complex structures of post-industrial society. It is doubtful that the policy-making process of post-industrial states can be explained by the existence of a confluent and coordinated set of techniques. Ellul has overstated his valuable insight. The important question now becomes: is it feasible to suggest that decision-making in the modern state could exist by any other process than that which has been described as 'technocratic'?[14]

Statecraft in the modern context, then, must become either: (a) bargaining between units for a 'rational' tradeoff that potentially could be detrimental to all, or (b) a technocratic totalitarianism or carefully managed resource-planning (with the managerial implications of Buckminster Fuller's world-game plan). The latter may be the subtle predisposition of public opinion towards the technocracy by means of propaganda. Alternatively, (c) it may consist of a response to real or perceived crises (energy shortages, ecological catastrophes) as a result of which government regulatory agencies

would be given wide powers (for example, "there will be no construction here even though there is a high unemployment rate in this area because this zone is a 'green belt'"). Such planning styles as the latter would obviously contravene the basic tenets of democratic theory.[15] Yet the reduction of politics to an ineffective bargaining process between political units, subject to the influence of such factors as the relative economic wealth of the units is equally unacceptable. This problem of political economy underlies Ellul's thesis and will be explored throughout the remaining parts of this work.

Until recently, the centralized state was perceived as a means of equalizing the material basis of society. In this sense, it was opposed to the conservative tendencies which articulated the democratic merits of brokerage-pluralist policies. In the democratic socialist tradition, the state is perceived as providing the opportunity for the coordination of the otherwise random forces of economic growth. Also, according to the democratic socialist tradition, the state contains the legislative and the moral powers to offset the concentration of economic power. The under-lying logic of this myth is still of considerable importance today, and stands as a structured everyday argument to the logic of neo-anarchist decentralization. The confusion in perceptions of the state stems from the rapidity of its change of roles. The self-denying night-watchman of the early theories of the liberal state has become the twentieth century regulatory state, reinforced by the ideology of consensus which stabilizes society and incrementalizes change.[16] This uncertainty as to the potential of the modern state facilitates the persistence of technocratic decision-making. The blithe and abstract rejection of the state as a means for political reform merely strengthens the forces of technique. As Harris

suggests, the modern state is an extension of a property-based political economy and a contract-based legal theory. Contemporary disequilibrium results from the fact that the nature of technique has rendered both concepts obsolete. Ellul deserves much credit for his role in focusing the debate on technique, the previously-discussed inadequacies of his formulation notwithstanding. Can there be a concept of the state which enables it to formulate policy that negates technique, as well as securing integrated community and distributing services? If such an image is possible, the perspective of neo-anarchism becomes unacceptable and unnecessary. However, such an image of the state is predicated on the possibility of its supporting poles of tension already existing in society.[17]

The technostate, of course, did not emerge suddenly. Its historical antecedents require exploration, something which Ellul fails to do. This is imperative for an understanding of the relationship between the technostate and new technologies. One of the most important questions to be examined empirically is why new technologies occur when they do. By relating the development of technologies to developments in science, the sociologist of science answers that critical breakthroughs are established by the accumulation of scientific knowledge. Yet as was demonstrated in an earlier section this fails to explicate the purposive dimension in the direction of scientific inquiry. Responsibility (to be a meaningful concept) must be understandable within a specific cultural environment. In a period of heightened ethical debates regarding scientific activity, the action of NOT deliberating about one's work is as purposeful an action as deciding to drop an atomic bomb on Hiroshima. Thus, the framework of inquiry is also of extreme importance to an understanding of the way in which new technologies are generated in the technostate. Jonas illustrates

how the emphasis has shifted in post-Baconian science:

> Under no Baconian pressure of coping with
> human necessity, which justified all previous
> technology - of the melioristic or creative short -
> would biological engineering be wholly gratuitous.[18]

The organization of society which leads to the translation of the technically

possible into the socially necessary derives from an orientation which

places high value on technical knowledge. Modern society (Democratic-

Liberal) is, within Gurvitch's descriptive analysis, a cognitive-system

which puts scientific and technical knowledge well ahead of other categories

of knowing in importance.[19]

> The promotion of scientific knowledge to first
> place can be confirmed in several ways. First, it
> was generally acknowledged that all technical knowledge
> was but a practical application of science. The same
> thesis was advanced with regard to political knowledge
> particularly that which was formulated in doctrine, or
> at least in party programmes. We shall observe, when
> we analyse these two types of knowledge, that this
> almost unanimous conviction is far from being verified
> by the facts, and that we should see in it merely the
> expression of the exceptional prestige enjoyed by the
> sciences in this cognitive system.

Gurvitch's cognitive-systems, as Foucault's epistemes, are

attempted descriptions of prevalent consciousnesses in a given era. What

Gurvitch's work enables the theorist to do is to explore the relationship

between the 'prevalent consciousness' and the interests of a particular set

of political and economic elites. In this manner, the operation of forces

in the technostate can be better understood, and suggestions for their

countering more critically evaluated. To the technocrat, the modern state

possesses a capacity to produce an equilibrium within society. The state

is the means by which an integrated system of techniques can be projected

onto the society. In the post-industrial world, this is seen as a compensation

for the fragmentation of the social order. This hope for the avoidance of

disorder in the process of reintegrating society is the hallmark of the
end-of-ideology theorists.   In this view, the state is transformed from a
concrete embodiment of spirit into a reification of human instrumentality,
an abstract cybernetic calculator of interests and creator of consensus-
building formulas.   However, it is imperative to maintain a comparative
perspective on this trend in order to examine the ideological factors which
have supported this view of the state.

If Ellul's analysis is correct and the post-industrial state
(whether liberal democratic, Communist, or social democratic) is imbued
with the ethos of technique, then it follows that there is scarcely any
alternative to the wholesale dismemberment of the state by whatever means
possible.   However, the role of technique cannot be considered in isolation
from other political factors.   Has the technological order resulted in
a loss of the state's efficacy, contrary to Ellul's theory?   Certainly,
this argument at least merits serious consideration especially given the
proliferation of a non-interventionist political philosophy.   (In the
guise of Nixonian conservatism, and its ideological counterparts in the
Heath and Pompidou governments, for example.)

Ellul's confusion with regard to the state is a direct function
of his confusion with regard to the differences between instrumental reason
and technique.   It is impossible at this juncture to explore fully how
the concept of a rational society[20] can integrate individual perspectives
into a coherent social policy.   However, it is extremely important to
distinguish between different types of reason.   In The Domination of Nature,
Leiss discusses this with respect to the work of Horkheimer:

. Horkheimer differs from Nietzsche in
attempting to distinguish two basic types of
reason. Although in themselves all structures
of logic and knowledge reflect a common origin
in the will to domination, there is one type of
reason in which this condition is transcended
and another in which it is not: the former he
calls objective reason, the latter, subjective
reason. The first conceives of human reason as
a part of the rationality of the world and regards
the highest expression of that reason (truth) as an
ontological category, that is, it views truth as
grasping the very essence of things. Objective
reason is represented in the philosophies of Plato
and Aristotle, the Scholastics and German idealism.
It includes the specific rationality of man
(subjective reason) by which man defines himself
and his goals, but not exclusively, for it is
oriented toward the whole of the realm of beings;
it strives to be, as Horkheimer remarks, the voice
of all that is mute in nature. On the other hand,
subjective reason exclusively seeks mastery over
things and does not attempt to consider what extra-
human things may be in and for themselves. It does
not ask whether ends are intrinsically rational but
only how means may be fashioned to achieve whatever
ends may be selected; in effect it defines the
rational as that which is serviceable for human
interests. Subjective reason attains its most fully
developed form in positivism.[21]

The capacity to formulate alternatives to existing institutions

is a basic characteristic of modernity. Correspondingly, the idea that

instrumentality can be extended through organization has consolidated

collectivist social movements. Similarly, the subjective reason described

by Horkheimer mutates into technocratic rationality, based on an ideology

of control and order.[22]

Ellul is correct insofar as the dominance of technocratic

rationality has distorted the capacity to act as an individual. Deprived

of its purposive dimension, action is reduced to frenetic activity,

expressionistic politics. It conforms to style or disruption or psychodrama

rather than being the means to the attainment of a certain plan or vision.

Therefore, the modern world is replete with examples of ineffective violence like Black September and the willingness of student revolutionaries of Paris May 1968 to allow their 'revolution' to dissolve into pure expression or theater. The potency of modern man has been misinterpreted as his ability to create ex nihilo a utopian order; to deny the existence of nature and tradition in the process of historical change. The strength of instrumental man, primarily his capacity to negate and to plan has been diffused into frenetic attempts to fabricate ersartz apocolypses. A morally effective theory for post-industrial society must perceive the necessity of disclosing the communitarian potential inherent within a given social structure rather than attempting to construct the new ex nihilo. In the technocratic world-view, instrumentality has been reduced to manipulation and the imposition from above of an ideological blueprint. Means must be found to restore the concept of 'instrumentality' to its original meaning.

Accordingly, it is important to develop an organization which is not susceptible to the exigencies of technique. The maintenance of an intense level of moral fervour is an impossibility in politics. It is doubtful that any serious examination of the subject could find it desirable. The question of permanent revolution is hardly novel to modern politics. The utopian portrait of a permanent cultural revolution is still a remote and naive suggestion. Yet it is equally inaccurate to suggest that all methods of institutionalization are the same and that routinization is endemic to any process of social change.

Since the post-industrial state is predicated on the assumption that reality can be changed, that planning can be effective, governments are held accountable for economic failures and social malaise. In this sense (one neglected by Ellul) all is politicized through a form of scapegoat

effect. Yet this phenomenon serves to reinforce the elitist tendencies of modern institutionalized democracy. By locating responsibility in such abstract terms, it obscures the fact that there can only be democracy when a citizen exercises a role in the totality of the decisions that effect his everyday life. Then he will participate in regulatory agencies, industrial activities, licensing procedures and community planning.[23]

The realities of post-industrial society require an attempt to construct a political theory somewhere between socialism and neo-anarchism (as Barrington Moore suggests, discussed below in the section on centralization). Any theory of action consistent with such a new political theory must transcend the feeling of impotence that characterizes most reactions to the scale and complexity of modern society.

Ellul unnecessarily limits his creative insight about the functioning of creative poles of tension. His response, phrased in terms of radical subjectivism, and the personalization of ethics, is a desperate attempt to escape from the ambiguities of collective action. It encourages the response of alienated individuals to a technocratically-integrated society which has propagated and reflected a false consensus. As a response to this situation, radical subjectivism offers an illusory potency by constructing a dream-reality with which the individual can more easily cope. Within this new reality, the individual can create an artificial sense of identity.[24]

How can the state respond to these 'existential' dilemmas, accentuated as they are by modern technological reality? The question remains as to whether the state should attempt to. Perhaps the function of the state should be restricted to questions of economic and legal justice. Yet, under

certain circumstances, the state can reflect those norms which activate
tendencies contributing to the development of community.[25]

For Ellul, it is inconceivable that the state can play this role
is the disclosure of community. Having rejected the notion that democratic
participation and planning can be rendered compatible. Ellul fails to
explore alternatives to the technocratic forms of planning.[26]

A theory of democratic planning which seeks to disclose community
confronts the necessity of reconciling long-range and short-range goals plus
local and global needs. A new framework of planning must be evolved accord-
ingly. If each policy is simply a tradeoff between groups (as developed
through a rational bargaining-system for distributing public goods), then
what criteria can be posed for the construction of a community of interests
between these groups? How does a policy (plan) reflect or demonstrate
that a community of interests exists between a region and the ecological
whole? For example, how could a policy be devised to demonstrate such a
community of interests existing between an auto industry worker in Oshawa
and a fisherman in a Newfoundland outport? The problem is a fundamental one
of modern politics, where the state initiates large-scale economic planning
as a matter of course. Regardless of the specifics of this example, though,
it seems that most planning theories have failed to disclose the inter-
relationships and communities of interests that exist between different
groupings in a linked economy. The conceptualization of planning as a trade-
off between bargaining groups inherently precludes such a planning theory.
This is not to say that a harmonious reconciliation of diverse interests
is always feasible; the notion of the attainability of a perfect consensus
is, of course, a keystone of the technocratic worldview.[27] In practical
terms, how is such a community of interest disclosed? Can it take place

without a globalist plan, redistributing resources according to need,

instead of according to the unequal exchange of international bargaining?

More importantly, for the present examination, will such a procedure, if

it is possible, render democracy unfeasible, as Ellul argues?[28] It must be

demonstrated in practice that democratic procedures can be maintained and

utilised for the balancing of interests and goals. The liberal democratic

state with its adversary legal proceedings and its potential for the

guarantee of civil liberties could provide the framework for the reconciliation

of such conflicts if zones of tension outside the institutions remain dynamic

forces. In that framework, perhaps, Leiss' conditions for the liberation of

nature could be met:

> The secular foundations for the mastery
> of nature in this new sense would be a set of
> social institutions in which responsibility
> and authority are distributed widely amongst the
> citizenry and in which all individuals are
> encouraged to develop their critical faculties.[29]

Thus, through a legislative program which consciously negate

technocratic priorities, the state could create circumstances in which

it is less likely that there will be widespread alienation. However, the

state's primary goals cannot be psychological, for that would represent

just another form of social engineering. The notion of a therapeutic state

is another variant of technocratic thought, this time mutating the science

of psychoanalysis into an agent of control. The state can mobilize anti-

technocratic forces as part of an overall social policy (e.g., day-care

centres, emphasis on community health clinics, etc.); also symbolically it

can provide a moral fulcrum for cultural and personal initiatives. However,

its prime responsibilities are economic and legal. Attempts to intervene

therapeutically in the behaviour of its citizens are replete with totalitarian

implications.[30]

From these observations it is apparent that most discussions of the modern predicament miss the point that initiatives at the state level are directed towards different goals and predicated on different assumptions than cultural action. An awareness of this difference is a prerequisite to a theory which acknowledges the potential reciprocity of cultural action and state policy. Only in this way can the facile arguments of the de-centralization-centralization debate discussed above be transcended. For it is apparent that the centralizers are concerned with economic and ecological goals, and the decentralizers with personal and cultural ones. A theory must be developed which emphasizes the interrelationships between these two levels of analysis. The process of intervening to activate certain social forces must understand the necessity of acting at both levels and such an understanding must be developed in a theory to counter the prevalent technocratic logic. Action at both levels is required for an effective transformation of the technological order and a guarantee that policy will not become technique and that the cultural resistance to technique will not be naive.

Synergetic praxis provides a useful conceptual framework for the discussion of an alternative mode of theorizing. As a counter-philosophy to technocratic ideology, it maintains the necessity of initiating both cultural and economic action. Synergy focuses on the necessary inter-relatedness of all human activities.[31] The concept of praxis maintains an emphasis on the possibility of organizing our collective instrumentality to activate certain forces and accordingly to implement new priorities.[32]

Thus the classical formula of democratic theory must be restated in the form of a relationship between initiation and participation, policy and praxis.[33]

Ellul's dismissal of the possibility of a coexistence between planning and democracy reflects his persistence in using a vocabulary which dichotomizes centralized statism from decentralized federalism (community organization). It further reflects his expectation of a perfect political formula for the reduction and adjudication of conflicts, a streak that he shares with the technocrats. As a political theory, this can lead only to disillusionment or totalitarianism.

Firstly, it is important to discuss the formal administrative aspects of decentralization. The question of centralization-decentralization as a theoretical problem reflects at a theoretical level the inability to perceive the reciprocity between cultural and economic initiatives. At an administrative level, it rests on the notion that if power exists at the centre, then it must be reduced at the periphery. There is no evidence to support the assumption that as communities become more active, they drain power from the central authority. In fact, the logical argument suggests that as the political life of the local groups becomes more active, power (defined in the sense of the capacity to achieve objectives) is increased throughout the political grouping. Political scientists will point out the dangers inherent in premature mass mobilization, but that particular argument is irrelevant to a discussion of advanced industrial society.

In two senses then, the logic of the dichotomization of de-centralization and centralization is dubious. In the first sense, (cultural versus economic) it is demonstrable that the argument is about different and complementary objectives. In the second sense (administrative diffusion), it is demonstrable that activity at the local level can strengthen central power. Thus, the attempt to act at one level (either through the state alone, or through poles of tension alone) without developing a theory that

accounts for developments at the other level will ultimately be self-
defeating.[34]   In this manner, it can further be demonstrated that a community
of interests exists between the ecological or economic planner (concerned
with the development of a rational political economy) and the communitarian
neo-anarchist (concerned with the development of a participatory political
culture). A disclosure of such a community of interests will not produce
a conflict-free perfect social order, but might form the basis of a
realistic political theory for fallible but democratic men.

Ellul's representation of the state reflects this conceptual
confusion. It is important to focus on the role of the state in countering
technique, and the random proliferation of technological forces.

Democratic Theory and Post-Technocratic Politics

The crisis of democracy is located by Ellul in the development of
a technocracy, the diffusion of propaganda by modern communications and
the political illusion of the reconciliation of planning and democracy.[35]

The relationship between intellectuals and the hierarchy of
power has received much examination in the last decade. Chomsky's indictment
of the new mandarins and Ellsberg's attempts at public atonement have
refocused the question of meritocracy.[36]   Expertise in particular subjects
is undeniably important to creative policies for the amelioration of
certain conditions. The question is again one of the manner in which
intellectuals use power. The question is primarily one of the accountability
of the meritocrat to the people effected by whatever decision he is advising
on and the manner of the interaction between them. A body of literature is
growing up with regard to the effect of advocacy planning, community health
clinics, neighbourhood legal offices etc. In terms of the availability of
particular skills, these new tendencies are of tremendous importance. In

terms of new tensions, they create major debates within the respective communities of interest (as distinct from communities of place). However, such tendencies are not taking place outside of a framework of state influence. Government policies can be conducive to the development of such counter-technocratic trends, or they can destroy them, by withdrawing funds on legitimity (certification, e.g., bar exams).[37]

Whether these pressure groups can serve as the poles of tension around which a creative politics can be constructed remains to be demonstrated. The task of a political theory is, at least in part, to demonstrate how creative pluralism can replace standardization and how these counter-technocratic forces can be supported without succumbing to the exigencies of technique. However, Ellul's rejection of t.e state as an effective arena for democratic politics is predicated on his analysis of the modern state, which shares many of the deficiencies of his analysis of technique in general. He lacks (i) an exploration of the historical roots of the technostate, and especially the relationship between the state's actions (legislation, law) and the cultural factors (consciousness); (ii) a theoretical examination of the role of the state with regard to instrumentality and how that conception of the state has changed in the modern world. The first deficiency results in Ellul's failure to explore the dynamics of social change which could integrate action at a cultural level (the decentralizing forces) and action at a structural level (the centralizing forces). Consequently, a potentially brilliant insight remains undeveloped.

What exactly, according to Ellul, constitutes a 'pole of tension'? This is never really developed. Certainly, at first glance, it appears to be similar to the philosophy of the counter-culture represented by the American New Left in the mid-1960's. Significantly, Ellul, who has at

different times been branded a reactionary conservative, an anarchist primitivist, and a New Left social theorist, was widely popular among this group. It was a popularity which Ellul found necessary to denounce along with the movement which he found to be 'irrational'. The counter-culture lacked the capacity to question and the uncompromising individualism which apparently was to be a prerequisite for an authentic 'pole of tension'. The importance of his concept of tension is reiterated in 'Between Chaos and Paralysis':

> This individual (the one who does not lend himself to society's game) must make a radical diagnosis of the situation, must live in ever re-newed tension with the forces of society. But at the same time he must watch himself lest he play a superficial game. Thus the hippies do not at all have the needed orientation. Strictly speaking, the hippies question nothing, but limit themselves to attempting to destroy forms that are already peripheral and indeed do not exist save insofar as the technico-economic infrastructure of society exists. The hippies can exist only because out-side their ranks there is a society that functions, works, administers and so on. They are as it were the human product of that very super-luxuriousness of society that must be resisted.[38]

Nowhere is Ellul's conceptual difficulty more transparent. If modern society is qualitatively different, then we are all 'human products' of super-luxuriousness, Ellul too. The leisure for reflection and contempla-tion is a luxury that is not shared by a cholera-infected Bengali. Ellul's philosophy of praxis consists of living in 'renewed tension with the forces of society'. It means 'resisting' the technocratic determinants of the modern social order. Ellul's analysis wishes for a notion of individual autonomy which is 'post-modern' in itself.[39] According to Ellul, our greatest hope lies in 'the revival of citizenship, a reawakening of the virtues of individuality, and the cultivation of democratic human beings.'[40] These are noble aspirations, and, as was stated in the previous section,

essential ones. Praxis requires both a restorative and a purposive dimension. This does not mean that the cultivation of democratic virtues IN THEMSELVES is not an important aim. But does the cultivation of these virtues necessarily preclude the possibility of being instrumental?

Political activists scoffed at such developments as 'back-to-nature' communes as being privatizing. They were correct insofar as a theory based solely on such actions would be grossly insufficient. [41] However, such criticisms were themselves representative of the over-politicization that Ellul criticizes. That line of argument expects everyone to 'act' in some way or another. (But visibly.) It is tantamount to the frenzied, guilt-ridden, and futile rage for participation on the part of intellectuals signing petitions against every known injustice. Surely what is needed is an analysis that explores the socio-economic potentialities of such 'spontaneous' negations of technocratic values. [42] These questions of theory must be explored; yet Ellul's attempts are more personal. The perpetual recurrence of the religious theme leads to the position that the ethical is simply a personal expression of the sacred. Worship, the bearing of an authentic consciousness becomes the only acceptable (non-instrumental) mode of action. [43] The question remains, however, whether such means are the only moral and appropriate ones for the eradication of the technocratic mentality.

Accordingly, the responsibility of contemporary political thought must be to construct a new framework for inquiry. Many questions of democratic thought remain unchanged: what is the correct attitude towards a conflict of values? What are the means of limiting the state's powers? [44]

Two responses provide a background for the contemporary debate.

The holists (including Buckminister Fuller and other systems theorists, including many Marxists) view the world as an integrated whole. As such, the ensuing interrelationships between groups requires centralized coordinated policy-making. The second group (including Ellul) are those whose concern is primarily the devolution of complex societies into more communitarian political groupings. The first approach cannot escape from the contradictions between their humanitarian intent and their use of a technological vocabulary. Ellul has adequately demonstrated the tendencies of the technostate, if not its causes. Yet, in concrete political terms, the second alternative is plainly unrealistic, and, as such, not good theory. Certainly it is naive to continue to suggest as some Marxists do that control of the means of production will alleviate human misery.[45]

Accordingly, the emergent political theory must reemphasize associational contacts as a constituent element of democratic thought. Similarly, the futility of attaining political change solely through the apparatus of the centralized state has been dramatized by Ellul's examination of the technostate. The difficulties of an examination of the role of 'the state' are compounded by the lack of a clear consensus as to what 'the state' is and is supposed to do.[46] Insofar as he is concerned with power and order, the modern technocrat is merely using an extension of Machiavelli's statecraft. If the state is to be judged by criteria other than 'systems maintenance', then the assumptions of the technocracy are largely invalidated.[47] The technostate continues to be a welfare-state which ostensibly guarantees the physical well-being of its citizenry. Thus, its ideology consists of more than just the maintenance of social stability. Even though the process of welfareism is often paternalistic, it reflects a value of the technological order which if unfulfilled could mobilize

widespread discontent.

Without a clear consensus as to what the state is, should be, or could be, it is difficult for Ellul to focus his criticisms on its operations. Before returning to the question of technocracy and its challenge to democratic theory, it is important to examine the question of whether the state has become a 'prisoner of technique' or whether it is endemic to the operation of 'the state' that it operates in a technocratic manner in the modern world. Is the creation of the techno-state limited specifically to developments within the western tradition?[48] Yet the question persists as to whether he is confusing technique with politics and so reducing his argument to the dubious solecism that man's capacity to plan, when distorted, can become technique and can pervade a social ethos.[49]

Ellul refers to the conjunction of the state and technique as the most important phenomenon of history.[50] He outlines several causes for this interrelationship. Briefly annotated, they are that:

> (i) the state is intervening in areas where it had not previously been involved;
>
> (ii) the applications of technique are extremely expensive
>
> (iii) there has been a transformation of the role of the state amongst those involved in government

This analysis is especially interesting in light of Ellul's statement that:[51]

> In spite of the frequent mention of Machiavelli's Prince, the truth is that until the beginning of the twentieth century no one ever drew on the technical consequence of that work. What existed then was a kind of original chaos in which the man of genius always outclassed his adversaries because they never

> had at their disposal a technique which sufficed to
> redress the balance. The beginnings of a political
> technique had to await the appearance of Lenin. And
> even Lenin's political technique in many respects had
> to be based on certain other techniques which he did
> not have at his disposal; for example, techniques
> for obtaining scientific knowledge of the masses and
> the modes of action applicable to them, techniques
> of temporal and spatial coordination, techniques of
> strategy, and social techniques on a global scale.
> All of these are only today in the process of being
> elaborated.[52]

Ellul has detected a philosophical congruence between the

origins of technical activity and the origins of instrumental politics.

The work of the Frankfurt School will explore this theme.[53] However, Ellul

has failed to accurately focus the question again. The western path to

modernity has produced (i) a technology which fails to disclose the energy

within nature and accordingly to utilise resources in a manner which

respects ecological principles, and, (ii) congruently, has produced a

manipulative, fabricating politics which instead of disclosing the

communitarian potential inherent in structure (culture) seeks to either

secure or remake the existing order. The mechanism of the technostate is

an extension of this trend in ideological terms whether in a liberal

democratic or a Marxist state. The contention of this critique is that this

is a single form of instrumental politics, and in Ellul's criticism of

these technocratic trends, he is prepared to reject anything remotely

suggesting other forms of human instrumentality. In this regard, he is

like too many of his disillusioned fellow-moderns.

By failing to distinguish welfareism and social democracy from

technocracy, Ellul fails to develop his analysis of the causes of the

technostate, the social origins of the transformation of charity into

bureaucratic management. Stakhonovite and Taylorist become indistinguishable

in terms of their activities. The two tendencies which should be of

concern to Ellul and are ñot impede his sociological investigation.
These are: (i) the social origins of the technocracy; (ii) the manner
in which the application of technological innovations has effected the
conduct of politics (e.g., television, mass communications). The problems
of the welfare state must be understood also in terms of its achievements.
On this point, Alvin Gouldner's analysis in The Coming Crisis of Western
Sociology deserves quoting at length:

> Sociological Functionalism's emphasis on the
> role of moral values and on the significance of
> morality more generally, often leads it to locate
> contemporary social problems in the breakdown of the
> social system; for example, as due to defects in the
> systems of socialization and as due to their failure
> to train people to behave in conformity with the
> moral norms. To that extent, also, Functionalism's
> accommodation to the instrumental and technological
> emphases of the Welfare State must be tensionful,
> requiring considerable internal readjustment in its
> own traditional theoretical emphases. Moral
> conceptions of social problems may lead to new programs
> of education or training or even to an emphasis on the
> importance of more effective police systems and
> punishment. But this moral vision of social problems,
> however, does not readily lend itself to the instrumental
> management of adult populations in industrial societies.
> It is, rather, technological conceptions of and
> solutions to social problems that tend to proliferate
> with and are demanded for the development of the Welfare
> State. The Welfare State becomes infused with technol-
> ogical approaches to social problems and becomes
> increasingly staffed by liberal technologues. It
> becomes the centralized planning board and funding agent
> for numerous ad hoc technological solutions to modern
> social problems; these, in turn, are congenial to the
> working assumptions of bureaucratic elites and the
> technostructure in the private sector as well. On one
> of its sides, then, Functionalism, as a social theory,
> with an embedded vein of social utilitarianism, can and
> is ready to adapt to the Welfare State; on another of
> its sides, however, as a theory with a focus on morality,
> it may be expected to have difficulties in adapting to
> the technological and instrumental emphasis of the
> Welfare State.[54]

This analysis is a much more sophisticated approach than the
one offered by Ellul. Ellul cannot examine the relationship between

interests, industrial bureaucracy and the technocratic ideology, an immense task which Gouldner undertakes with competence. Indeed, to return to an earlier point, Ellul has difficulty explicating the philosophical premises of technocracy.[55]

The monism of technique results from the linking of standardization with the imposition of a from-the-top-down consensus. It is with regard to this theme of the 'totalitarianism of technique' that Ellul prompted the greatest favorable response amongst New Left adherents. For Ellul, as discussed in the previous section, propaganda serves a similar 'integrative' role in a democracy as it does in a dictatorship; similarly codified law is an agent of formalization and standardization. However basic political cleavages may appear to be in the technostate, it seems, the underlying societal assumptions remain unaltered.[56]

What is the role of the state vis-à-vis the development of the technological apparatus? According to Ellul, the modern state operates in the following way which, inferentially, is why modern bureaucracies perpetrate inappropriate technological solutions to social problems and the equation of the possible and the necessary in technological 'progress' seems inexorable:

> The basic effect of state actions on techniques
> is to coordinate the whole complex. The state
> possesses the power of unification, since it is
> the planning power par excellence in the society.
> In this, it plays the true role, that of coordinating,
> adjusting and equilibrating social forces. It has
> played this role with respect to techniques for half
> a century by bringing hitherto unrelated techniques
> into contact with one another, for example economic
> and propaganda techniques. It relates them by
> establishing organisms responsible for this function,
> as, for example, the simple organs of liaison between
> the ministeries. It integrates the whole complex of
> techniques into a plan. Planning itself is the result
> of well-applied techniques, and only the state is in
> a position to establish plans which are valid on a
> national level.[57]

It must be noted that coordination, adjustment and equilibrium are not synonymous. As will become clear in later arguments, the coordination of divergent activities is the prerequisite to any attempt to negate the technological order. (The idea that there should be an equilibrium between social forces is distinctly an ideological precursor of technocratic consciousness.)

Centralization and Decentralization: A False Dichotomy

Ellul's theme that centralization is inevitable in the modern era deserves close attention. It is by no means axiomatic that the concentration of significant amounts of political power reduces the richness of political participation at the base of the polity. Nor is it axiomatic, as the management systems theorists suggest, that centralization brings about more effective control. Consequently, the key issue for contemporary political thought must be related to styles of centralization and decentralization of political activity and organizational structures, most significantly, the state.

For most theorists of progress (development), centralization has always been viewed in highly positive terms. The recent remark of a Mongolian Communist Party official to a New York Times correspondent that Genghis Khan could be forgiven his class defects because he centralized the Mongolian tribes is indicative of this tendency. Certainly, in the early modern era, the centralized European state had a distinct economic advantage over the less-centralized state. Having explicated what appears to be an historical axiom, the political theorist must ask whether centralization and economic development are necessarily related. Then, the supplementary question must be posed: does the centralized technostate provide the basis for a creative political citizenship; is it adequate for

the needs of modern society?

Ellul's attitude towards centralization evolves from the French
experience. In a book review on propaganda,[58] McLuhan puts this provoca-
tively:

> Environmentally speaking, for example, the
> French exist in a land-mass that makes a great
> deal of centralism quite natural. French
> individualism is inseparable from the acceptance
> of a vast state bureaucratic structure that is
> regarded by them as the natural enemy of all
> mankind... The English, in their maritime structure,
> are entirely decentralist by tradition and outlook.
> They fought Napoleon's effort (his 'continental
> system')...
>
> Now the paradox of the electronic age is
> that it creates an environment that is total but
> also decentralist. Jacques Ellul is quite blind
> to the decentralist aspects of the instant
> electronic culture. A true Frenchman, he sees
> the electronic or technological society as a
> hideous enlargement of centralist bureaucracy, just
> as he is sure that the same electronic culture is
> an extension of the machine...
>
> It is also true that the most mechanized and
> centralized societies are those least able to make
> an easy transition to electronic culture. The
> specialist and bureaucratically organized societies
> have more to liquidate and unlearn than the Orient,
> for example...

Without necessarily agreeing with the totality of McLuhan's neat
analysis, one can appreciate his criticism that Ellul lacks a certain
sensitivity to the relationship between centralizing and decentralizing
tendencies in modern society.[59] Two questions are crucial to this section:

> (i) Does Ellul's presentation of centralization
> and decentralization, so typical of
> contemporary thinking in its simple opposition
> of these two words,[60] adequately reflect the
> theoretical possibilities? Ellul cannot be
> blamed for sharing such a widespread linguistic
> concept. However, it requires a much more
> substantial examination before his neo-anarchist
> conclusions are accepted.

(ii) Does a radical decentralization of society,
implicit within Ellul's analysis, contain
any hidden dangers? For example, would the
widespread tendency to turn the possible into
the necessary be averted by radical de-
centralization? Or would it be more desirable
to construct an institutional framework more
conducive to the negation of this modern tendency?

Ellul's development of this theme alters somewhat in the decade

between The Technological Society and The Political Illusion. In the

former, he writes:

> Decentralization, then, has experienced a radical
> setback. Economists who have analysed this setback
> conclude that in order to decentralize industrially
> it is necessary to effect total decentralization,
> including administrative, financial and cultural
> decentralization. Total action, however, would be
> difficult to achieve; precise and adequate technical
> motives for it do not exist. Furthermore, it would
> have to be implemented by authoritarian measures.
> The state would have to act to constrain the citizens
> with authoritarian penalties corresponding to
> authoritarian decisions. It is easily seen that the
> proposed decentralization would have to rest upon a
> major aggrandizement of centralized authority.

In this passage, Ellul astutely pinpoints one of the major

problems of any large-scale decentralization based on devolution of

authority as distinct from federation. In The Political Illusion, Ellul

offers one of his more original suggestions:

> The point is not to give free reign to a
> state that would no longer encounter even the
> obstacle of an illusory public opinion, but on
> the contrary to erect in the face of the state
> a rigorous arbiter whose several poles of attraction
> would force the state to adjust itself to them.
> The point is no longer to orient all channels of
> public action in the sense and direction of the
> state, in the way our railroad network is oriented
> toward Paris. This does not mean at all that we
> must rediscover local autonomies. It would be
> illusory to go against the trend of the times. When
> labour unions increasingly enter the state's unitary
> structure there cannot be any question of asking them

to rediscover the seriousness of their mission. Unions
were, in their time, definitely poles of tension - in
France, for example, between 1880 and 1906.62

Below, Ellul states that above all we must not ask the state

to help us. His proposal, he admits, might not work, but it requires

trying because it is the only possible alternative. In this passage,

Ellul has focused our inquiry. In the technological society, what are

potential poles of tension and how are they mobilized? What is their

relationship to the state, and how can we demarcate the zone between

cooptation and constructive assistance? It is important to ask the

question: if wholesale decentralization were feasible at this moment,

what would its effects be? Edmund Leach's[63] anthropological studies of

the tribes of highland Burma have indicated that cyclical tendencies exist

between periods of federation and fragmentation. It is possible that a

global system will similarly oscillate between periods of formal centraliza-

tion and formal decentralization. However, what is of most importance to

an analysis of the dynamics of social change is the tension between the

center and the intermediate groupings at any given moment. In another

important piece of political theory (which similarly to The Technological

Society has predominantly been characterized as pessimistic), Barrington

Moore questions the structural limitations of syntheses of ideas within

such categories as capitalism, socialism and neo-anarchism. His critique

of the neo-anarchist solutions is particularly relevant to the present

discussion, as is the implication that thinking within the confines of

such categories limits our capacity to grasp the essential problems of the

world-system:

> The degree of feasible de-industrialization might
> turn out to be the hardest question of all to answer
> in a way that would command assent even among neo-
> anarchists themselves. It is obvious that no modern

city can grow enough food to feed its inhabitants
and that exchanges with the countryside are
necessary unless one is willing to exterminate
the inhabitants of the city. These exchanges can
be governed either by market relationships or by
centralized allocations of goods and services (or
some combination of the two) both of which the neo-
anarchists reject as basic principles of social
organization. The same basic consideration applies
in connection with the differential endowment of
neo-anarchist communities with natural resources.
Suppose that some community is able to produce some
good, say lettuce or oranges, that other communities
badly want or need. Can one realistically expect
that a new ethic will take such strong hold that the
fortunate community will not try to exploit its
advantages? And by what criteria could one decide
that it was not trying to extract the most possible
from this advantage? Once again we are left with the
choice of letting market forces have full play, which
amounts to refraining from applying any ethical standard
to the relationship, or else using some kind of force
majeure at the disposal of a central authority to impose
a pattern of distribution that was accepted on ethical
and political grounds by the rest of society. But both
these choices imply a form of society very different
from the anarchist ideal. For the latter to work there
is evidently necessary some sort of invisible hand that
is not Adam Smith's market, and certainly not the very
visible hand of the bureaucratic state.[64]

Moore's insights into the 'dead ends' reached by capitalist,

socialist and neo-anarchist theory in the modern world is useful for a

discussion of Ellul.[65]   Ellul and Moore, arguing from different perspectives

(and from different levels of achievement as practitioners of a social

'science') share a certain pessimism with regard to the fate of the modern

world. Is this disillusion nothing more than the inevitable reaction to

the realization that the universe is uncertain, political action is

ambiguous, and that there is not a single Archimedean point (even

theoretically) from which the entire world can be remade? This characteristic

of 'disillusioned utopians' requires that an examination of the role of

utopianism in political thought be undertaken, at least with regard to the

question of decentralization. The evanescence of utopian theory can never become concretized through the ambiguous mediation of human actions and institutions.[66] Yet utopian speculation is a prerequisite for a new consciousness in a world permeated by reductivist empiricism and the form of pragmatism which has produced modern technocratic consciousness. Utopian thinking, then, is the act of redirecting praxis away from the immediate contingencies. Certainly, the restoration of the self and the establishment of authentic relationships is praxis. But praxis must have both a restorative and a purposive dimension or it will surrender to a set of limitations that ultimately will seal its ineffectiveness. Ellul's 'utopianism' fails to acknowledge this.

But even though neo-anarchism serves an important 'corrective' role as a form of utopian thought, it cannot be seen as a plausible modern praxis. The logic of Moore's argument is accentuated by the ecological and economic relationships of the world-system. It follows, then, that it is necessary to rethink the relevance of these political categories for an analysis of post-industrial society. The question remains, however: given the persistence of traditions, how does one embark on a radical departure using the political institutions of a scarcity era?

Even on the utopian level, neo-anarchism requires examination. Wholesale decentralization at any given moment (treating the subject as a tendency, or a theoretical possibility) would result in the removal of the powers which are required for the redistribution of resources or the alleviation of regional disparities in a global political economy.[67]

Exponents of decentralization usually argue that a sense of participation and effective involvement essential to the psychic well-being

of the individual, can only be attained through the organization of society into smaller groups. Under scrutiny, it is apparent that this assumes that effectiveness can only be correlated to specific issues. If the issue is the allocation of non-existent resources, it is doubtful that this form of participation can increase a sense of psychic worth. Once the linguistic opposition of the terms centralization and decentralization is overcome, the possibility of reconciling these two tendencies in a meaningful community can be demonstrated. Ellul discards this possibility too quickly; and restricts his theory accordingly.

Technique and the Dynamics of Social Change

Ellul is correct in pointing out that the paramount problem for post-industrial society is the negation of technique. In practice, this also means the control of technology so that what is possible doesn't axiomatically occur. This is a precondition of a rational society. Technological innovations are not panaceas and technological solutions to political problems are demonstrably inadequate. Scientific progress does not exist if we mean by 'progress' a linear, accumulation-of-novelties effect. It is necessary to replace the idea of progress with the more political and less deterministic notion of potentiality.

Ellul's thesis is, as has been indicated inconsistent. At times, The Technological Society appears as a work attempting to explain the origins of evil in a world which God has created, which in many ways it is; but at other times, Ellul shares insights which are of undeniable importance.[68] At times Ellul shows an awareness of the contributions of technology and the beginning of a deeper examination of the problems he raises. For example, the following passage from Autopsy of Revolution:

Nothing short of an explosion will disintegrate
the technological society: that is a vital issue.
Whatever form the explosion takes (a federalist
community, or a self-direction hostile to planning,
for example) will involve, as always, a sacrifice. A
revolution against the technological society (not
against technology) implies decreased efficiency in
all areas (total yield, productivity, adaptiveness,
integration), a lowered standard of living, the
reduction of large-scale public programmes, and the
erosion of a mass culture. If we are unwilling to pay
the combined price of these four reductions, then we
are not ready for the revolution, the only revolution
that is a necessity today.

Such a distinction between spiritual and material values is

dangerous. Nowhere does Ellul explore other possibilities such as the

mobilization of groups who are implicitly or explicitly questioning the

rule of technique.⁶⁹

The origins and inadequacies of Ellul's praxis of radical

subjectivism has been discussed throughout this work. Ellul is uncomfortable

with many of his own conclusions, but the framework of his inquiry precludes

the possibility of alternatives. His discomfort is revealing and worth.

reiterating:

> Revolution cannot result uniquely from individual
> awakenings to the global nature of society. It is
> pointless to say that purely spontaneous revolutions
> have occurred in the past, or that man's continued
> social existence accounts for his semi-awareness.
> Yesterday is not today.⁷⁰

Ellul states that a revolutionary attitude must consist of the

replacement of frantic activity with contemplation.⁷¹   If this were read

to mean that contemplation must supplement action, it would result in a

substantially different conclusion. But Ellul writes:

> Individual initiative is often cited as a way
> of making the revolution a personal issue. All to
> the good. But today the usual effort is to arouse
> irrational, emotional, impulsive and erotic behaviour

in a chaotic, explosive, festive and totally
uninhibited atmosphere. The rationale advanced
is that if we are to combat a systematized and
stultifying society that negates individuality,
we should act just the opposite. But it is only
a facade. Such explosions have no impact whatever
on our society, which is perfectly capable of
integrating and absorbing the shock, devitalizing
it, diverting its thrust, and moulding it into a
compensatory system or safety valve.[72]

Ellul's notion of commitment is predicated on the limits of

personalism and situationism:

We must repudiate all appeals to irrationalism
and promises of liberation through the imagination,
for one ought not to juggle words and claim that
imagination is not the opposite of reason because
when imagination exceeds reverie or ecstasy its
results are enduring and constitute universal forms,
whereas reason, in order to be creative, must draw
on the imagination...

Irrationality is totally ineffective in
contending with our society and can only reinforce
the technoldgical system in one way or another. In
contrast, necessary awareness means greater self-
control; intellectual alertness, and persistent
determination. There is no place for delirium, only
for passion, determination and commitment.[73]

The critique of counter-cultural irrationalism is most perceptive.

Yet Ellul cannot develop the obvtous point that his 'reason' is very

different from the 'reason' of the technocrats. Ellul's remedies lack a

concrete dimension. That passion, determination and commitment are pre-

requisites of a more meaningful form of political action is indisputable.

The limitations of a subjectivist politics lie in the denial of instrumentality.

Thus any political theory which views personalism as more than a restorative

phase in the formation of a praxis reinforces the status quo.

Ellul's similarity with the 'consciousness theorists' ends with

these self-doubts and this rejection of irrationalism. Yet Ellul does not

explore the possibilities or the potential implications of fundamental

consciousness reorientations. Thus he is only correct in a limited sense when he writes:

> We attack nothing by taking this imaginary
> escape route from society. What is more, the
> escapism induces even greater adaptation, for once
> man has had his fling at freedom, he will accept
> other forms of restraint more readily. As a
> revolutionary act, it is totally sterile; it leads
> not towards greater freedom but away from it.[74]

A political theory which hopes to address the implications of technological consciousness in an effective manner must probe more deeply than does Ellul's personalism. Indeed, one of its major tasks is to create a new language of political discourse. This remains part of the task of reorienting consciousness away from the technological language of means-ends calculus and into the appropriate intersubjective language of the political. The creation of a new political language and other forms of cultural action are intrinsically limited; too often they are abstract and serve as an excuse to avoid the difficulties of concrete political situations. Ellul's use of history in his work is vague. He realizes its importance, as is clearly articulated in the following passage from Autopsy of Revolution:

> We have tried to approach the revolt-revolution
> complex through the data of historical experience,
> which is the only valid way to interpret it
> intelligently. But within that conceptual framework,
> (the pre-modern), what was found was an anti-historical
> attitude... Until the eighteenth century, on the rare
> occasions when the nature of revolution preoccupied
> such men as Machiavelli, Bodin and Hobbes, for instance,
> it was always with the intent of finding ways to prevent
> popular unrest, to maintain authority, to quell disorder.[75]

Yet against this sociological acknowledgement of historical understanding as being 'the only valid way to interpret (revolution) intelligently', Ellul is writing a work critical of the 'normalization of revolution'..

Normalization (Marxist theory) betrays the humanizing potential of the revolutionary (resisting) impetus by locating the revolution within history. Revolution, for Ellul, is not authentic unless it is resisting historical tendencies. The logic of Ellul's argument is that those who act within history, with a scientific understanding of its eruptions akin to a seismological understanding of geology, are not really revolutionaries. They surrender the freedom of their resistance to the inevitability of a social process. On the one hand, then, Ellul, the sociologist, praises historical understanding. On the other, Ellul, the philosopher, rejects the search for historical explanations. Nowhere in his analysis is it suggested that this understanding of history could be a prerequisite to the formulation of a critical perspective. Historical prediction is not seismology. The implicit assumptions of modern social science (especially Marxist variants) is that there is a recurring pattern of social forces in operation which can be interpreted by actors in a contemporary setting. The rejection of the historical examination is parallel to the rejection of instrumentality. Since we are not to be concerned with the transformation of society, or the amelioration of social conditions, we have no need for an historical understanding. Does an historical understanding necessarily mean the 'normalization' of social change? The logic of Ellul's argument here is structurally identical to his discussion of scientific standardization. The scientific enterprise does not mean (unless it is a very shoddy attempt at social science) that historical events can be predicted with the accuracy of volcanic eruptions. Ellul assumes that it does. Similarly, classification is not a product of the scientific mentality alone. Levi-Strauss demonstrates the universality of the classificatory enterprise in The Savage Mind. It remains to be explained how the relationship between action based on an historical understanding of the probable consequences of action A in context (a) means the surrendering of human freedom in any

sense of the word. Surely, the logic of everyday discourse dictates against 'such a statement as adequately as the language of scientific inquiry. At times, Ellul is prepared to concede that standardization and routinization are not synonymous, but this development on Weberian sociology is never incorporated into the totality of his work.

Certainly, the problems of historiography and futurology are not dissimilar. Both require the evaluation of decisions and actions against a background of man's historicity. Both assume a structural symmetry in historical experience. The latter assumption requires clarification regarding the supposed uniqueness of modernity. Just as it would be naive to suppose that action is the same concept today as it was in the sixteenth century, it is incorrect to assume that there is no connection. The latter argument can only be sustained through a complete denial of a human 'nature'. [76]

How does an understanding of history enhance our capacity to make rational, non-technocratic choices within the technological order? How, in political practice, is the balance between expedient needs, long-range goals and democratic procedures to be attained? For example, if a thousand people can be given ten years of income security as a result of jobs produced from the destruction of a forest (no other job alternatives are conceivable in this scenario; the only alternative is relocation), can the decision to harvest the forest be justified? By refraining from the exploitation of available natural resources in a world visibly suffering from scarcity, what logic can be used to justify the sacrifice of the current generations? The difficulty in responding to this and like-questions is not eliminated by an historical understanding, but it can be reduced. A rational society would not be able to allocate goods in a conflict-free manner; that has been established. However, it would be concerned with

the construction of a fair and distributionist economy, rather than the maintenance of a technocratic order concerned with process and mere survival.[77]

In coming to grips with the problems of using historical understanding in public choice, Ellul favorably quotes Camus in a footnote. Criticizing the implications of the establishment of a rule of history, endemic to Marxian theories, Ellul quotes L'homme revolte, in which is offered a much more substantive investigation of the point:

> History as a totality could exist only in
> the eyes of an observer beyond history and the
> universe. Only for God is there an utmost
> limit of history. It is impossible, therefore,
> to act according to plans embracing the totality
> of universal history. Every historic undertaking
> can only be an adventure, more or less rational
> and well-founded. It is a risk at the outset.
> As a risk, it does not warrant any excess or fixed
> and immutable posture.[78]

Yet Ellul's understanding of history fails to lead him to an historical methodology in approaching the subject of technique. He presents us with a sociology of technique, of law, and of institutions, and in the process excludes the complex question of causality. Is technocracy the inevitable consequence of the interface between technology and the modern state?

FOOTNOTES

[1] Leiss, The Domination of Nature, p. 111-112.

[2] Hans Jonas, 'The Scientific and Technological Revolution' in Philosophy Today, Vol. XV, No. 2, Summer 1971, p. 96.

[3] The telescope, of course, was to immediately change the nature of naval warfare. That perhaps was foreseeable, but the spinoff effects on shipbuilding, balance of military (and economic) power etc. ripple through a sociological inquiry. Lynn White's famous example in Mediaeval Technology and Social Change (Oxford University Press, Oxford, 1962) illustrates the effect dramatically. The happenstance introduction of the stirrup into Iberia in the 8th Century was not expected to effect the social structures in the manner in which White argues it did.

The whole question comes down to the key question of the viability of the concept of causal action. Can the stirrup be said to cause the transition in Iberian feudalism? Would it have occurred in any event? Retrospective determinism is a characteristic of too much historiography. But a certain hopelessness confronts any historical investigator if he replaces determinism with an admission of the significance of random events. It must be stated that real choices exist in historical moments, and that our concept of action becomes meaningless if this is not acknowledged. There cannot be action without a complementary expectation, intention.. At this point, it must suffice to say that Ellul's arguments with regards to consequences of techniques that cannot be anticipated applies logically to any and all human actions. His response is perhaps an extreme overreaction to the excesses of French existentialism.

[4] Ellul, The Technological Society, p. 311.

[5] Ibid., p. 317.

[6] A careful study of technocratic language might show some valuable insights. It is possible that the language of utilitarianism is frequently used as a justifying rhetoric for technocratic procedures. However, in reality, technocracy is not concerned with goals, even the pragmatic, short-run objectives that characterize much of modern utilitarian thought. Thus, even though technique is often couched in this utilitarian rhetoric, it is much more a mutation of original utilitarian insights. There are some moral assumptions in utilitarianism (inadequate, I would argue, but, nonetheless existent) which are erased by the emphasis on process and order implicit within technocratic reasoning.

[7] See particularly the work of Noam Chomsky American Power and the New Mandarins (New York, Pantheon Books, 1969) with regard to the role of scientists in the Vietnam war effort.

[8] See respectively Jerome Ravetz Scientific Knowledge and Its Social Problems (Oxford, Clarendon Press, 1971) and Leslie Sklair, Organized Knowledge (St. Alban's, Hart-Davis MacGibbon, 1973).

[9] Again this borrows substantially from the insights of Roberto Michels. More recently, work like Ivan Illich's Deschooling Society (Harper and Row, New York, 1971) as well as Paolo Freire's A Pedagogy for the Oppressed (New York, Herder and Herder, 1970) have focused on the difficulties of organizing and simultaneously retaining the original impetus of a movement. Insofar as these latter works focus on the possibility of effective action outside of the organization-styles of modern technological thought, they are of tremendous importance. They are responses at one level to the problems that Ellul raises about the inevitability of technique in organizations. To reiterate, technique, in some form is a function of organization; however, to state this and to fail to explore the circumstances under which technological logic becomes dominant is to miss the point.

[10] As expounded by Ravetz op. cit. or Barry Commoner in The Closing Circle: confronting the environmental crisis, London, Cape 1972.

[11] See Sklair's Organized Knowledge, op. cit., especially Chapter II on 'Big Science'.

[12] As a further point, the question of pure research and priorities remains a complex one. Who, for example, could dictate the impracticality of a pure science like astronomical physics when the ramifications of the new insights developed within this science have had marked effects throughout society?)

[13] See especially the works of C.B. McPherson, The Political Theory of Possessive Individualism (Oxford, Clarendon Press, 1964) and Democratic Theory: Essays in Retrieval (Oxford, Clarendon Press, 1973).

[14] This raises the important question of what the limits of the 'technical' in policy-making are. Consider the example of a rich community which questions the format of a revenue-sharing scheme? Is it meaningful to say that the criterion employed in the dispute was 'technical' and not 'political'? It is a truism of most post-industrial political theories that the nature of decision-making must be altered. But does this necessarily mean the expansion of the 'technical'? Is this inevitable when the paradigm of "spaceship earth" is used to replace the anachronistic conceptualization of market society as a basis for economic plans? See, for example, Kenneth Boulding's 'Economic for Spaceship Earth' in Beyond Economics: essays on society, religion and ethics (Ann Arbor, University of Michigan Press, 1968). In repudiating the notion of trading autarchies (see also below in the discussion of Barrington Moore and decentalization), we are also rejecting certain myths about the inevitability of economic man. See also George Dalton (ed.) Primitive, Archaic and Modern Economies: essays of Karl Polanyi, New York, Anchor Books, 1968.

[15] Similarly, of course, any attempt at world planning would present even greater problems for democratic theory, a point that shall be returned to later. The experience of such regional economic integration groups as the EEC reveals the problems of large-scale economic planning.

[16] See David Harris in his essay 'European Liberalism and the State' in Lubasz (ed.) The Development of the Modern State, (New York, Macmillan, 1964), especially p. 77 where he discusses the concept of the 'self-denying night-watchman'. The implications of laissez-faire non-interventionism have been standard fare in modern political science. A more substantive challenge to the theory of the modern state is offered by Gabriel Kolko in The Triumph of Conservatism (New York, Free Press of Glencoe, 1963). In the nascent stages of the corporate economy, he demonstrates the advantages for the development of monopoly capital of. piecemeal regulations.

[17] Certainly, the idea of the modern state assumes in everyday discourse its responsibility for the maintenance of services and the distribution of resources. That is the basis of the Welfare State. In this section, the debt to the sections in Georges Gurvitch's Social Frameworks of Knowledge (Oxford, Basil Blackwell, 1971) dealing with the rise of the liberal-democratic and centralized state will be obvious. Within this framework the interrelationship between scientific innovations, religious reformations, the rise of philosophical skepticism and the development of capitalism can be emphasized. Initiation in one area has ramifications in the others. Accordingly, the importance of a new vocabulary of politics will become clear in the discussion of the relationship between consciousness and culture.

[18] Hans Jonas, 'The Scientific and Technological Revolutions', op. cit., p. 99.

[19] Georges Gurvitch, op. cit., p. 190.

[20] See Jurgen Habermas Towards a Rational Society: student protest, science and politics, Boston, Beacon Press, 1970.

[21] Leiss, op. cit., p. 149.

[22] Technocratic rationality then appears as an extension of the calculations of 'rational' economic man, motivated by self-interest and a praxis which emphasizes mastery and manipulation. In discussing Ellul and the counter-culture, I emphasized Ellul's distaste for irrationalist movements, but nowhere does he develop his notion of rationality and its qualitative difference from the rationality of the technocrats. Thus his theory continually stumbles on the problem of comprehending organization. If perception can lead to instrumentality in the individual; similarly organized perception (theory) can lead to the capacity to actively transform society through the collectivity. Just as subjective reason in the individual can be mutated into technocratic rationality in the collectivity, a like-happening can take place with objective reason.

[23] For an interesting description of some of the problems involved in such a participatory democracy, see Michael Walzer's essay 'A Day in the Life of a Socialist Citizen' in Obligations (Cambridge, Harvard University Press, 1970). Even a widespread orientation towards participatory democracy will not remove the need for representational institutions and delegated authority. It is a distortion of the concept of citizenship to expect the citizen to spend the full day 'participating'. Hence, the notion of accountability remains important and it is accurate to say that the actions of demanding accountability may be the most

meaningful form of participation. As has been discussed above, the justification for the non-participatory tendencies of modern politics rests on a mixture of meritocratic and end-of-ideology arguments. 'Issues' are defined in a manner which excludes them from social considerations and places them outside the realm of dialogue and within the realm of expertise. Participation, to be meaningful, must, of course, not simply be issue-oriented, but must be an ongoing involvement in the choice of alternative futures.

[24] Within this context Rollo May's suggestion in Love and Will (New York, Norton, 1969) that the modern era is comparable to the Athens of the Stoics and the Epicureans deserves serious examination. Unable to handle the ambiguities of the political or communitarian condition in crisis and exacerbated by the exigencies of technique, man turns to apolitical perspectives.

[25] This does not necessarily mean a devolution of authority. The state could choose as a conscious policy to support the sources of tension within the society.

[26] Ellul's discussion of de Castro's Green Revolution is paralleled in a critique of Le Corbusier's failure in urban design. See his essay 'The Technological Order'. Le Corbusier, sensing that the modern city was characterized by isolation and loneliness, had attempted to design a city which would facilitate people's meeting one another. Ellul correctly notes that Le Corbusier's plan accentuated the very problems it had attempted to remedy. What Ellul fails to criticize is Le Corbusier's technocratic logic which prompted him to talk in a vocabulary of 'creating community', regardless of the desires and the culture of the residents. Again, Ellul's insight is reduced to the truism that all actions have some unforeseen consequences. Le Crobusier's attempt reveals some important problems: how realistic is an urban design scheme to 'build' community which deals solely with the mechanics of architecture? There are two possible responses: (i) that 'planning community' is nonsense; (ii) that we can facilitate the disclosure of community only with an increase of the understanding of the cultures and traditions involved. See Herbert Gans, People and Plans: essays in urban problems and solutions (New York, Basic Books, 1968). In a sense, the latter reply is facile: hire some community sociologists and the plan will work. There is, of course, no guarantee that the sociologists or the planners will be non-technocratic.

[27] It is evident that the philosophical origins of these two concepts are widely divergent. One stems from a contractual utilitarian basis; the other assumes that a community of interests is endemic to man's sociality.

[28] That does not mean that it can realistically be expected that a harmonious reconciliation of all social conflicts is desirable, let alone possible. Coser's work on The Functions of Social Conflict (Glencoe, Ill., Free Press, 1956) illustrates the necessity of conflict for a viable society. What is perhaps a reasonable goal is the type of legal culture where any citizen can make the agencies responsible for any decision account for that decision. In the context of the Oshawa-Newfoundland example, it means that those with legitimate claims on the political system

be treated fairly. As my argument that the state's role is inevitable,
and potentially positive, unfolds, it is hoped that a correlation between
accountability and fairness can be interpolated. However, there is no
attempt on my part to present this as infallible; it is merely a response
to Ellul's rhetoric. Any centralized decision-making agency must be
responsible to 'poles of tension', but it must also play a part in the
reallocation of political goods. An EEC agency must balance (and account
for the way in which it does it) the demands of Dutch apple-growers with
the Community's policy on apples. If this sounds like a traditional
appeal to a rational bureaucracy with appeal mechanisms, it is, in part.
The mechanisms (legal) for challenge must, however, legitimize the poles
of tension. It is here that the argument regarding cooptation becomes
particularly important. It is important to note that the argument becomes
less traditional when it is accompanied by the insight that this relation-
ship between accountability and fairness can only transpire in a framework
where economic power is not concentrated either in the manner of monopoly
capital or monopoly state capital, a complex problem far beyond the scope
of this effort.

^{29} Leiss, op. cit., p. 197.

^{30} It can be argued that the theoretical hallmark of the
classical liberal state is its refusal to do precisely this. Of course,
the interrelationship between the individual and 'economic and legal'
considerations is much more complex than presented in this paragraph.
However, the point remains that within the confines of democratic theory
neither Babbitt nor the modern organization man can be legislated out of
existence. However, the structural conditions which perpetuate their
existence can be addressed. Cultural action, as argued below, must take
place at a different level; possibly a complementary one.

^{31} It is a term originally borrowed from cultural anthropology,
specifically the later work of Ruth Benedict. As she was interested in the
level of integration in different societies, she formulated the notion of
high and low-synergy cultures. In the former the individual's own actions
and wants were to a large degree in harmony with that which was necessary
for the social good. In the latter, the opposite was true. She only
applied this to relatively-undifferentiated societies; nevertheless, the
concept is, I think, replete with potential. Unlike systems theory, it
emphasizes the cultural. However, like systems theory it holds out the
hope that individual activities can be integrated harmoniously into a
larger framework of activity. Systems theory has become too equilibrium-
oriented and prone to use by technocratic thought, despite the potential
of such work as Ludvig von Bertalanffy, General Systems Theory: foundations,
development, applications (New York, Braziller, 1969). For a development
of this theme, see Boguslaw's discussion of these latter-day Saint-Simonians
in The New Utopians: a study of system design and social change (Englewood
Cliffs, N.J., Prentice-Hall, 1965).

In many ways, synergetic praxis may be just another attempt
to define the limits of individual rights against those of the collectivity.
It is impossible to speculate on how a perfectly-balanced formula could ever
be implemented. It is, in part, a function of the relationship of the
polity to concepts of scarcity. The defined 'energy shortage' means the
sacrificing of certain personal freedoms (joy-riding, for example).

Insatiable needs can then be seen to mean unlimited restrictions. And the propagandizing of false needs is a means of integrating and controlling individuals. However, not believing in the satiability of the needs of the human condition (is there a 'need' to explore the universe?), I think it is important to distinguish between scarcity societies and materially-sufficient societies, and to derive an objective measure for such societies. A world-planning body that attempted to be democratic would confront all the difficulties that are raised in a discussion of Ellul. Even assuming a massive consciousness-shift whereby people transcended their own interests and talked in global terms about the implications of the productive and consumptive activities, there would be conflict. That concession is not necessarily disillusioning; utopian thought is notoriously static. See John Schaar's discussion of Erich Fromm, Escape from Authority: the perspectives of Erich Fromm (New York, Harper and Row, 1964).

³² The general use of the word 'praxis' may reveal that it is, in some ways, limited for the stated purposes of this section. Praxis includes the activity of reordering discourse to escape from technological language into a vocabulary rooted in cultural and ecological factors, like 'synergy' and 'synergetic' thought. Yet it must not be limited to action and initiation at a cultural level. 'Praxis' also has connotations which are dangerous for this argument. A science of praxiology (see Tadeusz Kotarbinski, Praxiology: an introduction to the sciences of efficient action (Oxford, Pergamon, 1965) is rooted in the same epistemological assumptions as technocracy. It remains a Marxist variant of this theory. Praxis must become a personal concept. A scientific understanding of the social forces does not mean that human action can be abstractly calculated.

I introduce this conceptualization purely to illustrate the necessity of organizing our perspectives on social change in a new style. 'Synergetic praxis' as we shall point out below, can be the theoretical basis for activities such as the stopping of the random expansion of technology and technological solutions by opposing the construction of x new airports. However, opposition must go beyond the interests of those immediately effected by the dislocations involved in that construction. It must address the overall needs of post-industrial society and seek to redress the forces that proliferate technique. Otherwise, decentralized opposition, cultural action, will remain an ineffective scattergun approach.

It is interesting to note tangentially that a 'synergetic praxis' is not exactly the same as recent attempts at a phenomenological Marxism, although a cross-fertilization of ideas is likely to be mutually beneficial. (On practical issues, the radical liberal, see Arnold Kaufman's book by that title, and the 'phenomenological Marxist' are likely to find themselves taking identical positions. This is an important point, which deserves the same inquiry into language that Hanna Pitkin applies to the arguments of Thrasymachus and Socrates in her Wittgenstein and Justice: on the significance of Ludwig Wittgenstein for social and political thought [Berkeley, University of California Press]. In this unity of praxis, new communities of interests can be disclosed). Phenomenology adds the life-world as a rehumanizing dimension to Marxism; but it is limited to a subjective perspective rather than the 'ecocentric' perspective offered by a development of the philosophical traditions leading to a 'synergetic praxis'. On these points, see especially Enzo Paci, The Function of the Sciences and the Meaning of Man (Evanston, Illinois, Northwestern University Press, 1972).

[33] There was an interesting attempt to provide the institutional framework for that in an article by David Apter entitled 'Premises for Parliamentary Planning' (Winter 1973, Government and Opposition) where he presents a utopian scheme in which a bicameral legislature accomodates both long-range planners and interest groups. This is designed to balance the tensions inherent to policy-making in post-industrial society within classical democratic parameters.

[34] As has been discussed, activities in different regions or groups might differ. The task of theory is to provide a unifying focus around which attempts to encounter and limit technique can be organized democratically.

[35] It is important to point out the pro-technocratic argument is based on the perceived complexity of issues and the consequent necessity of employing specialized skills to deal with them. This argument requires a much more substantial explication than can be undertaken here. However, it is essential to make a few preliminary observations: In a sense, the concept of technocracy is as old as the metaphor of the statesman as physician. In modern society, it is predicated on the notion that individuals and groups only act out of immediate self-interest. They are the 'rational' actors of utilitarian game theory. Occasionally, it is conceded that they are concerned with long-range goals like status, from which presumably, benefits will be accrued at some later date. The science of technocratic management is a science of order, integrating such naturally-clashing interests into an artificially-induced consensus.

[36] Originally used in Michael Young's essay The Rise of the Meritocracy, (Baltimore, Penguin, 1961), examining the notion as it effected developments in the British civil service.

[37] See Jerome Ravetz, Scientific Knowledge and Its Social Problems (Oxford, Clarendon Press, 1971) especially the section on a critical science, p. 422-436.

[38] 'Between Chaos and Paralysis', Christian Century, June 5, 1968, p. 748. Ellul's use of the word 'hippies' is confusing. From the context, I think it is clear he is talking generally about the youth movement as a whole and not that small group which more precisely would be called 'hippies'. It is a point that Ellul would scarcely consider important.

[39] Ellul's individual is notably detached. His relationship with others, who presumably are like him because they share a symmetrical relationship to God, is not discussed.

[40] Recent developments in democratic theory raise some questions about the type of 'democratic human beings' that will be created. Will 'democratic man' necessarily be committed? Concerned about the relationship between his actions and life-style and the conditions of misery that prevail in other regions of the world? Or will he be concerned about equitable representation and the maintenance of a symbollic order, reflecting an ideal community (with specific parameters). This question must emerge from a reading of Pranger's Action, Symbollism and Order: the existential dimensions of modern citizenship (Nashville, Vanderbilt University Press, 1968) and Robert Dahl's After the Revolution: authority in a good society (New Haven, Yale University Press, 1970) among others. The restorative dimension

(educative) of praxis can perhaps be served by the cultivation of democratic man in Ellul's sense, but this still avoids the fundamental question regarding how (and if) restoration (of the self, the citizen) and purpose (instrumental man organizing to achieve the minimization of misery) can be synthesized into a praxis. How does democratic man relate to his co-citizens? To those outside his polis? Is democratic man, in Ellul's sense, implicitly non-instrumental? After all to effect changes he must be prepared to be intolerant, manipulative, compromising (i.e., political). Democratic citizenship, reduced to discussion and debate, surrenders its capacity to effect changes. Here, it seems, Ellul is posing the clear political choice: democracy, which has been remarkably ineffective, or the possibility of effectiveness, and in his eyes, the certainty of technique.

41 It is inhumane insofar as it implies toleration (through inaction) of what was occurring in Vietnam and elsewhere at the peripheries of the world-system.

42 This means, in effect, a distinction between that which is 'actively evil' and that which is under certain circumstances 'tolerably evil' (e.g., apathy). There are grave problems, of course, in submitting such a distinction. These cannot be elaborated here. Ellul's own position opens up many extremely complex questions of ethics: He consistently, and correctly, ridicules the notion that 'all our hands are stained'. To state, for example, that all Americans are equally complicitous in the Indochinese war is to reduce the search for political ethics to a sham. However, can apathy be condoned in such a case? To say that the apathetic must be held accountable seems reasonable, even though it means a large-scale politicization. Perhaps Ellul's observations would be more persuasive if he attacked the notion (illusory) that everyone must be held responsible for everything.

43 There is a significant similarity here to images of action which appear within the conceptual frameworks of non-Western civilizations, especially Hindu. In such views, it is possible to effect a project without moulding or remaking. In the return to the question of instrumental reason below, this will be reconsidered. But essentially, it is an attempt to circumvent the category of the 'instrumental'. By living in a certain way, it is assumed that certain consequences will follow. That assumption is frequently unwarranted and can result in such tragic misconceptions as Gandhi's advice to the European Jews. As a theoretical insight, it maintains its attractiveness by denying the necessity of 'dirty hands' or compromise in order to be effective.

44 The outline which follows must remain sketchy. The contours of the argument within organization theory must be explicated. It should be pointed out that both Fuller and Ellul display scant interest in the dynamics of compromise-construction, the essence of democratic politics. As such, they are hardly representative of the poles in theory with regard to the question of democratic politics. However, their opinions can be contrasted with regard to the issue of centralization.

45 Structures where the means of production are controlled offer an easier way of adapting new technologies to social needs, and instituting appropriate selections of priorities. However, the internal dynamics of such an organizational structure tend to lead to a proliferation of techniques through the centralized bureaucracies. In this sense, Ellul's caveat to convergence theory contains some accurate insights, something which deserves to be re-emphasized.

[46] This applies to both the everyday language of public opinion and the jargonized rhetoric of the technocrats. The etymological and theoretical difficulties of the concept of representation (See Hanna Pitkin's The Concept of Representation, Berkeley, University of California Press, 1967) apply to the notion of 'the state'. In democratic theory, is 'the state' supposed to produce outputs that correlate as perfectly as possible with 'the inputs' of public opinion; or is public office and policy-making 'a trust', in which physicians tend too easily to become technocrats. The nature of Easton's 'black-box' is increasingly enigmatic. In any modern state (using the expression in its simplest geographical sense) a wide variety of interpretations of the role of the state coexist. The state is the instrument of the maintenance of order, the articulator of morality, the dispenser of justice, the administrator of service functions, etc. This semantic confusion makes the current task more difficult, but in the passages that follow, it is hoped that some light will be shed on these questions.

[47] Attempts to provide criteria for the assessment of a 'just state' are timeless. They are important not only in such debates as those which attempt to establish the legitimate parameters of disobedience, but also in illustrating the diverse expectations that exist of the modern state. Certainly, John Rawls' attempts to revive a notion of natural justice in A Theory of Justice (Cambridge, Mass., Belknap Press of Harvard University, 1972) contains several impressive achievements in this regard. In going beyond the 'systems maintenance' criteria of the technocrats, a wide variety of factors must be included: diversity of culture engendered; generation of certain religious or moral values which form the symbollic basis of community; successful distribution of material resources to guarantee the maintenance of certain elementary standards of subsistence; a legal culture which emphasizes accountability of all those engaged in policy-making, and a notion of fairness along the lines articulated by Rawls. Wolfgang Friedmann's article 'A Theory of Justice: A Lawyer's Critique' in the Columbia Journal of Transnational Law (Vol. II, No. 3, Fall 1972) points out that in practical jurisprudence, the arguments of Rawls reach the same conclusions as many legal positivists. Nevertheless, in the process of overcoming technocratic thinking, the articulation of a non-positivist set of legal standards is an important task.

[48] Ellul's works contain many references to Third World developments which purport to show the application of his thesis to situations other than that of western Europe. His examination of the Communist states, reveals his implicit support of the 'convergence theories' which have been the reflection of 'end of ideology' theory in international relations.

[49] There are forces endemic to organization. That is a truism. The autonomy of a tribe in the Cameroons will be reduced by its integration into a modern state framework which tries to, e.g., industrialize and reallocate national resources. In this sense, technique and the state are closely intertwined. The efficacy of a given technique relates to its ability to either reflect or destroy existing traditions. That is a truism of modernization theory in political science which will be returned to in the discussion of centralization below.

[50] The Technological Society, p. 233.

[51] Ibid., p. 232.

[52] The beginnings of political technique in the sense in which Ellul means it probably had their beginnings with the English Utilitarians. See Halevy The Growth of Philosophical Radicalism (London, Faber and Faber, 1952). The concept of the instrumentality of laws predates them in its nascent form by certain strands of Enlightenment thinking. Certainly, Lenin's was the most dramatic (revolutionary) application of such insights, to that time.

[53] See especially Adorno, Theodor and Horkheimer, Max, The Dialectic of Enlightenment, New York, Herder and Herder, 1972.

[54] Gouldner, Alvin, The Coming Crisis of Western Sociology, New York, Basic Books, 1970, p. 343-344.

[55] Even though, in fairness to him, he examines ancient techniques anthropologically. He writes on pg. 23 of The Technological Society:
'Technical activity is the most primitive activity of man. There is the technique of hunting, of fishing, of food gathering; and later of weapons, clothing and building. And here we face a mystery. What is the origin of this activity? It is a phenomenon which admits of no complete explanation.'

And again (pg. 229)

'The state has always exploited techniques to a greater or lesser degree. This is not new. But the techniques of the state, corresponding to the limited functions of the state were hitherto encountered only in limited domains.'

The first passage suggests that the psychology of technology and the psychology of artistic creativity may be rooted in the same cognitive functions, an important supposition for Ellul's overall theory. If one imagines a tool as a metaphor, then there is the basis of a different insight into technology. This point shall be discussed more below.

[56] Ellul does not offer explanations as to the origins of the wide- spread disarray of post-industrial society even in his later works. In these arguments, Ellul accepts the end-of-ideology position. Unlike many who use the concept, though, Ellul is pessimistic about this development. Such polarization as does exist in the technological society tends to revolve around the issue of the role of the technocrats. Ellul's pessimism seems to develop from what he sees inevitably happening to these counter-forces.

[57] The Technological Society, p. 307.

[58] McLuhan, Marshall, 'Big Transistor is Watching You', Book Week, November 28th, 1965, p. 5.

[59] Two other points emerge from McLuhan's statement. (i) The peculiar 'Frenchness' of his (Ellul's) writings: Ellul is part of a tradition in which centralization versus localization has long been the fundamental issue of political organization. The question must be posed whether certain 'universal' characteristics Ellul discerns are not themselves peculiarly French. (ii) McLuhan's geopolitical interpretation with its materialistic assumptions sheds a new light on the culture-structure relation- ship which was referred to several times in the last section. It is doubtful

that McLuhan would extend this analysis into a strict, causal explanation of cultural tendencies, but it would be interesting to re-examine his notion of 'media' in light of this observation.

[60] It is unfortunate that these two expressions conjure up images of opposition in their linguistic construction. There is an argument for using the expression centralization and localization, to present a more accurate representation of the concepts. However, the predominance of the former juxtaposition in everyday language-use makes it unnecessarily awkward to avoid it, in my opinion.

[61] The Technological Society, p. 199-200.

[62] The Political Illusion, p. 221.

[63] Edmund Leach, Political Systems of Highland Burma: a study of Kachin social structure, Beacon Press, Boston, 1965.

[64] Moore, Jr. Barrington, Reflections On the Causes of Human Misery and Upon Certain Proposals to Eliminate Them, Boston, Beacon Press, 1972, p. 75-76.

[65] Barrington Moore is certainly one of the most creative practitioners of American social science. A man of deep liberal humanist convictions, his examination of massive historical evidence reveals to him the deferred violence of 'gradualist' assumptions of social change. This tension in his major work, Social Origins of Dictatorship and Democracy, (Boston, Beacon Press, 1966) makes it one of the most significant publications of the last decade. Moore's limitations as a political theorist are displayed by his lack of consideration of the 'cultural' as a dimension in the historical process of change. His materialist analyses, taken alone, may lead to the formation of a deterministic formula which overlooks the real historical potentialities in certain cultural phenomena.

[66] This is a conceptual certainty. See Frank Manuel (ed.), Utopias and Utopian Thought (Boston, Houghton Mifflin, 1966). Ironically, the technocrats are themselves 'utopians'. By their belief in the possibility and the desirability of fabricating a new and more stable social order by a process of social engineering, they seek to impose an artificial consensus. In this anti-politics which excludes conflict and disequilibrium (perceived as harmful), they are utopian.

[67] I am not dealing at this time with the problems of maintaining services at a certain level of maximum efficiency that neo-anarchists seldom attempt to address. The rationalization of administration, for example, results in the possibility of constructing efficient 'health-care delivery systems'. It is important to emphasize that this isn't the only goal that should be accentuated. Depersonalized hospitals run in the name of efficiency are not a meaningful goal. But, surely, before these issues are addressed, it is necessary to guarantee access to services in an equitable manner.

[68] Ellul's qualification of his indictment of technique appears in his late works. Yet such works as The Meaning of the City (Grand Rapids, Eerdmans, 1970) indicate an antipathy Ellul has towards modernity. If

technology is to be viewed as inherently evil (which Ellul denies advocating but which is attributed to his thesis legitimately), then 'evil' in a theological sense must derive from man's capacity to strive or desire. Whereas this may be sound theology (I cannot judge), it is inadequate political theory. Mystery and reverence are only incompatible with an exploitative science. Manipulative and reductionist actions are rooted in the unchecked triumph of what Horkheimer calls 'subjective reason'.

[69] If political choices accentuate the reality of tradeoffs in any decision, then political choices with regard to technologies in technological society dramatize this truism. For example, a community rejecting an airport location is likely to, in the event that it is successful, have to be prepared to exist without the jobs which would accompany an airport construction. Similarly a practical problem results from the necessity of convincing an auto worker that his interests are served by the subsidizing of a technologically-outdated fishing village in Newfoundland. Ellul implicitly denies the possibility of such an under- standing. However, Ellul's faith in democratic man is not notably strong.

[70] Autopsy of Revolution, p. 283.

[71] Ibid., p. 285.

[72] Ibid., p. 286.

[73] Ibid., p. 289-290.

[74] Ibid., p. 297.

[75] Ibid., p. 65.

[76] Certainly, the existence of a science of neuropsychology means that our presuppositions about human motivation are qualitatively different from a pre-modern. The scale of examples from which we can choose has similarly enlarged our conceptual framework. The Enlightenment interest in the Amerindians was the first attempt to come to grips with the dilemma of our modernity. Structural anthropology has indicated the existence of certain universals in linguistics, and organizational theory. On this as a preliminary basis, a justification of the historical enterprise in under- standing modernity can be constructed. Ellul, in systematically delineating the modern from the pre-modern is committing a major theoretical oversight. Firstly, from an historical perspective, where does modernity begin? With Galileo's reorientation of the cosmos, or Einstein's reinterpretation of the cosmos. Certainly, modernity is qualitatively different by virtue of the fact that this is, in Heidegger's expression, the age of the world-view. Science insists on systematization, totalization, and an awareness of interrelationships (not just in ecology, but most dramatically in the every- day consciousness) which makes us doubt the validity of our subjective insights. But against the emergence of this worldview, there is a related awareness of our particularities, the cultural origins of our identity. (This is particularly evident in Quebec). Such an awareness can either lead to an 'exclusivism' (either through some mild nationalism, or through the attempt to locate a new totality in a race or a culture, as was Nazism), or it can be the basis of a moral community. This is far beyond the scope of

the current effort, but of such import that it must be mentioned, even if only tangentially. It must suffice at this time to rephrase the argument from a previous section: Ellul is aware of the effects of the worldview unmediated by cultural factors. Systematization (totalization) becomes standardization. The implications of this for a new praxis have been discussed in the section on the synthesis of policy and praxis above.

[77] Even in the most rational society, the art of public choice would require the de-emphasis of one or two of the three factors (democracy, the plan, the ameliorative) in given contexts. It is impossible to formulate a moral rule to calculate the 'utils' of forests versus economic security of x people. Any such enterprise is inherently dishonest because it puts moral values in technocratic language. However, it is important to maintain an awareness of the problems between the necessities of short-run decisions and the goals of long-range projections. In concrete situations, the rhetoric of 'short-run necessity' often obscures the non-existence of a long-range objective. Hence, this language is generally suspect. Despite the fact that it has been discredited, its importance remains and such considerations should not be excluded from a theoretical examination of technocracy.

[78] Quoted in Autopsy of Revolution, p. 121.

CHAPTER IV

SUMMARY

Concluding Postscript on Science

Ellul's own evolution beyond Marxism[1] has caused him to leave
behind many of its better insights and yet to maintain its determinism.
For example, Ellul's thesis would benefit from a consideration of the recent
work by Alfred Schmidt, The Concept of Nature in Marx, in which is offered
the following assessment of Marx's understanding of technology:

> Since the tool is itself already a product,
> already IN ITSELF the 'UNITY of subjective and
> objective' which was to have been established
> by the product, and to which nature as a whole
> has not yet attained, it can also be consumed
> in the course of labour in such a way that it
> enters into the material of the product. Marx
> was thinking here above all of chemical
> manufacture, in which accessories are added to
> the raw material, 'in order to produce some
> modification thereof, as chlorine is added to
> unbleached linen, coal to iron, and dye-stuff
> to wool...' Instrument of labour and object of
> labour here merge into each other.[2]

If the tool is the means for the transformation of labour into
an object, then technology has been applied creatively, according to the
logic of objective reason. Technology serves, in such an instance, for
the disclosure of an object which has been planned. Ellul's key insight
that modern technology operates autonomously means that the technological
society experiments with perpetual novelties. Technological thought means
the reliance on technical solutions over contextual ones. It is represented
by medical schools emphasizing surgery ahead of preventative medicine. It

is demonstrated when food shortages prompt the development of new artificial strains of crops rather than the reorganization of a political economy which results in irrational production and the destruction of surplus crops. The 'green revolution' has its place in a rational scheme, but its place is not as technological fix or panacea. Even the planned interventions of objective reason have unforeseen spinoff consequences. However, as discussed below, the attempt to render action unambiguous is in itself unscientific.

Therefore political theory is confronted with the task of creating a framework which can anticipate most unforeseen spinoff consequences of technological policies. This does not mean that there should be sudden massive attempts to accumulate data on the 'impact' of new technologies; it does mean an increased focus on our policy attitudes towards them.[3] Political decisions based on contemporary values and insights may appear to be ill-advised at a future date of evaluation. (There is nothing new about this as an historical fact; our appreciation of it is qualified by the nature of modernity conditioned to notions of scientific certainty.) The diffusion of consequences makes democratic accountability difficult, but not impossible. If policy-making is to be coordinated, there must be a consensus surrounding the basic goals of society (e.g., reduction in energy-use, environmental protection versus increase in energy-supply, ignoring environmental safeguards). How anticipatory democracy can be made to resolve conflicts is a cornerstone dilemma of post-industrial political theory. As revealed in the discussion of Barrington Moore's observations, decentralizing theory fails to coherently address the question of conflict regulation. The search for pure community (without dissensus) is as apolitical as the search for a technocratic consensus. At this point, democratic theory reaches a crisis point: Should conventional

rules of majoritarian decision-making be followed? Who, for example,
should decide on the location (and the need) for an airport? (Answers
include: (i) the local residents; (ii) the technocrats (iii) all citizens
of the entire polity; (iv) the people who are most likely to use the
airport.) Who will decide whether a set amount of resources will be
allocated to the development of a new toothpaste or the construction of
low-income housing? Certainly, a formula for the creative resolution of
such conflicts is impossible within the emphasis that consensus-pluralism
places on the short-run. However, to admit the difficulty of creating a
'perfect framework' is not to deny the possibility of establishing a viable
democratic formula.

Ellul assumes that any collective action will be subsumed by
technique. Despite this, he realizes that his own remedies are inadequate
for the purposes of negating the role of technique. From this impasse,
it is obvious that a new conceptual framework for the discussion of
political theory is necessary. I have tentatively introduced the concept
of 'synergetic praxis' as a direction to be explored. It places the
emphasis on the notion that IN CONTEXT, WITH THEORETICAL BASES, organizing
to block the implementation of a 'routine' decision to build a new airport
or expressway may be one of the most creative political acts possible
today. Technical knowledge must be challenged in each case where it is
presented as the sole manifestation of man's instrumental capacities. In
the evolution of the technocracy, man has lost his ability to formulate
political goals which can and must be solved by political means.

The technocrats themselves argue that the spinoff consequences
of modern policies (social, economic, and technological planning) complicates
the process sufficiently to limit the potential of democracy. This

reflects the assumption that current trends will continue unamended. Yet the role of science, where this problem will be most clearly manifested, can be made subject to norms of democratic accountability. This can be demonstrated from Ellul's own discussion of Zweckwissenschaft. How then is scientific research to be democratized? Most major technological innovations today are spinoffs from either military research or such prestige projects as space programs and cancer research. Regulatory functions are to a large extent ineffective, serving either corporate or technocratic interests and legitimizing the status quo. Yet there is a process of decision and control. It is decided in advance which research is likely to be valuable and for whom. Choices are made between biological engineering and an interdisciplinary project to design improved community health-care facilities. Traditionally, before Einstein and Oppenheimer, scientists could argue that they were not responsible for the applications that politicians made of their discoveries. Today, however, it is simply dishonest to deny the consequences inherent in research priorities. The idea of 'pure research' is a facade left over from the days of supposed scientific neutrality. Accordingly, there is already political direction of science. The question is how the direction is chosen.

Ellul has devastatingly and correctly criticized a way of thinking. Yet by failing to address the vital question of how the state evolves and how the technocratic persuasion came to prevail to the exclusion of other possible modes of organization, Ellul limits his analysis to a single aspect of the problem. An alternative to technocratic management as a problem-solving and policy-making formula has been suggested by Laurence Tribe. Although his analysis is limited to the policy dimensions of modern politics, it represents an attempt to respond to the complexity of structure in a non-technocratic mould:

> All of the proposals appear to point in the
> general direction of a subtler, more holistic,
> and more complex style of problem-solving,
> undoubtedly involving several iterations between
> problem-formulation and problem-solution and
> relying at each stage on careful articulation of
> a wide range of interrelated values and constraints
> through the development of several distinct
> 'perspectives' on a given problem, each couched in
> an idiom true to its internal structure rather than
> translated into some 'common denominator'.[4]

Such a formula would make policy more receptive and complementary

to the praxis of the centres of tension than it presently is. It is

facile to state that policy-making must be based on a new set of priorities,

yet it is also unavoidable. Tribe suggests that a more complex policy-

making apparatus will more readily reconcile divergent aspirations. Such

policy-making will frequently be confronted with the necessity of choosing

between groups with competing claims to resources.[5] As I have repeatedly

pointed out, the one-sided focus on policy-making suggested by Tribe is

as inadequate as Ellul's dismissal of the state. Equally apparently, the

difficult decisions confronting post-industrial society cannot be made by

a day-to-date ad hocism.[6]

The renaissance of political life requires action at both the

policy and cultural levels. The revitalization of goal-oriented public

policy is essential to counter the technocratic dominance within modern

society. Similarly, Ellul's critique of the technocratic way-of-thought

should provide the focus for the creation of a new language of political

discourse. In contributing to the creation of such a new language, the

task of political theory includes the necessity of avoiding the naiveté

that characterizes much of the 'consciousness theorists'. Thus, it is

important to go on to study the role of culture as a transforming agent,

and the relationship between culture and economic and social structures.[7]

Under what circumstances, it must be asked, can symbollic action be

8

considered?   An exploration of the concepts 'centralization' and 'policy'
versus 'decentralization' and 'cultural praxis' shows that within a new
political language, these need not be dichotomized.   There is a necessity
for the organization of the decentralized counter-structures (poles of
tensions) to counter technique.   These include communes, work-groups,
organizations of critical scientists, etc.   It is imperative that such
groups function within a political framework complementary to their
activities and responsive to their goals.   In this manner a desirable
tension between poles will facilitate the opposition to routinization
during institutionalization.   To surrender either planning or participation
would be to admit that democracy is just another outdated utopian vision
and that technique is the only answer.   If that is unacceptable, then the
new political language must be developed.

FOOTNOTES

[1] See his letter introducing his personal development in Holloway, James Y., Introducing Jacques Ellul (Grand Rapids, Eerdmans, 1970) where he writes (p. 5) 'From that time on (when he started reading the Bible) the great problem for me was to know if I could be Marxist and Christian. On the philosophical plane, I realized very quickly that I could not, and so chose decisively for faith in Jesus Christ.'

[2] Schmidt, Alfred, The Concept of Nature in Marx, London, New Left Books, 1971, p. 106.

[3] Of course, much empirical work on the dispersal of new technologies and the role that state policy plays in this process is essential. Polaroid and Xerox are two important examples that could be investigated with great benefits. The study of multinational corporations R & D and new technologies is just beginning. An empirical science of technological innovation (attempted in some brands of futurology) has great merits. However, if technology assessment becomes the tools of a new meritocratic elite, calculating according to a computerized game-theoretical model what should be innovated at a certain moment, the prospects for a revival of politics and the negation of technique are more remote than ever. There is, as discussed above, a potential tendency towards hierarchialization even within critical science. Technology assessment must, then, be strong enough to dam the tide of technique, a tide which runs in favour of the status quo in which new innovations are dispersed through MNCs, military industries, and occasionally medical research centers. Yet, with Ellul's warnings in mind, it itself must not succumb to technique, and then turn into the new meritocracy.

[4] Tribe, Laurence, 'Policy Sciences: Analysis of Ideology', Philosophy and Public Affairs, Fall 1972, p. 107.

[5] Ideally, the classical distinction between 'wants' and 'needs', a remnant of the scarcity political economy, disappears. In a sense, the new vocabulary of political theory, whether it be based on the concept of 'synergy' or something else, must transcend this distinction between the subjective and the objective, the cultural and the economic. This, then, becomes another manifestation of the same metatheoretical dilemma.

[6] For example, the process of adjudicating claims between mineral resources and leisure facilities is part of a much larger question of overall societal priorities. Under certain circumstances (e.g., severe unemployment unable to be alleviated within the present political economy except in a ten- to twenty-year time-frame), would it be right to consider the sacrifice of a leisure region to obtain mineral resources for a stop-gap industrial strategy? How far can such thinking be tolerated? How will day-to-day alternatives be formulated within the framework of institutional democratic politics?

[7] Political theory must explore these dynamics of social change more thoroughly. There is often a very thin line between anomic action and symbollic action; for the formulation of an ethical theory and an effective praxis, that line must be clearly drawn. For example, in the recent case of the justification of the bombing of the University of Wisconsin's Army Mathematics Research Center, the defense argued, in effect, that Armstrong's actions were a symbollic act of protest, calculated to avoid any destruction of life. Of course, one physicist was killed. The argument as to whether this action was anomic (desperation, frustration and a lack of a capacity for effective action) or symbollic (a protest which was to ignite resistance, demonstrate opposition and impede war research) is of great significance. Can it be allowed that the difference between anomic and symbollic violence is the intention and the political sophistication of the actor? Herein also lies the importance for democratic theory of defining what a 'political' crime is. However, that must remain a future effort.

[8] Again the importance of understanding the relationship between cultural action and social structures is imperative. In this regard, see again the work of Paolo Freire.

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