PLANNING, ACTION, AND THOUGHT

by

MICHAEL VANHILST

Submitted in Partial Fulfillment of the Requirements for the Degrees of
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ABSTRACT

The incremental model of planning is discussed. Some obvious shortcomings are noted. The model is found to assume that the world functions as a single, complex machine. The method of planning is seen as uncovering the workings of enough of the machine to enable instrumental actions. Failure to successfully operationalize this model seem to recommend the building of larger models to better simulate the machine.

The mechanistic model is discussed in greater detail as it relates to the goal of management. Two potential limitations of the model are identified. One, having to do with the limitations of atomistic logic, is not pursued further due to a lack of a means of grasping the issue. The issue of human behavior in the mechanistic description is related to the distinction between subject and object in our grammatical structure. The subject causes, the object is caused, dependent. It is hypothesized that when dealing with people, treating them as objects will be found to have different consequences than treating them as subjects, capable of independently initiating action. These consequences will have relevance to planning goals.

Empirical evidence supporting the hypothesis is presented from locus of control research in the field of psychology. The research deals with the distinction between the individual perceiving himself as the object of events external to himself and perceiving himself as the subject of his own life's events. The weight of the evidence strongly suggest that life is felt to be better where people perceive themselves as capable of acting as subjects in their life events as opposed to being mere objects, whose actions and experiences are dictated by other persons or events.

The discussion is extended to John Dewey's descriptions of experience and growth, Karl Marx's description of alienation, and the existentialist view of vitality. Further ethical notions on determinism as described by Jürgen Habermas are discussed.

The final chapter discusses several cases of planning situations and actions and the relevance of the notion of determinism in human life as applied in planning action and thought.
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"Is it immoral for one man to decide what is good for another, and to influence decision makers to make the 'appropriate' changes? I take this to be a meaningful and serious question. . . . Although the question is addressed to all those who devote part of their lives to changing society 'for the good', politicians, managers, administrators, and demonstrators, I'll single out one such group, the planners, for special attention, since planners work through ideas, and this essay is essentially an exploration of ideas."

(Churchman, 1977, p. 165)

INTRODUCTION

I view my planning background as being in many ways that of a technician. I have learned many tools and methods for solving specific problems, achieving specific goals. But I have never really understood where the goals come from. For some time now I have pondered the question of how problems are defined, how the agenda for planning comes into being. I have not found any satisfactory answers to these questions. But many issues, relevant to these questions, have come to my attention. Over time, many of the ideas have coalesced into the arguments presented in this thesis.

I began this thesis as a project in applying basic philosophy to a critique of planning theory. The purpose was to make planners more aware of the significances and consequences of the models they use. My belief was that the theories and models used by planners were not simple, value-neutral tools which could be applied to any purpose or intent. They were themselves embodiments of intentions and values which would serve to perpetuate and give validity to those values and intentions when used by policy makers. The result was that planners were imposing values, without even realizing they were doing so. The field of philosophy, as
the study of ideas, was the logical place to turn to for a means of revealing some of the underlying assumptions and values in planning theory.

The mental model which is most characteristic of planning today is incrementalism. This is usefully understood as following from pragmatism, the social philosophy from which incrementalism borrows its method. Incrementalism entails bounding the world, limiting activities to the manageable. In the first chapter I discuss the incremental model and the problems it seeks to address. The data approach of incrementalism may be better understood by a reference to the discursive approach in logic which is explained in Appendix One and limitations on reasoning imposed by Logical Positivism, explained in Appendix Two. The entire approach views the world as mechanistic, functioning as a single, complex machine. The method of planning is seen as uncovering the workings of enough of the machine to manage its functioning through instrumental action. Failure to successfully operationalize this model dictates the limited approach of incrementalism and seems to recommend the building of larger models to better simulate the machine.

Although some obvious limitations of incrementalism are discussed in the first chapter, a more fundamental critique of its underpinning, the mechanistic model, is presented in Chapter Two. The question which is pursued is whether the failures of the management ideal might be more fundamental than simply not having identified the perfect mechanistic model. Two potential shortcomings of the mechanistic model are identified. One, having to do with the limitations of atomistic logic, is not pursued further due to the lack of a means of grasping the issue. The other, the issue of whether or not human behavior is mechanistic in the sense
of the ideal model, is investigated further. The nature of mechanistic descriptions is clarified as involving the distinction between subject and object in our grammatical structure. The subject causes, the object is caused. A hypothesis to be tested is then determined to be that the distinction between subject and object, when used in describing people and their behavior, is significant to planning, that different outcomes derive from different descriptions and the actions based on those descriptions. The method of testing will be to seek evidence linking the distinction to commonly valued planning goals. In particular, it will be contended that treating people as objects, acting on theories which do so, can be shown to have undesirable consequences in terms of planning goals.

Chapter Three presents empirical evidence. Whether a person perceives his life as the object of events external to himself or perceives himself to be the subject of his life's events is the topic of a rather substantial literature in the field of psychology. Illustrative elements are presented from this literature. The weight of the evidence strongly suggests that where people are treated as / view themselves as subjects, life is better than where, all else being equal, people are treated as / view themselves and their lives as objects.

Chapter Four attempts to broaden the implications of the hypothesis for planning by connecting the subject-object distinction in viewing human behavior to several major planning issues as described by philosophers and social theorists. John Dewey's descriptions of experience and growth, Karl Marx's description of alienation, and the existentialist view of vitality are presented. Appendix Three also contains a critique of Utilitarianism drawn from John Dewey and his critique
of education which follows from it, which may be useful background for understand-
ing Dewey's ideas on growth. An explicit expansion of Dewey's ideas on
growth is provided in Chapter Four. The last part of the chapter deals with a
discussion of determinism in human behavior and emancipation from determination
based on the work of Jürgen Habermas. This last section is not developed in the
later discussion of planning applications but rather is presented as a moral counter
argument to the mechanistic model ideal. Habermas argues that where human
behavior is involved, we should strive to make the mechanistic model less applic-
able rather than more. In the social sciences, the mechanistic model relies on
unreflective behavior for its applicability. When persons are aware of the
functioning of the mechanistic model, they may choose to alter their predicted
relationships.

Chapter Five returns to the practice of planning in an attempt to apply
the construct of the hypothesis to planning issues and experience. A description
of the problems resulting from the present planning model is explained in terms of
the construct. A specific example of a planning action which had the described
consequences is explained. The implications of the construct are worked through
two hypothetical planning situations and three real cases are discussed. Finally,
a problem with the generalizability of the thesis is mentioned, indicating that while
it serves well to inform planning action, it cannot be accepted blindly as a rule.
CHAPTER ONE: THE INCREMENTAL MODEL

The mental model which most characterizes planning as it is practiced today is incrementalism. Incrementalism means proceeding by small steps limited in time and scope. In this chapter this approach to planning will be discussed. Additionally, some theoretical and practical problems related to incrementalism and its adequacy for planning will be assessed.

The basic problem of planning, that which separates the real practice from the ideal theory, is complexity. The reality confronted by planners is too complex to allow for complete understanding and the identification of optimal courses of action. To understand what complexity means, we may begin with the essential situation, a planner and an environment. The planner, having intentions to carry out some course of action within the environment (such as the achievement of a planning goal), must have a means of understanding the environment for theorizing about hypothetical actions. He breaks his initial impression of the environment into identifiable pieces or concepts (later to be seen as variables or elements of commonality) for the purpose of abstract theorizing. He further subdivides concepts until continued subdivision does not appear useful for understanding the environment and carrying out intentions within it. (This process of subdividing, which is known as the discursive approach, is discussed in greater detail in Appendix One.) The planner must then identify relationships between and among the pieces before he can use them as variables in models of action, manipulation, and consequence.
The problem of complexity arises from the fact that the human mind has a limited capacity for conceptualizing individual elements simultaneously in relation to each other. The planner is not able to consider the entire environment at the level of detail he finds fruitful for the kinds of intentions he seeks to carry out. To maintain a given level of detail, he must limit his view to a specific field within the environment and to only certain aspects of that field. As an example, a planner working for the sewer commission in the city of Cleveland might only be concerned with those things defined as sewage found within the limits of the city of Cleveland. This enables him to exclude the vast bulk of what could be thought about in the greater environment. He need bring to his view only a technical knowledge consisting of concepts relevant to the potential handling of sewage. He will then manipulate these variables in his mind to yield a plan of action to do something with the sewage which is not considered harmful.

The planner's view may also be limited in time, responding only to what is happening immediately or what may be expected to happen in the near future. The planner concerned with sewage may devise strategies to meet the demands for sewage treatment predicted to occur within the next five years, ignoring possible demands not anticipated until after that period.

This approach is pragmatism. As characterized by Harvey Cox, it is the response of a secularized society which is turning away from "ultimate or religious questions" and focusing concern on what are perceived to be more immediate "problems", "settling for highly provisional solutions". (Cox, 1965) For the pragmatist, the world is viewed not as a unified metaphysical system but as a series
of interrelated problems and projects. Even though solutions are limited in focus and time, and may lead to a whole new set of problems, this is expected. It is the course of progress. "That the pragmatist works on his problems one at a time testifies to his belief in the order of things." (Cox, 1965, p. 57)

In recent times, the complexity of planning has been seen not only as a problem in identifying manageable problems and workable solutions but also undesirable consequences of actions. Following the pragmatic approach, Charles E. Lindblom combined the narrowing of focus and temporal scope in his strategy of incrementalism. By making numerous, successive small decisions aimed at limited aspects of a problem, planners were seen to be able to use negative feedback between steps to more accurately attack problems and minimize undesired consequences. The size of each step was determined by the scope of issue which the planner can adequately understand. The incremental approach was presented in contrast to a method Lindblom called "synoptic" because of the high degree of synopsis or comprehensiveness of view. Lindblom asserted that the synoptic ideal was unattainable. "Between incompleteness because of neglect of consequences and incompleteness because of an aspiration toward comprehensiveness that cannot in fact be satisfied, the former is not necessarily more alarming. Decision makers must choose between errors of omission and errors of confusion. In many circumstances a decision maker comes to terms with his own abilities and available information when he turns from an analysis so complex that he will bungle it to a simpler analysis that, even is incomplete, can be done well within its limits." (Lindblom, 1965, p. 144)
As an example of this strategy, we might consider the situation of a planner working for a public transit authority. A planner taking the synoptic view would conduct numerous route destination, traffic density, transit usage, parking, land use, and public opinion surveys to build a complete picture of the movement of goods and people throughout the city, the purposes of trips, the anticipated changes, and the motivational factors involved in trip and mode of transit selection. Then the planner would design a complete set of transit routes and schedules, fare structures, park-and-ride facilities, kiss-and-ride services, and in-town parking restrictions all culminating in a more efficient system of transportation for the city. The incremental planner would move one step at a time. The fare structure could be changed. Depending on the experience further fare changes might be made or remade. An express service would be instituted on a certain line. It might later be extended, rerouted, or discontinued. A new route might be added. An old one would be discontinued. A special bus for the handicapped would be provided. A park-and-ride facility might be built on a major highway. After initial assessment it might be connected to a nearby suburb by a dial-a-ride service. Each step involves only a minor commitment, does not require extensive study, does not cause major disruptions in existing behavior patterns, can be easily assessed, and can be modified in the next step. Other steps may be tailored according to the experience of earlier steps. The system evolves as the situation confronted changes and as new innovations prove successful.

March and Simon (1958) note that even within well-bounded problems optimal solutions might be difficult and costly to identify. They propose that beyond some
point, the cost of searching for the optimal solution cannot be justified by the potential advantages it might have over other, already identified solutions. In place of optimization, a policy of satisficing is suggested. This procedure involves setting standards for a satisfactory solution and, depending on the cost of searching for better solutions, settling for a solution which meets the criteria of satisfaction. In this way, the sewage planner mentioned earlier establishes criteria for a non-harmful solution to the problem of sewage disposal. He does not seek the best use or treatment of sewage. The cost of a technology search and assessment to consider recycling separators, sludge fertilizers, radiation sterilization, energy producing methods of burning, fuel creating fermentation, solar powered purifiers, or other new technologies, would not be justified by the benefits derivable for the town. He will most likely end up seeking to dispose of it by the least harmful means within a given cost range. For most towns this will mean using the most readily available, commonly used technology.

To summarize the pragmatic, incremental, satisficing approach to problems: the environment is seen to be too complex to be considered all at once. Changes in the environment are not well enough understood to make specific plans for eventualities far distant in the future. Even specific problems may be too complex for optimal solutions to be easily identified. Problems are to be identified one at a time. The focus of each individual problem-addressing, solution-finding effort is narrowed. If possible, problems are further broken into sub-problems addressable one at a time. Provisional, sub-optimal solutions are accepted where the cost of further improvement is high.
The criterion which is used in selecting an appropriate scale or scope for problem-addressing is control. Though Lindblom says 'understand' rather than 'control', understanding means the ability to describe in such a way that instrumental manipulation is made possible. It is this criterion which determines the appropriate scale of issues addressed as indicated by a choice of errors of "omission" over errors of "confusion". The implications of this intention will be discussed in the next chapter.

Is the incremental approach workable? What are its weaknesses? Can problems be successfully isolated from the broader context? The incrementalism and pragmatism described by Lindblom and Cox takes its cues from the scientific method where experiments are conducted on phenomena isolated from or controlling for surrounding factors. However, the social sciences have proven more resistant to this approach. Social phenomena may be said to be context-dependent. Decision makers encounter the same kinds of problems in trying to isolate areas for consideration. The method entails isolating systems from a more complex constellation of events by drawing artificial boundaries. Thus, effects which cross these artificial boundaries are, for one or another reason, considered relatively unimportant. This method of problem design was discussed by Chris Alexander in Notes on the Synthesis of Form (1964). In economics, costs which occur outside a boundary drawn to include only market interactions are called externalities. In industrial processes, events which had not been anticipated in the original calculations focused only on production (because burning coal produces more than heat) are called byproducts or pollution.
In this same way, public policy derived from similarly simplified theories (social or technical) results in unanticipated and often undesirable consequences or side effects. There is an analogous story about this issue called "The Monkey's Paw". The monkey's paw is a stuffed hunting trophy which enables its possessor to have his wishes fulfilled. In the story, the new owners discover that indeed their wishes are fulfilled, but always under the most horrible circumstances.

Lindblom would respond that no theory is good enough to avoid the problem of unwanted side effects. In fact, the theory of incrementalism explicitly suggests that by taking small steps the consequences of each action will be likewise small and, if important enough, can be addressed in the next step. It is, of course, assumed that in each action the gains outweigh the costs (a problem of cost-benefit analysis) and therefore we should find ourselves confronting progressively smaller and fewer problems.

A danger here is assuming that consequences will be minor. Natural processes which concentrate previously trace quantities of pesticides are a good example of such unanticipated dangers. The cost of removing those pesticides from the environment, if at all feasible, would be prohibitive. Cancer is another case. We now realise that the incidence of cancer and heart disease is related to many changes in our diets and social living situations which have taken place over a long period of time. We may find that the only rational solutions to some of our problems are to undo some of our earlier solutions. Our commitment to or dependence on some of those earlier solutions may make such remedial action difficult.
The incremental approach has obvious appeal to decision makers in bureaucratic positions. They make only small decisions unlikely to draw particular attention and unlikely to risk noticeable errors. The problems that do arise will grow over a period of time and be difficult to trace to any specific decisions. They will just be tomorrow's business. However, this also leads one into a situation commonly called crisis management or management by exception. The decision maker responds to immediate problems rather than a vision of a better tomorrow. It is, as Lindblom suggests, "not surprising that public problem solving is also dominated less by aspiration toward a well defined future state than by identified social ills that seem to call for remedy. Thus problem solving will be directed toward the suppression of vice even if virtue is not defined, will be concerned with mental illness even if we are not clear as to just what is healthy, will be bent on curbing the expansion of the Soviet Union even if we do not know what positive objectives in foreign policy to set against the Soviet's objectives. The decision maker does not wholly turn his back on such general aspirations as liberty, economic growth, or justice; but he makes these abstractions less dominant in his analysis than particular imperfections which he wishes to remove. The simplification of immediate problems achieved by focus on the remedial ill is obvious."

(Lindblom, 1965, p.147) But the remediation of the obvious may itself be a serious error. An extreme example of this is found in the statement by an Air Force general in Vietnam, "We had to bomb the village in order to save it."

More to the point, businesses are literally drowning in minor regulations which must be complied with and forms which must be completed and submitted.
It seems that every time a bureaucratic agency finds an issue or a potential issue, it enacts a regulation to deal with that issue. A recent ad for Bethlehem Steel complained that they confront 5,600 separate regulations from 27 federal agencies pertaining to the making of steel alone. Similarly, developers cannot afford to hold undeveloped property for the length of time often required to clear the numerous hurdles of getting required permits. Much of the research and development money invested in the auto industry is devoted to complying with regulations, many of which change every year as priorities change and problems are redefined.

Another problem which incrementalism does not escape occurs when the definition of a problem and possible solutions take certain things as given, such as the economic superstructure, the use of technology, or the availability of abundant energy. The solutions prescribed often depend on the continuing existence of these givens. Pragmatism is especially prone to this problem. When an issue is isolated, everything else is held constant, accepted as given, while only aspects of the isolated issue are considered variable. For example, many of our solutions to pollution require large amounts of energy. In the previously mentioned example of cancer, it is interesting to note that a recent Congressional hearing (June 13, 1978) revealed that 95% of the federal funds allocated for cancer research have been spent on finding new cures while only 5% has been spent on preventions such as identifying dietary links. Aside from the obvious remedial disposition of the research, the assumption that modern technology can solve everything continues to make us more dependent on its gadgets rather than less dependent (more independent as individual
human beings). Similarly, our attempts to help third world nations develop by offering the benefits of our technologies and advice based on models devised in our own advanced economies seems to make them dependent on our own advanced technologies which they themselves cannot reproduce. These countries experience social transformations which have more to do with the adoption of Western ways than the indigenous social fabric.

John Friedmann provided an example of the experience of planners in the early stages of communism in the Soviet Union. Rather than trying to control the economy indirectly through manipulations of the credit market and similar policies as practiced in this country, they decided that direct control would be much more effective. However;

"One of the least expected consequences of the extensive use of direct economic controls was the necessity it created for coercive measures in many related facets of life. To make the Soviet system work, jobs, location, housing, and consumption had all to be regulated according to a plan, and, as domestic criticism mounted, thought control had to be added." (Friedmann, 1973, p. 37)

Although the initial decision was not incremental, the subsequent incremental decisions which assumed the usefulness of direct control, made extensive use of direct control necessary for the survival of the state.

The most telling example for our purposes is provided by incrementalism itself. By instituting numerous ad hoc solutions in response to what is perceived to be a constellation of numerous minor problems, as in taxes, welfare, government organizations and almost everywhere else, decision makers increase the complexity of situations whose perceived complexity led them to settle for incre-
mentalism as an expedient in the first place. An analogy for these examples may be found in the plight of an insect caught in a spider's web.

Rittel and Weber present a more fundamental criticism of the incremental approach, that it is superficial and may impede meaningful solutions. The pragmatic police chief will see the problem of crime in the streets as needing more policemen and better hardware rather than as a symptom of deeper social ills. Treating the most obvious symptom is considered a low level of problem formulation. Seeking more fundamental roots of a problem involves a higher level of problem formulation. "The higher the level of a problem's formulation, the broader and more general it becomes: and the more difficult it becomes to do something about it. On the other hand, one should not try to cure symptoms: and therefore one should try to settle the problem on as high a level as possible." (Rittel and Weber, 1975, p.165) In this view, incrementalism will just keep stepping on fires without ever getting to their cause. As we saw in the earlier examples, the dependence of incremental solutions may make more fundamental change more difficult and more disruptive.

It would seem that what is needed is the taking of a broader view. Even if a significant level of detail can be achieved only in a limited field, the decision maker should devote some attention to the broader context within which the issue is found and search for the broader implications of possible solutions. Sometimes the broad view reveals the consequences of innumerable little decisions and indicates a more valuable course of actions. The idea of zero based budgeting came from the observation of proliferating government programs proceeding without
idea of consequence. Not long ago, the director of state planning in Massa-
chusetts observed that the state government, through countless minor admini-
strative decisions, was a major contributor to urban blight and sprawl. Ad-
ministrators looking only at immediately relevant costs were locating important
government offices and service facilities on cheap land outside of the state's
urban centers, not noticing that those centers depended for their lives on the
mutual support of a variety of services which attract people.

This approach is not ideal. While it is an improvement over blind incre-
mentalism, the problem of complexity still remains. How else can we deal with
this complexity?

Another approach has been through the use of mathematical models along
with computers. Through the use of mathematics, planners are able to describe
relationships between thousands of variables, simulate possible outcomes of
complex events, and draw generalizations from hundreds or thousands of individ-
ual events. Mathematical modeling and forecasting is widely applied to most
areas of planning. Along with the mathematical models have come several model-
ing techniques borrowed from the natural sciences, most notably systems analysis
and operations research.

But even with the ability to consider millions of variables, we are not able
to accurately model the planning environment. The problem appears to involve
our inability to accurately define the relationships between and among variables.
This problem is especially acute where human behavior is involved. Our present
models seem too rigid for the events they seek to emulate. Are the relationships
described in our models too simplistic? Is it that we just aren't specifying
enough variables, describing events in enough detail? Are our initial assumptions
about the problem of complexity adequate? We can attempt to deal with these
problems by making our models bigger and more detailed. Alternatively, we
could reassess our definition of the problem and our approach to it.
A problem may be described as the discrepancy between a situation as it is seen to be and the situation as ones thinks it ought to be, between the real and the ideal. In the previous chapter I described the major problem of planning as the environment being too complex for the ideal of planning to be realized. In the form described above, I could say that the real situation is seen to be incomprehendably complex while the ideal situation desired is one that is comprehensible and manageable. Rittel and Weber (1973) characterize the real situation confronted by planners as "wicked" in contrast to the ideal situation which is described as "tame".

In assessing this problem formulation, we must consider both the description of the real and the idea of the ideal. The two, however, cannot be viewed independently. How a situation is described is dependent on and embodies intentions for actions relative to that which is described. A language syntax is very much like a vending machine. It has a set of knobs which are user activated. The extent of what you can do with the machine is limited by the selection indicated by the knobs, by the syntax of the machine. "The choice of syntax and vocabulary is a political act that defines and circumscribes the manner in which 'facts' are to be experienced. Indeed, in a sense it goes farther and even creates the facts that are studied..." (Laing, 1967, p.62)

Remembering the intention of control and the statement that the pragmatic, incremental approach takes its cues from the scientific method, we may have a key
to understanding the intentions of the language of planning. Jürgen Habermas stated in Knowledge and Human Interest:

"There are three categories of processes of inquiry for which a specific connection between logical-methodological rules and knowledge-constitutive interests can be demonstrated. ... The approach of the empirical-analytic sciences incorporates a technical cognitive interest; that of the historic-hermeneutic sciences incorporates a practical one; and the approach of critically oriented sciences incorporate the emancipatory cognitive interest..." (Habermas, 1971, p. 308)

The critically oriented sciences seek to demonstrate the limitations, the weaknesses of theories. To this end they commonly use the dialectic approach. The hermeneutic sciences, i.e. history and anthropology, view other events in terms of the interpreters own preunderstanding, his intitial situation. "...meaning discloses itself to the interpreter only to the extent that his own world becomes clarified at the same time." (Habermas, 1971, p. 310)

The purpose of the empirical-analytic sciences, the natural sciences commonly refered to as science, is control. "...the logical structure of admissible systems of propositions and the type of conditions for corroboration suggest that theories of the empirical sciences disclose reality subject to the constitutive interest in the possible securing and expansion, through information, of feedback-monitored action. This is the cognitive interest in technical control over objectified processes." (Habermas, 1971, p. 309)

Consider the statements of Logical Positivism in the second appendix. Only statements which can be empirically tested are considered meaningful, capable of being real, true. How is a scientific proposition tested, validated? If, all other
factors being controlled for, a sequence of events is repeated and the outcome is the same, the proposition about a causal relationship of the events and outcome is considered validated. That is, the proposition enables us to reliably predict and or control. If the proposition does not enable accurate prediction, it is considered invalid or meaningless.

In symbolic form a proposition has the form, 'if A then B,' whether indicating that A leads to B or A has the quality B. Repeated observations of A then B give the proposition credibility. An observation of A then not B renders the proposition incorrect, not true. Control follows from prediction. If I can control A, then I can control B where B follows from A. The standard of repeatability of sequential events without contradiction gains its significance from the intents of prediction and control.

The arguments here applied to natural science, apply also to many aspects of planning. The reason we use causal models is to find events over which we have control with causal relationships to events over which we previously could not have an effect or exercise control. Thus, in describing a set of causal relationships, we seek to connect an event of interest through a causality tied chain of events to an event over which we have control. This procedure is explained in the second stage, analysis of system structure, of the planning process described by Krueckeberg and Silvers;

"Systems analysis takes the defined problem and structures a model of the problem variables and their interrelationships, based on gathered data and their careful analysis, to calibrate the effects of
various control and change strategies on the goal and need variables. (Krueckeberg and Silvers, 1974, p. 6)

The test of a good planner or manager is seen to be his ability to effect desired outcomes.

Given our interest in effecting specific outcomes, we will choose the most reliable method of achieving those goals. In Krueckeberg and Silver's planning process stage 3, "Commitment must be made to a plan of changes expected to achieve the goals in the most effective or efficient manner." (Krueckeberg and Silvers, 1974, p. 4) We will choose to operate through the set of events with the least likelihood of deviating from our intent, in other words, with the fewest uncontrolled, independent variables. We will choose to operate through closed systems, through events modeled by closed models.

A closed system in its strictest sense is a system encompassing events all of which causes are defined within the system. The degree of closedness is the extent to which this is the case. An open system is open with respect to events which are not defined (controlled) by the model and are therefore independent as opposed to dependent on the other events within (controlled by) the system.

Is this process of inquiry into the nature of events reasonable? Does it have any limitations or biases which we should be aware of? Are there any qualifications we might wish to apply to it? If there are, might these qualifications affect our descriptions of planning problems?

One limitation that can be identified stems from the nature of our logic, specifically, its reliance on the law of identity. The process of analysis involves
conceptually manipulating a system by rearranging its elements. The assumption, taken for granted, is that each element itself remains unchanged as its spatial and temporal relationships to other elements are altered. In essence, each element represents a completely closed system. A completely closed system is one that is self-defined (internally defined) rather than contextually defined (externally defined). Our logic rests on the assumption of the existence of self-defined elements. The first law of logic, Aristotle's law of identity, states that "A is A" meaning that "A" is the same regardless of the context in which it appears or is used; it is a self-defined element. This "conservation of identity" makes "each element by itself a state of unchanging and static equilibrium with regard to its essence or meaning." (Burglass, 1971, p.14) Atomistic science is an obvious consequence of this logic.*

In applying logic to experience, to real life situations, we must be aware of the limitations, of the distortions imposed by its nature. Sartre ran into this problem when he tried to explain the possible relationships between two people. As long as he viewed each individual as being independently defined, their relationship, as viewed by either one, must be that of subject and object, looking and being looked at. By virtue of being independent they could not share the same experience of one another, the same subjectivity. For a mutual consciousness, intersubjectivity, the individuals could no longer be independently defined. The only alternative was that they be considered one in the same.

*The use of self-defined and independently defined elements is the issue of Goedel's indeterminacy theorems.
The same problem of the relationship between self-defined elements can be found in discussions of political institutions when one asks, "What is a democratic institution?" It is assumed that the form of the institution is what makes it democratic, irrespective of the actors within it. The democratic institution is itself seen as a closed system, as a determinant of democratic actions. The United States’ system of government is the actualization of a logical model designed by the Founding Fathers (an embodiment of the Rationalist tradition is social thinking). In contrast, the British system, built up through centuries of tradition, lacks our explicit network of checks and balances and relies more heavily on the independent decision making and good will of individual actors.

A similar dilemma is confronted in discussions of citizens' involvement. Again, the government is seen as a closed system and individuals as self-defined entities are objects to the government. The question, built on these assumptions, becomes, "How can citizens provide input to the system?" rather than "How might citizens share in their own governing?" Hence we have the creation of citizens advisory councils, citizens review committees, and the like. These committees themselves become part of the defined system and the dichotomy between citizen and government remains sharp, the relationship subject-object. Interaction, as with Sartre, is characterized by tension, conflict, dominance, and submission.

Yet another problem stemming from theories involving self-defined people was indicated by John Dewey.

"When the self is regarded as something complete within itself, then it is readily argued that only internal moralistic
changes are of importance in general reform. Institutional changes are said to be merely external. They may add conveniences and comforts to life, but they cannot effect moral improvements. The result is to throw the burden for social improvement upon free-will in its most impossible form. Moreover, social and economic passivity are encouraged."

(Dewey, 1948, p. 196)

Personal improvement is seen to be completely internal. One's relationship with the environment and with others might reflect the internal moral state, but are not important to it. Moral improvement is subject only to one's own will. One's experiences, how one is treated by others, the opportunities one has to act according to one's own will, are not important.

"But when self-hood is perceived to be an active process, it is also seen that social modifications are the only means of changed personalities. . . . And inquiry into the meaning of social arrangements gets definite point and direction."

(Dewey, 1948, p. 196)

Unfortunately, I have not found a method for consistently identifying the consequences of this aspect of our logic, nor do I know of another form of logic which avoids these biases. I must at present leave the specific problem of "wholeism" and "atomism" to be puzzled over.

There is another problem, which may be more susceptible to analysis, which arises from the application of the intention of control and use of mechanistic models in social situations, particularly where they are applied to people. The intention of controlling the behavior of others raises serious moral questions. Attempts to do so, as will be shown in the next chapter, have undesirable consequences. The use of causal models leads to inaccurate descriptions of human behavior. Human actions do not have efficient causes in the same sense as non-
vital, natural phenomena. Human beings control their own actions, they have their own purposes. They are subjects of their own actions. In the past, planning theories have not taken specific note of this issue in discussing the use of mechanistic models.

The problem does not always arise under explicit circumstances, where the intention to dominate and control the behavior of others is overt. It may stem from good management practices. It arises from the application of widely accepted social science models. It follows from the application of modern logic and scientific thought. In an attempt to root out its sources I will discuss the implications of each.

To the manager, in the earlier open and closed system examples, interested in effecting desired outcomes, other outputs may be tolerated if they do not affect other defined goals, but other input which may affect the intended outcomes are not tolerable. If the system devised by the manager for the achievement of the desired goals includes the actions of other individuals, they must act according to the system model. Independent actions would be uncontrolled inputs to the system. The factory manager may simply order his workers to do as they are told, not to act independently, not to make their own decisions. The public manager may proscribe behavior by law (e.g., trade laws designed to ensure the proper functioning of the market), or seek to operate through ways in which behavior is found to be dependent, potentially subject to indirect control. Allowing the system to be open to other actors is not considered a good practice, where it can be avoided.

The manager interested in effecting desired outcomes chooses those circum-
stances which place in him, the chooser, the greatest control. He will seek
to centralize control within himself making the systems for which he is respons-
ible, to the greatest extent possible, open only to himself. Those under him may,
if necessary, be allowed to interpret his commands into greater detail, but not
to deviate from them or otherwise make independent inputs. This is consistent
with the tentative conclusions of David Noble's research on the development of
numerical control machine tools as a specific example of technological development.
Technological progress, at least in this case, has had the effect of increasing mana-
ergial control and decreasing the amount of knowledge and skill not under the control
of management. It is not surprising to see many examples of increasing centrali-
zation in decision making and control, both in private industry and in government.
As the ability to centralize control increases through improvements in computation
and communication, management will take advantage of it.

In the case of the social sciences, the problem of attributing mechanistic
behavior to people comes from trying to model the practice of social science after
the successful practices of the natural sciences. Natural scientists posit fixed
laws according to which the natural world is seen to behave. This renders natural
phenomena predictable and repeatable. By manipulating events which we can control
directly, we are able to affect other events to which the former are shown to be
causally linked. This model well describes the classic example of billiard balls
interacting through a series of collisions.

Social scientists, in seeking to emulate the natural sciences, bring us full
swing. Where man once sought to explain nature using models gained from under-
standing vital man, they now seek to explain man using models gained from understanding a non-vital nature.* In the latter view, choice is viewed as determined, not free.

Here, social scientists want to confront a world where people behave according to fixed laws which are for social science to identify and utilize in designing policy. To the extent that people's behavior is fairly uniform (predictable) in response to a given stimulus (cause) that stimulus will be identified and utilized as a means of social control (i.e., pain, fear, money). B. F. Skinner's Behavioral Psychology (stimulus-response) is the epitome of the social sciences' trend toward a mechanistic view of man.

Though social scientists still view man's actions as being teleological and purposeful, the tendency in sociological and psychological literature has been to view such purposeful behavior in deterministic terms; relying on negative feedback. Many articles have been devoted to the problem of giving a mechanistic account of an act in terms of an event which is antecedent to it (or which in some cases has never actually happened). The emphasis on expressing events in terms of other empirically observable events, thus denying the "spiritual" half of dualistic philosophy, can be traced to the growth of positivist philosophies discussed in Appendix Two.

*Ancient Greek natural science was 'based on the analogy between the macrocosm nature and the microcosm man, as man is revealed to himself in his own self-consciousness.... Renaissance natural science was based on the analogy between nature as God's handiwork and the machines that are the handiwork of man.' (Collingwood, 1945, p. 9)
The assumption of mechanistic behavior is not just an attribute of certain overtly chosen scientific models. It is a characteristic of the mode of modern scientific explanation, a mode of explanation referred to as Galilean logic, in contrast to the earlier Aristotelian logic. The former mode explains events by reference to prior events, efficient causes, while the latter explains events by reference to purposes, final causes. Galilean explanations are mechanistic, Aristotelian explanations are called teleological (telos = end).

Aristotle, in trying to explain why a rock, when released, accelerated toward the earth, stated that the rock was a thing of the earth, hence naturally tended toward it. The rock became progressively more excited as it came nearer to home. In this explanation, the rock is the subject of acceleration, the rock accelerates. Newton observed the same phenomenon and asked the same question: "Why does the rock fall?" Without observing anything new or different, Newton simply approached the question with a different notion of causality. Why is the rock accelerated? Hence he is said to have discovered gravity. The rock is now the object of acceleration. With this reversal known as Galilean logic, modern science was born.

Neither explanation is true, per se. Both are simply forms of description within our grammatical structure. However, they stem from different intentions, reflect different theories of action, and lead to different conclusions. The idea of causality itself is a product of the sharp division of subject and predicate (rock/falling) - a characteristic of our grammar inherited from the ancient Greek - without which this particular question of why might never be asked.*

*The relationship between grammar and perception is discussed in Whorf, 1956. A
If a police officer stops you on the turnpike for speeding, you need not ask him whether he is Galilean or Aristotelean. He assumes that you are the subject of your speeding and therefore personally responsible for your choice. A planner, studying the issue of cars speeding on the turnpike, looks for causes external to you of which you are the object. It is not enough to know that you make your car speed.

Thus we may see that the problem of applying causal models and intentions of control to people is the problem of treating people as objects of events, objects of external causes, rather than subjects of events. Having refined the issue to this basic distinction, I may now proceed to assess its implications and significance for planning. The hypothesis to be tested is that the issue of applying causal models and controlled systems to human events, to people, has significant repercussions for planning. Stated otherwise, treating people as objects rather than subjects can be demonstrated to have undesirable consequences significant to planning goals.

To an individual perceiving himself to be a subject, control over his life circumstances is viewed as being internal to himself. To an individual perceiving himself as the object of event or of others, control over his life circumstances, his life's events, is viewed as being external to himself. This dichotomy is the basis of the construct in psychology known as "locus of control". In recent years, much empirical research has been focused on the significance of this construct. Most of the findings fall into two groups; obedience to authority and lack of motivation due

different evolution of science as occured in China is described in Needham, 1956.

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to a sense of helplessness. The origins of this research are as diverse as they are fascinating. A brief review of some of this research is presented in the next chapter as a test of my hypothesis.

In the following chapter works from the field of philosophy will be drawn on to connect my hypothesized issue to the issues of experience, alienation, vitality, growth, and emancipation. In the final chapter, the implications of this issue in planning will be discussed.
CHAPTER THREE: LOCUS OF CONTROL

Events in Nazi Germany during the Second World War produced many disturbing questions for the world. How could a civilized nation perpetrate such bestial and barbaric deeds, deeds requiring the complicity and awareness of many individuals? When the generals, officers, doctors, lawyers, judges, and other responsible officials were brought to trial at Nürnberg, they were not the evil, corrupt individuals the world had expected to find. In fact, they were found to be quite ordinary, banal people. How could such ordinary men be guilty of such horrendous acts? And the Jews in the camps, why had they submitted to their imprisonment, to their executions, with such little resistance? These questions were raised anew by the obedience experiments of Stanley Milgram in the early 1960's. (Steiner and Fishbein, 1965)

Psychiatrists have long pondered over the predicament of patients who did not change their behavior no matter what - who literally did not seem to "own" their own experiences. Similarly, educators were concerned about children with low tolerances to frustration, who gave up easily when confronted with difficult tasks.

In the late 1950's, Curt Richter began conducting experiments on the swimming endurance of rats. Under ideal conditions, he had observed rats capable of swimming up to eighty-one consecutive hours. In his experiments, he had set up large glass jars with turbulent water. Each rat was grasped firmly in a gloved hand while his whiskers were trimmed and was then placed in the jar. Richter found that the rat would "swim around excitedly for a few seconds, dive to the bottom apparently in 

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search of escape, and then, after swimming around for a short time belowe the surface, would suddenly stop and die. Most fascinating were the autopsy results which revealed that the animals had not drowned." (Lefcourt, 1976, p 9) Several rats whose whiskers had not been trimmed died in a similar manner. After much thought, observation, and further attempts to isolate the relevant factors, Richter concluded:

"This sudden-death phenomenon may however be considered also as a reaction at a much higher level of integration. The situation of these rats is not one that can be resolved by either fight or flight - it is rather one of hopelessness: being restrained in the hand or in the swimming jar with no chance of escape is a situation against which the rat has no defense. Actually, such a reaction of apparent hopelessness is shown by wild rats very soon after being grasped in the hand and being prevented from moving. They seem literally to give up." (Richter, quoted in Lefcourt, 1976, p. 9)

Herbert Lefcourt wrote of an interesting case he witnessed at a psychiatric hospital:

"A female patient, who had remained in a mute state for nearly ten years, was shifted along with her floor mates to a different floor of her building while her unit was being redecorated. The psychiatric unit where the patient in question had been living was known among the patients as the 'chronic hopeless' floor. In contrast, the first floor to which the patient was moved was most commonly occupied by patients who held privileges, including the freedom to come and go on the hospital grounds and the surrounding streets. In short, the first floor was an exit ward from which patients could anticipate discharge fairly rapidly.

Patients temporarily moved from the third floor were given medical examinations prior to the move, and the patient in question was judged to be in excellent medical health though still mute and withdrawn. Shortly after moving to the first floor, the patient surprised the ward staff by becoming socially responsive and, within a two week period, she ceased being mute and was actually becoming gregarious. As fate would have it, the redecoration of the third floor unit was soon completed, and all previous residents were
returned to it. Within a week after she had returned to the 'hopeless' unit, the patient, like the legendary Snow White who had been aroused from a living torpor, collapsed and died. The subsequent autopsy revealed no pathology of not, and it was whimsically suggested at the time that the patient died of despair." (Lefcourt, 1976, p. 10)

Starting in the late 1950's, researchers became interested in the correlation between a belief in luck and academic achievement in school children. Among the tools they used were forced-choice questionnaires, such as the Rotter Internal-External Locus of Control Schedule, with questions like:

11. a. Becoming a success is a matter of hard work, luck has little or nothing to do with it.
   b. Getting a good job depends mainly on being in the right place at the right time.

18. a. Most people can't realize the extent to which their lives are controlled by accidental happenings.
   b. There really is no such thing as "luck." (Rotter, 1966)

A strong positive correlation was found between students who tended to answer 11.a and 18.b and achievement in school. Those students who felt more strongly that they had control over events in their lives were more persistent and successful learners than those students who felt that events in their lives were more the result of chance or some other external cause. It is in these studies that the term 'locus of control' came to be used.

"The idea of control and helplessness can be very clearly defined in terms of conditioning. Operant conditioning is taking place when the individual "operates" on his environment and controls reinforcement. The rat in the Skinner box pressing a bar for a food pellet is a well known example of operant conditioning. The rat has learned to act in a certain way to affect his environment. He is in control of the arrival of the pellet or of his reinforcements. He has learned that his actions effect certain outcomes.

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"If the pellets arrive when the bar wasn't pressed, or rather whether or not it was pressed, it would soon learn that bar pressing was irrelevant to the arrival of the food pellets. It may try pressing the bar a few times, just in case it worked again, but eventually extinction would occur. Another term for this is giving up. This type of situation can easily be imagined in terms of human behavior. You give up when you realize that your actions will not change the outcome of an event. You feel helpless in that situation. Helplessness has been defined in the following manner: 'A person is helpless with respect to some outcome when the outcome occurs independently of all his voluntary responses.' (Seligman, 1975, p. 17)

"The situations of classical and operant conditioning are obviously extreme and simple models that aren't typical of all situations humans find themselves in. People are constantly in a variety of complex environments that are hardly as clear as the two above and yet we do formulate some picture of our helplessness or control. The degree to which an individual feels one way or the other is known as his locus of control. The locus of control construct is a scale with the sense of control at one extreme and helplessness at the other. In the locus of control model these extremes would be called internality and externality respectively. The individual who tends toward the internal end of the scale feels that he does have an effect on outcomes of events. He would attribute reinforcements (I don't mean positive or negative in particular) to internal causes. The individual tending toward the external extreme would be more likely to feel that events were externally controlled and that outcomes should be attributed to causes external to himself." (DeTemple, 1975, pp. 1-3)

"The source of interest in this construct did not begin simply with theoretical concerns but with problems encountered in psychotherapy. ... 'Clinical analysis of patients suggested that while some patients appear to gain from new experiences or to change their behavior as a result of new experiences, others seem to discount new experiences by attributing them to chance or to others and not to their own behavior or characteristics.' (Rotter, 1966) ... No matter the experiences one has, if they are not perceived as the results of one's own actions, they are not effective for altering the ways in which one sees things and consequently functions." (Lefcourt, 1976, pp. 29-30)

Richard deCharms, working with black pupils from inner-city schools, described the construct slightly differently.
"When a person initiates intentional behavior, he experiences himself as having originated the intention and the behavior. He is the locus of causality of the behavior and he is said to be intrinsically motivated. Since he himself is the originator, we refer to the person as the origin.

"When something external to the person impels him to behavior, he experiences himself as the instrument of the outside source, and the outside source is the locus of causality. He is said to be extrinsically motivated. Since the person is impelled from without we refer to him as a pawn. We sometimes talk of people as primarily pushed around by outside forces. Conversely, we refer to people as primarily origins implying that they characteristically see themselves as originating their own behavior." (de Charms, 1972, pp. 96-97)

While locus of control focuses on contingencies between actions and outcomes, de Charms' origin-pawn dimension deals with perception of one's self as a subject or object of actions.

de Charms established training programs specifically aimed at encouraging origin behaviors in the schools. He found that he was able to arrest the increasing discrepancy between these inner-city school children and the national norms for scholastic tests by such personal causation training.

Another group of studies, conducted by David Glass, Jerome Singer and others, concerned themselves with the issues of anxiety and frustration. In one of the studies, subjects were asked to perform a series of simple tasks and also a set of more complex puzzles and proof-reading tasks. While performing these tasks, different groups of subjects were exposed to (a) a loud noise for a duration of 9 seconds repeating every one minute, (b) a loud noise of random duration at random intervals, and (c) and (d) a softer noise with the same timings as (a) and (b). While intensity of the noise had some effect on subject performance, a far
greater difference was observed in comparing the effects of predictability. "If noise, or any aversive stimulus for that matter, were unanticipated, the shock value of the stimulus would no doubt be augmented. Who has not found himself startled by soft but unexplainable sounds occurring in the night" (Lefcourt, 1976, p. 4)

After the above sessions, the puzzles and proof-reading tests were conducted without the interference of the noise. The subjects who had previously been exposed to the predictable noise differed little from the control group which had not previously been exposed to noise. The groups which had previously been exposed to the random noise performed significantly worse than the other groups.

In a second study conducted by the same researchers, all of the subjects were exposed to the loud random noise. This time half of the subjects were given a button that would enable them to terminate the noise, should they so desire, but were encouraged not to.

"Subjects with access to the off switch tried almost five times the number of insoluble puzzles and made significantly fewer omissions in proofreading than did their counterparts who were given no such option for controlling the aversive stimulation. These differences were obtained despite the fact that none of the subjects who had potential control actually used it. The mere knowledge that one can exert control, then, serves to mitigate the debilitating effects of aversive stimuli." (Lefcourt, 1976, p. 5)

These experiments have obvious implications for city living. In fact, all of the subjects in the above-mentioned Singer and Glass studies were from New York City. To better understand the implications of these findings we should look more closely at perception and awareness.
"If we know a sound, such as the starting of a furnace motor, we know from where it originates and what consequences may be expected from that sound. The sequence is predictable; nothing untoward is anticipated. The sound will not change in pitch or intensity. If unusual changes do occur, we would become suspicious of the working of that furnace and summon a repairman. In short, predictability is a major facet of knowing something. The consistency and reliability of noise in the investigation described above instructs the subject that subsequent changes in volume and timing of the noise are unlikely; there need be little apprehension of a sudden increased intensity. As regularity is perceived, the subject can also ready himself, slowing down in his work efforts when he anticipates the onset of noise. He can, therefore, avoid interruptions by not letting himself be caught unawares and be distracted in the midst of an activity." (Lefcourt, 1976, p. 5)

It is not so much the noise itself that is disturbing as its effect on us. Knowing that a noise exists, i.e. reading about it, does not bother me nearly as much as the direct experience of it. When I can correctly anticipate the noise (or other potentially disturbing event), I may prepare myself. I, therefore, have the opportunity to have some control over its effect on me. Why the noise could affect me in the first place has to do with the nature of perception and awareness. The extent to which a stimulus becomes the object of awareness is related to the potential significance it has for our existence. "To an animal an affection [percept] of the eye or ear is not an idle piece of information about something indifferently going on in the world. It is an inducement to act in a needed way." (Dewey, 1948, p. 87) A sudden noise demands significant attention until it can be determined that it does not indicate anything threatening. You may recall experiencing the sudden "rush of adrenalin" when shocked by, say, someone stepping out from behind a corner you were just about to reach. In situations demanding
continued vigilance because of apprehensions of sudden unpredictable situations, we naturally respond by maintaining a heightened state of readiness. Businessmen in high pressure situations and others who sense themselves to be in constant danger are found to have high blood pressure caused by secretions from the adrenal gland. This continued tenseness takes its toll on the ability to devote undivided attention to other aspects of human functioning.

Taking things to an extreme, Staub, Tursky, and Schwartz (1971) found that subjects who were allowed to administer electric shocks to themselves and select the level of intensity of the shocks reported less discomfort at higher levels of shock and endured stronger shocks than did paired subjects to whom shocks were administered passively. This may seem a bit extreme, but when thinking about the issues of control, foreknowledge, and understanding, we may begin to gain new insights into such things as willingness of workers to exert themselves and the tolerance of citizens for higher taxes and increased regulations. The combinations of control and predictability become a powerful tool for understanding society. O. H. Mowrer, who conducted similar experiments with rats twenty years before Staub, Tursky and Schwartz, wrote, "Perhaps we have isolated here, in prototype, one of the central reasons why human beings so universally prize freedom and why threats to freedom, under a totalitarian regime, are anxiety-producing." (Mowrer quoted in Lefcourt, 1976, p. 8) We may also better understand the importance of harmony, order, and stability to the "weary travelers" of our times. One's life can become unpleasantly frenetic if too many things are demanding of one's attention.
But what about obedience and the Milgram experiments? In the mid-sixties Stanley Milgram conducted experiments in which subjects were instructed to administer shocks to an accomplice of Milgram. Many of the subjects continued to follow the instructions even when it appeared that the accomplice (an actor) was suffering serious physical pain and injury from the shocks. As Milgram later wrote, "A substantial proportion of people do what they are told to do, irrespective of the content of the act and without limitations of conscience, so long as they perceive that the command comes from legitimate authority." (Steiner and Fishbein, 1965, pp. 261-262)

However, not all of the subjects had remained submissive to the experimenter. Later researchers, conducting similar, though not quite as dramatic, research, labeled their subjects as externals or internals on the basis of attitude tests. As Lefcourt described his findings after a series of experiments, "internals were unresponsive to the experimenter's instructions, suggestions, and manipulations, whereas externals readily capitulated, behaving, almost to a man, in accord with task directions." (Lefcourt, 1976, p. 46) Lefcourt concluded that an internal locus of control can operate as a "bulwark against unquestioning submission to authority". Other experiments have supported and elaborated this contention.

Experiments on the influence that arguments have in shifting people's views found that externals were more likely to shift their views when influential arguments were attributed to a prestigious government official than when the same arguments were attributed to a college sophomore. Internals were not significantly affected by who the arguments were attributed to, and were more likely to be
influenced by the quality of the arguments themselves. A study by James, Woodruff, and Werner (1965) on the decision to quit smoking, found that in this case, not only were internals less affected by authority and more discriminating in which influence they will accept, but having accepted the information, they were more likely to have changed their behavior in response to it.

Still other experiments, particularly by Pearl Gore (1962), investigating under what circumstances internals would and would not cooperate, found that when internally oriented subjects felt that the experimenter was using coercion and subtle manipulation, in other words, treating them as objects, pawns, they became resistive, almost playfully negativistic. On the other hand, when the experimenter shared his hypothesis with the subjects, inviting them to join him in objectively studying their behavior in the experiment, thus showing respect for them as persons, in other words, treating them as subjects, allowing active participation, self-direction, the subjects became more responsive to the experimenter. I suspect that applied in work situations, not only would internally motivated workers be more responsive, but they would show added, self-directed initiative, in comparison with externally motivated coworkers. The well-known problems of GM's Lordstown plant clearly show the behavior of internally motivated workers in a manipulated, externally directed environment.

The implications of all of these findings are vast. Clearly internal motivation is essential for performing the proper role of a citizen in a democratic society. However, the promotion of external motivation, in essence, the breaking of an individual's will, is essential for, and makes possible, the smooth functioning
of a strongly centralized social structure, whether in labor management or totalitarian states. There are still other findings coming from this particular line of research.

Milgram was to some extent inspired by the murder of Kitty Genovese in a densely populated section of New York City. Although her screams and cries for help were heard for a long period of time by many people, no one sought to help her or even called the police. A study by Midlarski (1971) found that internals were more likely to help another individual than were externals, even when they were penalized for doing so. A later study further concluded that internals are more tolerant of discomfort in doing what they consider to be correct than externals. We can imagine, with the issue of apathy, that externals would be more likely to say, "That's not my business, not my responsibility".

The moral aspects of the above findings are quite clear. "If our hypothesis is correct, when a person believes that he is the responsible agent or source of his own life's fortunes, he will resist influence attempts which aim to bypass his own sense of moral justice and will only respond to those appeals that address themselves to his own beliefs and values." (Lefcourt, 1976, p. 50) We may now better understand Lefcourt when, in reference to Hannah Arendt's book Adolph Eichmann in Jerusalem: A Report on the Banality of Evil, she stated, "the most horrendous acts derive more from obedience or compliance to social order than from sadistic impulse." (1976, p. 36)

"The Führer's order for the Final Solution was followed by a huge shower of regulations and directives, all drafted by expert
lawyers and legal advisors, not by mere administrators; this order, in contrast to ordinary orders, was treated as a law."
(Arendt, 1963, p. 133)

Again in Lefcourt's words, "the horrors perpetuated by the Nazi officials were legitimate, conforming to acceptable standards, and men like Eichmann felt that it was not for them to question, since what they were asked to do was legitimate."
(1976, p. 37) Lefcourt's words have a startling similarity to current discussions in planning theory. It is proposed by some that in the absence of certainty and the flux of moral standards, that planners might seek justification in processes of policy making which conform to acceptable standards. Thus, in looking back, we may see errors made but we will not condemn the people responsible for the decisions if they are seen to have followed acceptable procedures. This does not support an abandonment of standards. Rather, in every situation where those "standards" are applied, the standards themselves must be subject to scrutiny in the broadest context. The planner, regardless of how widely practiced the procedures he uses may be, must still accept personal moral responsibility for his own actions and their consequences.

From their own teleological point of view, there are many good reasons that planners should want to encourage a perspective of internal locus of control in individuals and should design social institutions and environments which support such an attitude. Ateleologically, self-motivated interactions with the environment are, for Dewey and others, the "true 'stuff' of experience". Richter's rats and the case of the patient in the hopeless ward might even support the contention that a sense of control is the focus of life itself. In fact, as Jeanne DeTemple described it:

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"There would seem to be a basic need or drive to control one's environment, to have some effect on it. Experiments with rats and pigeons have shown that when they are given the choice of 'free food' or food which comes as a result of their actions (bar pressing or pecking) they choose food which they obtained through active control. (Carder et al., 1970) The same need and preference for control has been seen in infants. (Watson, 1971) Infants smile at mobiles whose movement is contingent on their actions, but not at mobiles that are unaffected by them. Both of these experiments point to the theory that what is sought is not simply the quality of the experience (obtaining food or seeing the mobile move) but the sense the individual has that it was his own actions that controlled the experience. This idea is certainly linked to Piaget's stage of efficacy and causality. If you believe in the need for an individual as he develops to experience his own effect on his world, a plausible explanation is offered for the disastrous development of some institutionalized children deprived of stimulation (see Provence & Lipton, 1962). Children deprived of stimulation are necessarily deprived of the opportunity to control it. The infants raised in dull environments which were unresponsive to their efforts (crying, moving), soon learn that their actions were irrelevant to the changes in their lives (feeding or the arrival of the caretaker). They learn that they are helpless rather than learning what they control. Extreme helplessness has been seen to often lead to depression and emotional problems. (Seligman, 1975)" (DeTemple, 1975, pp. 11-12)

Although I have not read any research done in the area,* there is speculation that deprivation of opportunities to exercise individual control may lead to antiinstitutional and often violent responses. Such responses may be viewed as assertions of individuality, subjectness, not unlike the "playful negativity" of internal subjects in the manipulation experiments. This would be the same kind of behavior as the efforts to preserve a subjective identity in R. D. Laing's The Divided Self. Much behavior termed anti-social is actually anti-institutional.

*There is apparently a recent study by Jessop, Graves, Hansen and Jesser on access to opportunity in a town in the Southwest which correlates deviant behavior with lack of access to desired outcomes.
As a child, I visited the family of a school principal in Winnipeg, Canada, and was told this story which has stayed in my memory. The principal's school had a serious vandalism problem. Students had been throwing rocks through the windows after dark. As a response to this, the school had installed several bright lamps along the top of the high gymnasium wall to illuminate the school yard. Those students who had been breaking the windows apparently turned their attention to the newly installed lamps. The lamps were soon broken, but while they had been the targets, significantly fewer windows had been broken. Somebody in the school department came up with a bright idea. The lamp lenses were replaced with stronger plastic lenses, but also, special sensors were installed. When a lamp was struck, jarring the sensor, the lamp would automatically be switched off. Ten minutes later the lamp would turn itself back on. Students did indeed continue to attack the lamps in preference to the windows. However, they were apparently satisfied with causing the lamps to turn off, and the school maintenance budget was significantly reduced. I might interpret this as the students in question feeling a need to demonstrate that the institution of the school could be affected by their power even if in only a small and symbolic way. The lamps became an obvious target of greater resentment because they were a symbol of the school's efforts to prevent them from demonstrating that control. Is it any wonder that street fixtures specially designed to be user-proof are prime targets of vandals?

Another interesting case is that of a park in Somerville, Massachusetts, which had significantly less vandalism than other parks in the area. Upon
investigation it was found that the workmen who constructed the park had been particularly friendly with the local kids allowing them to help in minor aspects of construction. When they finished, they told the kids that they would be responsible for the park from then on. Having an authorized sense of responsibility and having already exercised constructive control in aiding in the creation of the park, vandalism lost much of its value as a means of demonstrating personal control of that environment.

There is also support for my thesis in the concept of "Ressentiment", a term coined by Nietzsche and used extensively by Edgar Friedenberg. Friedenberg describes it as "a free floating disposition to visit upon others the bitterness that accumulates from one's own subordination and existential guilt at allowing oneself to be used by other people for their own purposes, while one's own life rusts away unnoticed." (Friedenberg, 1975, p. xi)

All of these ideas pose a strong condemnation of the kind of world B. F. Skinner proposes in Beyond Freedom and Dignity. "It is paradoxical... that the very surrender of the belief in free will advocated by Skinner as a step in the direction of a less violent world can be viewed as a source of increased violence, especially that of a prosocial kind." (Lefcourt, 1976, p. 3)

John Masters (1970) reported a very interesting case of "adolescent rebellion" which was reduced by therapy involving the "reconstruction of causality". The young adolescent had been arrested for trying to steal a neighbor's car. (He was inebriated at the time.) He was placed in a detention home the same evening where he became agitated and destroyed the furnishings in his cell. Clinical
interviews revealed that he had been mildly depressed for about a year and had been experiencing a growing antagonism toward his family (reaching the point where some physical violence had occurred). The youth described himself as "put down", a pawn of his parents wishes.

"The client's initial perception of the relationship between himself and his parents was one in which the parents were the almighty controllers. He interpreted commands (which may actually have been requests) to mow the lawn or wash the car as infringements on his personal freedom. As these examples were brought out during therapy, it was pointed out that they could be used to his advantage. It was argued that parents learn to reward what they label "good son behavior". This category of behavior includes a large number of distinctly menial chores which by many adolescents are considered degrading. It was then argued that they are degrading if one falls into patterns of performing them blindly or playing the game without being aware of the rules. However, such behaviors could also be performed intentionally and "contingently" as a method for controlling parental behavior.

A series of behaviors were planned in order to demonstrate this hypothesis. On one day it was decided that GB was to mow the lawn without being asked and then to report in detail the effect of his maneuver on his family. The initial report was that his father had difficulty in responding, that he thanked GB, and subsequently he seemed less likely to enter into verbal arguments. It was interpreted to GB that he had become "master" of this game and had turned some tables. The father now felt obligated, and GB had very effectively controlled the father's arguing behavior as well by removing a primary inciting stimulus from the father's repertoire. He also had prevented his father from commanding (requesting) him to mow the lawn by his early performance of the task, thus removing an oppressive stimulus from his environment.

"Gradually the above procedure was applied to various good son behaviors such as washing the car or helping out in the family business. The results were consistantly positive. Most notable were a reduction in friction between GB and his father and early restoration of the use of the family car. . . . Tangential to the planning of manipulative good son behaviors were discussions concerning behaviors likely to produce friction. . . . It was stressed that the father was the foil in
this game, since his anger was automatic and unwitting. GB, however, would be the master since he could predict his father's behavior and thus control it by failing to provide the necessary stimuli (coming home late). The point of the therapeutic arguments was always to describe the emission of good son behavior as an effective method for the control of parental behavior." (Masters quoted in Lefcourt, 1976, p. 122)

Other aspects of therapy involved reinterpreting events which remained unchanged, contributing to improved relations with the family and improved morale. Eight months after therapy the youth was found in good spirits and doing well in school.

What is interesting about this case is the reversal of the master-slave relationship, at least in the mind of GB. This peculiar turning of the tables, the role ambiguity, is an important coping mechanism for the victims of slave-master relationships. By "playing up" to their dominators, the oppressed are in fact manipulating those very people who assume themselves to be in control. In so doing they retain a degree of self-dignity in an otherwise degrading situation.

Admittedly, an attitude of internal control of life events is not always in an individual's best interest. Viewing oneself as an object of traumatic or frightening events can be an important defense against a crushed sense of self or sense of endemic impotence. One can understand the traumatic impact of the defense lawyer's questioning a rape victim's appearance and behavior. In fact, as reported by a rape counsellor known to this writer, the rape victims who seem the least affected by the event report having viewed their bodies as objects of their own cognizance, disconnecting it from their sense of self, isolating their egos completely from involvement and thus avoiding the dehumanizing sense of a violation.
of the innermost self, that which is the most personal being used by another. In a milder form, we have the sheepish behavior of the insecure trying to appear as a nobody in situations of social visibility or potential embarrassment rather than having their subjective identities called into question or held up for ridicule.

Among the poor and down-trodden, an unrealistic sense of power and control would seem delusional and would result in some personal anguish. Imagining personal potential control in a situation where such is not the case would lead to unnecessary disillusionment and feeling of personal failure and impotence.

The relationship between locus of control and an understanding of the poor merits further discussion. Many of the poor and, in particular, welfare recipients are often accused of lacking a sense of the future, of spending what little money they get on immediate gratifications. An external locus of control has been directly related with such a lack of concern with the future. When one feels little or no control over one's own destiny, what is one left with but a sense of the immediate. One's span of awareness of and concern for the future, about which there is little one can do, diminishes. As Lefcourt describes it:

"The image of an individual at the brink of suicide, being trapped within the immediate moment, for whom the future has ceased to exist as a meaningful and positive force, and who experiences himself as helpless to effect his fate toward positive ends spells out for us the potential mutual relevance of the perceptions of time and personal control, as have few of the previous studies." (1976, p. 77)

If the poor feel that helpless, why do they persist in their drudging existences? When I think of the poor in this country and the American dream I cannot help but think of those rats swimming in Richter's jars. Richter had found
that if the rat were rescued from the jar just once, it would come to believe that if it only persevered all was not hopeless, torture was not infinite. The rat would then persist in swimming for lengthy periods of time, presumably hoping for Richter's hand to return and rescue it once more. It has often been suggested that such is the significance of gambling among the poor. Perhaps from their perspective it is the best investment in the future they could make, the only hope.

These points have many important implications for welfare systems and retirement. Retirement has been viewed as the utilitarian ideal of comfort, relaxation, and enjoyment of pleasures. For many, this lack of meaningful endeavor, this shift to a dependent situation, being cared for by the government or a pension plan, worse, by a nursing home, symbolizes a lack of vitality. My grandfather, who had struggled all his life to stay out of poverty, committed suicide after retirement.

Welfare has become so blatantly manipulative, so inflexible and unconcerned with the problems of individuals, little needs to be said. How can anyone struggling to maintain an existence under the programs and administrations of welfare view themselves as anything but helpless victims? Welfare regulations reflecting our feelings of how recipients should behave do not function as a filter to select worthy recipients but, to people dependent on the system, control every facet of their lives.

The issue of crime among the poor may also be understood in terms of locus of control. The effectiveness of punishment as a deterrent to crime rests on the potential criminal viewing his fate as contingent on his own actions. We have all heard of young boys, already professional criminals, who view prison sentences as
unfortunate circumstances that just have to be endured. The simple point of the matter is that one who does not have experience and belief in his own control over his life circumstances, his environment, cannot be expected to feel responsibility for his own actions in the way our laws (moral and political) are expected to have an effect. Our prisons, for example, have one origin in an old Quaker concept of a man with an inner sense of responsibility being brought back into contact with it by being left alone in a room with a Bible in it. I am reminded of a suburban town I lived in where adolescent youths were seldom treated with respect or trusted with responsibility. They were always being harrassed when more than two of them congregated together. The problem of youth crime was a vicious circle.

But it is not only street crimes that can be viewed through the locus of control construct. White collar crimes and, more directly, the kind of quasi-moral behavior Solzhenitsyn referred to in his 1978 Harvard commencement address when he complained that the letter of the law had replaced personal moral conviction, can just as easily be related to the locus of control concepts. The tendency to legislate conformity (in the guise of compliance to standards) is exactly counter to what these arguments would recommend. It is not surprising that when we respond to issues with legislation, legal standards - in effect telling people what is right and wrong, taking responsibility away from their own judgments - that the minimums become the maximums.

The poor success rates of our reform programs may also be related to locus of control. By placing convicted criminals in total institutions where they are overtly made victims of the system, they have no opportunity to acquire a sense of
responsibility or learn the basics of good citizen behavior. Those who come in with some sense of responsibility may actually have that sense extinguished.

After having applied the concept of locus of control so extensively, I should like to reassert that it is only a construct, a theory like any other, useful as a means for describing and interpreting events, but not an objective fact in the sense of a thing in itself. It is used to describe an attitude, a predisposition to view events in a certain way. It is not a characteristic of people like red hair or blue eyes. One would be hard pressed to find somebody who views all events as being subject to his own will or no events over which he might exert the slightest influence. What tends to be the case is that people view certain events or kinds of events as beyond their control while other events or kinds of events are viewed as potentially within their control.

While I used locus of control to explain vandalism, it would be naive to expect it to explain all vandalism. Nor should we expect that by changing attitudes about locus of control in all vandals we would eliminate all vandalous acts. Locus of control might only play a small part in the actual decision to gamble by an individual.

But locus of control is an analytical tool which may be used, along with others, by planners and psychologists to understand the situations they confront and devise strategies for improvement. The locus of control research is used here to provide empirical evidence and meaning for the Galilean-Aristotelean dichotomy. The two issues correspond in that they both use the same subject-object construct. They differ in that the former views events from a point internal to an actor in the
events described while the latter views the events from a point external to that actor.

My hypothesis was that this issue is of significance to planning. I assume that planners would desire that people make moral judgments, accept responsibility for their acts, and actively seek to better their own lives. Therefore, I will assert that the weight of the evidence here presented would indicate that as a social policy it is undesirable to treat people as objects. Furthermore, in light of the evidence of improvement in locus of control attitude which was shown to accompany appropriate social situations and therapies, it is a desirable social policy to encourage independent, responsible actions by individuals by designing systems which accept people as subjects, allow them greater opportunity to exercise their own subjectness.

The planning implications of these findings will be presented in the final chapter. In the next chapter other implications of the subject-object construct will be drawn from major works in philosophy and social theory. The intention will be to show how the distinction is related to other issues relevant to planning.
CHAPTER FOUR: SOCIAL THEORY

In this chapter I shall attempt to connect the subject-object distinction, as an issue in description and theory, and several major social issues drawn from the field of philosophy. My intention is to explore some of the broader social implications of the hypothesized issue. I have chosen to discuss John Dewey's notion of experience, which is central to his social and educational theories, Karl Marx's early writing on alienation, and the basis of the existentialist point of view. All of these theories are found to support the contention of my hypothesis that there is an important distinction between treating people as subjects and treating them as objects, people acting as subjects and people acting as objects. The final section of this chapter deals with theories pertaining to the emancipation of individuals from determination in their lives. Aspects of the issues raised in this chapter appear in problems confronted by planners. Hopefully, this chapter will serve, on the one hand, to deepen our understanding of the hypothesized issue and, on the other hand, to help us recognize more readily where the issue may be of relevance.

Experiencing oneself as the subject of events has an important role in the thinking of John Dewey. It is the connection between doing and undergoing the consequences which formed what he calls experience. In contrast to a mechanistic psychology which views mental life as originating in an awareness of passively received sensations, "experience becomes an affair primarily of doing". (Dewey, 1948, p. 86) What is important to life is actually being a subject, carrying out actions affecting the environment which stem from one's own intentions. "Even a
clam acts upon the environment and modifies it to some extent." (p. 86) For philosophy, "the interaction of organism and environment, resulting in some adaptation which secures utilization of the latter, is the primary fact." (p. 87) This is essentially the same view as held by Lefcourt. In commenting on some recent locus of control studies involving health and fatality rates in nursing homes, he ventured that the normal condition of living creatures is to affect things.

Friedrich Nietzsche, in The Will To Power (section 649), states, "The influence of 'external circumstances' is overestimated by Darwin to a ridiculous extent: the essential thing in the life process is precisely the tremendous shaping, form-creating force working from within which utilizes and exploits 'external circumstances.'" Allowing others to develop and exercise their own creative forces is a part of accepting them as subjects.

Karl Marx is in agreement here. For Marx, man vitalizes himself through the transformation of nature, reproducing himself in nature. But he is only vitalized when he is the subject of his labor, when his activity is initiated by his own intentions and the products are the objects of his own will. When his labor is the object of another being, he experiences alienation.

"What constitutes the alienation of labour? First, that the work is external to the worker, that it is not part of his nature; and that, consequently, he does not fulfill himself in his work but denies himself, has a feeling of misery rather than well being, does not develop freely his mental and physical energies but is physically exhausted and mentally debased. . . . His work is not voluntary but imposed, forced labour." (Marx, 1963)

The worker works only to fulfill a physical need, the need for survival. But the work he does is not his own, not initiated by himself, not producing goods for his own use, not serving his own enjoyment.
In line with the dualism mentioned earlier, Marx draws a distinction between species-life and individual physical existence. Species-life is the aspect of human life that makes it distinct from animal life. "In the type of life activity resides the whole character of a species, its species-character; and free, conscious activity is the species character of human beings. Life itself appears only as a means of life."

"It is just in his work upon the objective world that man really proves himself as a species-being. . . . The object of labour is, therefore, the objectification of man's species-life; for he no longer reproduces himself merely intellectually, as in consciousness, but actively and in a real sense, and he sees his own reflection in a world which he has constructed."

"Just as alienated labour transforms free and self-directed activity into a means, so it transforms the species-life of a man into a means of physical existence." "Thus alienated labour turns the species-life of man, and also nature as his mental species-property, into an alien being and into a means for his individual existence. It alienates from man his own body, external nature, his mental life and his human life."

Marx clearly rejects the notion of behavior being determined by nature, mechanistic. For animals behavior might be innate, necessitated, but for man it is free, subject to his intellect. He also rejects any notion that labor might serve some purpose other than the intentions of man. Therefore, there can be no justification for imposing restrictions on men's labor other than reasons put forward by men.

"If my own activity does not belong to me but is an alien, forced activity, to whom does it belong? To a being other than myself. And who is this being? The gods? It is apparent in the earliest stages of advanced production, e.g. temple building, etc. in Egypt, India, Mexico, and in the service rendered to the gods. But the gods alone were never the lords of labour. And
no more was nature. What a contradiction it would be if the
more man subjugates nature by his labour, and the more the
marvels of the gods are rendered superfluous by the marvels
of industry, the more he should abstain from his joy in
producing and his enjoyment of the product for love of these
powers."

(We might include society along with the gods and nature.)

"The alien being to whom labour and the product of
labour belong, to whose service labour is devoted, and to
whose enjoyment the product of labour goes, can only be man
himself. If the product of labour does not belong to the worker;
but confronts him as an alien power, this can only be because
it belongs to a man other than the worker. If his activity is a
torment to him it must be a source of enjoyment and pleasure
to another. Not the gods, nor nature, but only man himself
can be the alien power over men."

If man "is related to his own activity as to unfree activity, then he is related to it
as activity in the service, and under the domination, coercion and yoke, of another
man." Marx devoted most of his attention to labor, on man's labor being dominated
by others. But man's environment could likewise be dominated by others, alienated
from him. It is only in his environment that his species-being can be affirmed. If
his environment is unresponsive, controlled by others, that opportunity does not
exist. Planning which denies the species-being of man, or simply ignores it, is a
source of alienation, just as "forced labor" is.

Alienation results when government officials impose their will on an unwilling
or unwitting populace. Can planning be justified as being for the good of the
people if it serves to alienate them from their environment, from their government?
What are the social consequences of the tendency toward increasing centralization
in business and in government, particularly in policymaking where planners form
a growing professional elite? Have our concepts of freedom and liberty become more limited and abstract? To what extent should alienation and the reduction of personal freedom be criteria in policy analysis? These are serious questions with broad implications for government action. Whether people experience themselves as subjects or as objects of government action, whether government action contributes to the growth of individual "species-life" or to alienation are realities which planners play a major role in determining by their actions.

John Dewey, in his book *Reconstruction in Philosophy*, argues that the purpose of all social institutions is to "set free and to develop the capacities of human individuals".

"Government, business, art, religion, all social institutions have a meaning, a purpose. That purpose is to set free and to develop the capacities of human individuals without respect to race, sex, class or economic status. And this is all one with saying that the test of their value is the extent to which they educate every individual into the full stature of his possibility. Democracy has many meanings, but if it has a moral meaning, it is found in resolving that the supreme test of all political institutions and industrial arrangements shall be the contribution they make to all-around growth of every member of society." (Dewey, 1948, p. 186)

Dewey was very critical of the Utilitarians and their effects on the thinking of his day. He felt that society was too often viewed as a means of increasing material wealth rather than individual growth. He bemoaned the attitude that life goals were things to be attained and possessed rather than continuously reaffirmed.

"Not perfection as a final goal but the ever-enduring process of perfecting, maturing, refining is the aim of living. Honesty, industry, temperance, justice, like health, wealth, and learning are not goods to be possessed as they would be if they expressed fixed ends to be attained. They are directions
of change in the quality of experience. Growth itself is the only moral 'end.'" (Dewey, 1948, p. 177)

This, too, is the basis of the existentialist point of view as espoused by Sartre and others. The real, vital self is only a possibility "unless and until it realizes and establishes itself in decisions; it comes into existence only in coming to decisions. What kind of decisions? All kinds; but above all, the acknowledgment that decisions are required of me, the awakening of my unlimited responsibility, 'Condemned to be free' in Sartre's phrase." (Blackham, 1965, p. 6)

"I cannot take refuge in what 'is done,' nor in what is required, nor in thought-out principles: insecurity, care is our lot. Thinking which brings this home is valid; thought taught as 'results' gives out a security which can never be ours. This insecurity, however, is the condition of spontaneity, vitality, passion, creativity, the condition of human life and living; whereas all our securities are states of death." (Blackham, 1965, p. 6)

Existentialism emphasizes experience of the self as a subject. Sartre wrote at length on the tension between subject and object perceptions. In seeking to help others, as in the field of psychiatry where Existentialism has been particularly influential, it is stressed that the other must be met as a subject. The analyst, "trained in a particular school, is liable to be 'blinded by science,' to see only what he has been schooled to recognize, whereas the existentialist refuses to see in the 'other' an object of knowledge and is ready to 'encounter' and 'meet' a person even in a patient." (Blackham, 1965, p. 13) This advice is meaningful for the planner as well. He must not see others merely as objects in his models of reality, but encounter them as real persons, subjects in their own environments.
If we are to accept John Dewey's argument that individual growth should be the ultimate goal of all our programs, then we must have some understanding of what growth is. Growth and learning is an active process of which the individual must be the subject. We don't grow kids; kids grow, mature, just as in the analogy, given the right conditions, the acorn develops into an oak tree. (Horney, 1950) By learning one acquires the tools with which to confront the world. Understanding means being able to affect our relationships with the given events. If we can predict events we can adjust our lives to reap the greatest advantage of events. If we can affect events, we can alter situations to be of greatest advantage. With each new thing we learn, we extend that portion of the world which we understand, with which we can adjust our relationship, through which we can assert our vitality. The more one believes that one can potentially control events around him, the more inspired one is to want to understand, to be able to vitalize that potential. Those things we are left in awe of (and ignorance or confusion about) are able to affect our lives independent of our wills; the car that breaks down, the virus that infects, the insurance that does not cover, the neurosis that is self-defeating. We are at the mercy of that which we do not understand as we can do nothing about our relationship to it, with the possible exception of isolating ourselves from these unknowns, cutting off opportunities. This is true whether the phenomena be mechanical, natural, political, administrative, emotional, or whatever, including the workings of the government and the activities of planners.

People are victims when bodies of government meet in closed sessions; when the legal code is incomprehensible; when planners make decisions about
neighborhoods which the residents do not understand or are even unaware of.
We cannot apply our magical algorithms to social planning, presenting the results as truths without comprehensible explanations. We ourselves are victims of our own theories when we apply them unreflexively, without full understanding of their significances.

We must not only seek to emancipate ourselves as planners from old theories, but we must also free our fellow victims. As I stated in Chapter Two, social scientists, on the model of physical science, seek to identify fixed laws about human behavior, laws in which humans are the objects of causal relationships. Planners use these laws to design instrumental strategies.

But such laws are not real laws. Human beings are the objects of laws only to the extent that they allow themselves to be. We make decisions about how we will respond whether we do so out of a belief in fate or a desire to change our situation. We are "condemned to be free". If we accept (internalize) a value in maximizing monetary wealth, then we will respond to monetary incentives, though we may still choose not to. If we fear bodily harm, we will respond to physical threat, but we may choose not to. To the extent that our responses are unreflected, we are for all intents and purposes unfree. But when our decisions, our responses are reflected, our choice is free.

The Romans used the threat of force to maintain control over their subjects. But many of the early Christians denied the fear of death or injury as a control over their actions. The Romans could lock them in prisons or feed them to the lions, but they could not make them serve the caesar.
Jürgen Habermas, in his critique of social theory, *Knowledge and Human Interests*, wrote:

"The systematic sciences of social action, that is economics, sociology, and political science, have the goal, as do the empirical-analytic sciences, of producing nomological knowledge. A critical social science, however, will not remain satisfied with this. It is concerned with going beyond this goal to determine when theoretical statements grasp invariant regularities of social action as such and when they express ideologically frozen relations of dependance that can in principle be transformed. To the extent that this is the case, the critique of ideology, as well, moreover, as psychoanalysis, take into account that information about law-like connections sets off a process of reflection in the consciousness of those whom the laws are about. Thus the level of unreflected consciousness, which is one of the initial conditions of such laws, can be transformed. Of course to this end a critically mediated knowledge of laws cannot through reflection alone render a law itself inoperative, but it can render it inapplicable." (p. 310)

Unreflected consciousness is the precondition of "laws" of human behavior. Any attempt to make the "laws" valid and applicable would be an attempt to promote unreflected (automaton) behavior. Our goal should be the opposite, to wrest control (meaning) from these "laws" and put it in the consciousness of individual actors. The appropriate use of knowledge gained from the social sciences is not to control people but to free people, to minimize determination in their lives.

If we ask whether people should be determined or free, then a meaningful question would be "Can people be determined?" The answer to this question at this point must be "No." The appearance of success in attempts at determination is limited. We have nothing approaching a comprehensive view enabling the successful guidance of human existence, regardless of the purpose for which we might desire to use such guidance. Furthermore, as demonstrated in the locus of control..."
research, attempts at determination have very undesirable consequences.

According to John Dewey, guidance models specified in terms of what people do are misstated. It is not what people do as much as that they do it themselves which is important in human experience.
CHAPTER FIVE: IMPLICATIONS FOR PLANNING

To see what the implications of the previously mentioned theories are for the situation confronted by planners, I have chosen a description of the situation from John Friedmann's *Retracking America*. He characterized the basic problem as the combination of an unresponsive guidance system and a non-participant society. The unresponsiveness stems from an increasingly centralized power and decision-making structure which makes decisions in locations far removed from their point of impact, based on generalized and filtered information.

"The other aspect of a progressively unresponsive guidance system is a population that is progressively less and less the master of its destiny, whose lives are subject to random impersonal forces that no longer seem to be intended or controlled by anyone. Despite the official rhetoric to the contrary, America is becoming a non-participant society. Its people have little understanding of their own environment. They are fed ready-made explanations by the media, but none of these seems to account for what is happening. Being so remote from control over events, the non-participant subject finally ceases even to care. He does not read the annual report of the business in which he works but concentrates instead on the small world of his job. His view of politics is cynical. He skims the news about his city, hurrying on to the sports and entertainment pages, and he is mesmerized by evening prime-time television. From time to time, some spectacles, such as the landing on the moon, are arranged for his diversion.

"The non-participant society is stirred up by its troubles, because they affect the lives of individuals within it: the war swallows its children, automation eliminates its jobs, the reeking air destroys its lungs, the poor make claims upon its pocketbooks. But no one really understands how all this comes about. The world seems alive with mysterious and evil forces. Conspiracy is suspected everywhere." (Friedmann, 1973, pp. 191-192)
It is not surprising that people give up caring when their own wills are felt to have little impact on their environment and circumstances, when the news serves only to remind one of how helpless and victimized we are. Security takes on an exaggerated value and the general level of anxiety becomes a national health issue. Conspiracy is easily suspected when the changes in the environment are dictated by people never met, whose decisionmaking is little heard about, let alone understood, to which there is little chance of input, let alone participation.

"The system we have engendered is approaching the breaking point. The combination of growing unresponsiveness and non-participation is tearing the society apart. The guidance system is becoming increasingly reactive, moved by the unexpected turbulence of events, frantically putting out fires without ever seriously approaching the structural sources of conflagration that seems to be gaining on what is left of the inherited order. These palliative measures are only partially effective, and their costs to the society are rising vertiginously. As a result, a small but growing segment of the population is beginning to withdraw its allegiance from the society."

(Friedmann, 1973, p. 192)

The decision system discussed in Chapter One was shown to have a tendency to address problems on a superficial level. What Friedmann is arguing is that while attacking symptoms, the underlying problems may continue to get worse, simply producing more symptoms. The societal guidance structure simply appears ineffectual. It may be blind to the causes, especially when the causes include the system itself. Through centralization, the decision making system becomes removed from real, everyday problems, seeing instead, generalized issues described by theoretical models. The segment of the population withdrawing its allegiance referred to by Friedmann were the student protesters. Today there is
a more general tendency caricatured by the statement, "I'm fed up! I won't take any more!" from the movie "Network" and taking form in the Howard Jarvis "tax rebellion".

"The basic structural problem of the American guidance system is its rising level of ignorance. Reason has become unhinged from action, leading knowledge to take refuge in the cloistered irrelevancies of esoteric language, and actions to lag farther and farther behind the events they seek desperately to control. To re-establish the essential linkage, society needs a heightened learning capacity. This will never be achieved by creating some sort of superbrain that is plugged into a nationwide monitoring system of social indicators and whose repository of quantitative models spews out appropriate answers. The realization of this current dream, so dear to technocrats, would only widen the existing breach between knowledge and action with truly tragic consequences for the society." (Friedmann, 1973, pp. 192-193)

The super-brain ideal mentioned by Friedmann is the logical conclusion of the attempts to deal with the shortcomings of our decision systems as described at the end of Chapter One. The information presented in Chapters Three and Four would recommend a different approach to dealing with the kinds of problems described by Friedmann.

Let us look at a specific example of a planning action which may be characterized as having been a failure, as having contributed to the kinds of problems mentioned by Friedmann. The case may seem extreme, but only because of the comprehensiveness of the impact it had on those whom it sought to help. The decision–making processes were not untypical.

A few years ago, planners in Washington, D.C., noticed from their tables that the per capita annual income of a particular Indian community in the Four Corners region of Arizona was one of the lowest in the country. This fact was
pointed out in a Congressional hearing as an example of extreme poverty. The Bureau of Indian Affairs was instructed to do something about it. A planner from the BIA went to the reservation and found a group of families living in mud huts huddled close together, scraping an existence off the land. The BIA felt that it would be in their best interest to provide them with jobs and use a newly available federal grant to build them a modern community. Coincidentally there was known to be coal on a nearby reservation which could be used to supply needed power for the Southern California area. Mineral rights to the coal were leased to the Peabody Mining Company, a planner laid out a modern rectilinear settlement, and modern wood-frame ranch-style houses were constructed.

The matter was quite straightforward. The Indians were poor, as the statistics showed. Jobs were created on the reservation within driving access. They lived in substandard housing. New housing was constructed at government expense. The Indian families were not carefully consulted, only told what would be done for them. The determination of what was to be done with the lives of the Indians was made on the basis of widely held and applied planning standards and models concerning poverty, employment, and housing.

From the Indians' point of view the matter was very different. The reason the statistics showed no income was that they were self-sufficient farmers, gathers, and grazers. Although they had little opportunity to make money, being able to raise only enough food for themselves, they didn't need much. Their mud huts were traditional houses developed over centuries for their particular situation. The thick walls moderated the extreme temperatures of night and day. The solid
walls also helped keep out scorpions, mice, and other pests. Should one be found, the hole through which it came could be easily located and patched. Their stoves burned wood gathered from the area. Their houses were huddled in a circle because they were a communal tribe, sharing in cooking and watching after each other's children.

The new homes were not well suited to the area. They were hot in the day and cold at night. The hollow walls made it nearly impossible to identify the means of entrance of scorpions and mice. The arrangement of houses and the distance between them made personal interaction inconvenient and watching other children impossible. They had no personal interest in coal, the land was sacred to them, not something to be exploited, but something they lived in harmony with. (For a story of how the Peabody Mining Company dug up a whole mountain which had been an integral part of the Hopi lore of their origin, see Black Mesa.)

However, the Indians had no choice but to work in the mines. The worst part of the new community was that it made them dependent on money. The stoves and heating ran on gas. That cost money. Wood fires would be too dangerous in the wooden houses. The houses, poorly constructed by outside laborers contracted by the government, could not be repaired with locally found material. That cost money. To get to work, they needed cars which cost money. While working in the mines, they could not cultivate food, nor could wives who had to spend more time watching children. Food had to be bought too. In Washington, the statistics showed the per capita annual income had risen noticeably.
What effect could all this have had on the Indians? Their lives were radically affected by planners in a distant city whom they never met. They had no say in planning the new community nor any part in constructing it. Their sacred soil was sold against their will; the BIA had appointed a council of known supporters to sign the lease. Control over their own destinies was reduced, both in the particular event of change and in their new circumstances. The mining interests now rule the area. A huge new power plant pollutes their air. Whose lives were enriched by these actions?

Aside from the obvious flaws in detail resulting from an inadequate understanding of the situation, the initial attitude of the planners, that they would make the Indians better off, made it inevitable that there would be a misfit between the plan and the people it was supposed to benefit. Though a conclusion of conspiracy seems obvious, the planners themselves may not have desired the actual outcomes. They too may have been the victims of their models and their methods. They had been "blinded by science", seeing only "an object of knowledge". How could these problems have been avoided?

A planner concerned about the subject-object issue would not have used theories and models to generate fixed, ready-to-apply solutions in this situation. The Indians were not given a conscious role in the decisions for changing their environment. In this type of usage, the theories reified the role of the Indians as total objects of their environment. By ignoring the subjectness of the Indians, applications of the theories on housing and employment served to deny its relevance to the quality of their lives. Changes in the environment, alone, were seen...
as being capable of improving the Indians' freedom to act as subjects through the creation of a situation which forced them to act in accordance with the assumptions of the theories about the quality of living was overlooked.

What approach should planners take? How might their methods be modified to avoid such problems? At the end of Chapter Three, I stated that, based on the evidence presented, it was undesirable, where possible, to enact strategies which encouraged independent, responsible actions by individuals through systems and procedures which accepted people as subjects, allowing them greater opportunity to exercise their own subjectness, in shaping their environments and acting within them.

What does it mean to accept people as subjects? Suppose I am a planner within the government bureaucratic structure. I have prepared a plan which I think is needed to deal with an important problem. However, within the organizational structure, there are many individuals whose cooperation is needed to realize the implementation of the plan. If I view these people as objects - potential obstacles - then my implementation strategy involves ways to get through them or around them. If it becomes apparent that they will not "fall into line", then I could circumvent their authority by appealing to higher authorities; I could coerce them by threatening to hold up their own projects; I could trick them by misrepresenting the plan; I could preempt their options, force them into a position where to choose otherwise would jeopardize their jobs; I could offer to pay them off; in short, do whatever it takes to get the plan implemented. In simple terms, I make a decision and I view other bureaucrats as objects to be manipulated in
carrying out that decision. The role of the planner is one who makes decisions
to be carried out (not necessarily by himself, but he devises the strategy for
doing so) - an elitist planner with authority derived from his special position.

On the other hand, I could view these people as subjects - people who
make their own decisions about their own actions. In this case I have one choice,
logically to persuade them to agree with my plan and willingly assist in the imple-
mentation. In this situation, a planner who cannot convince others that his ideas
are good is not a good planner. By failing to consider how the plan, and my actions,
will affect others, including my fellow workers, I have failed fully to consider the
environment in which the plan must function and its full implications. The
bureaucrat who feels himself treated as an object may well become entrenched and
stubborn, if only to demonstrate that he can make his own decisions, that he is
more important than the office furniture. Even old, embittered bureaucrats are
individuals with feelings and ideals.

Further, in this situation, planning is interactive. Should another suggest
modifications to my original proposal, I will consider them and, if they are good,
I will adopt them. If I am presented with reasons why the plan may face difficulties,
I will seek alternatives. In this stereotypical bureaucratic situation, the planner
must consider the reasons others might be reluctant to accept the plan, including
personal reasons. My immediate goal is that all parties agree on the plan, or
modified plan, such that others may carry out their own responsibilities willingly
and constructively in accordance with the plan. In this view, the planner is an
advisor and assistant, a resource person, one of the team, who helps generate
good ideas. Decision making is something everyone does for himself. John Friedmann described a related example.

The Department of Transportation had hired a major research corporation to make proposals for decentralizing their services. The papers were prepared by professors at several universities with little contact with the real situation and proved of little relevance.

"In this as in so many other situations, planning was carried out with no regard for the processes of goal clarification and policy formation. The research corporation and the professors conceived of their task exclusively in technical terms. They had no stake in the results of their studies. They failed to take their client on a learning trip. "What might have been done? Assuming that the original request for technical assistance was a serious one, an office might have been established in Washington for as long as necessary. Personal contacts might have been established with the originators of the request in the department, flesh-and-blood people with passions of their own. A review of the department's activities might have been jointly undertaken to see which might be decentralized and why. In problems such as these, the outside technical expert can be of greatest help by structuring the questions in a useful way and supplying concepts to help clarify the basic issues involved. The experts in this case might have served a catalytic role in organizing such a study, mediating among the different factions, proposing hypotheses, and summarizing the current state of theoretical knowledge. In doing all these things, they would have had to be in daily contact with the client staff. Personal relationships would gradually have developed. And in the end, the solution would have appeared as a discovery of the client himself.

"In mutual learning, the planner and client each learn from the other - the planner from the client's personal knowledge, the client from the planner's technical expertise. In this process, the knowledge of both undergoes a major change. A common image of the situation evolves through dialogue; a new understanding of the possibilities for change is discovered. And in accord with this new knowledge, the client will be predisposed to act." (Friedmann, 1973, 11. 184-185)
But these standards should not just apply to an office situation. What about those we ultimately serve, the populace? They do not want to be treated as numbers, to be manipulated according to the outcomes of planning models. In the case of the Indians, the government should have asked the Indians what changes they wanted. They could have provided experts to work with them in planning their future and money and supplies to help them make their own improvements. This would have made it unlikely that the planners would have become the unwitting accomplices of the Peabody Mining Company.

Let me describe another hypothetical example. Suppose I work for a public housing authority, perhaps as a housing project manager. Suppose I am confronting the problem of broken windows. The incremental planner might see his job as getting the windows fixed. Perhaps I might want to prevent more windows from being broken. I could make the windows less breakable, using plexiglass or protective screening. I could also try to make it less likely that attempts will be made to break them. In the latter case, I might employ a guard, an extreme solution, light up the surrounding areas at night as a deterrent, or post warnings of stiff punishments for persons caught breaking windows. This attitude involves mechanistic, closed models of the solutions. How can I, the decision maker, set up a system which will result in fewer broken windows? What actions on my part will cause others not to break these windows? How can I prevent them from doing so, from being able to do so?

But here the issue obviously does involve other human actors. The windows do not break by themselves. Someone, or some persons, is, or are, choosing to
break them. Why? Nor are the windows in question only mine. If nobody lived in the housing project, there would be no need to fix windows. They could be boarded up. Why shouldn't the tenants share in solving their problems?

The problem is a difference between what is, broken windows, and what I think should be, unbroken windows. Since someone is actively choosing to create broken windows, or at least to break windows, it would seem that he and I differ in our ideas of what should be. Ideally I should meet this person, and others like him, and negotiate. Perhaps he is trying to communicate something through his actions. Perhaps he has a need (such as a place to play or, as in the Winnipeg case, the opportunity to show that he can affect the system) which I could enable to be satisfied in some other way. Knowing that someone cares about them, as well as the windows, makes a difference to people. They are subjects, not objects. I must be willing to accept them, to confront them as human beings.

The tenants ostensibly share my ideal concerning the windows. The situation as it is represents a problem for them, too. In the common situation, they are dependent on the superintendent for getting the windows fixed. They themselves are helpless to rectify their problem. The situation can only be a source of frustration for them. Why shouldn't tenants be allowed to fix their own windows? Why not train them and provide the necessary tools? This solution would be cheaper than most others. The source of tenant frustration would be reduced. The tenants might even gain in confidence and a sense of self-sufficiency from being able to help themselves. They might take greater pride in their property when it is no longer seen as someone else's responsibility. The windows would become a personal matter, not a symbol of an impersonal system.
In this case we can see the operationalization of both the ideal of treating people as subjects and the ideal of increasing the ability of people to exercise their own control over situations. The procedure involved identifying the persons involved in the problem and working with them to bring about solutions.

What about problems of a larger scale? Friedmann saw his learning society solutions as taking place within a utopian society with a decentralized structure of learning cells. Decentralization may be a consequence of a shifted emphasis in problem solving just as centralization is a consequence of the present emphasis. But a particular social structure is not a necessary precondition of shifting the emphasis of planning from a mechanistic base to a humanistic base.

Planners in New York City face a major problem in the South Bronx. Arson has reached epidemic proportions. Good housing burns down every day. There is a trend which starts with landlords losing money on their investments in the housing market. They cease making repairs on their property. The tenants find their living conditions deteriorating. Some tenants move out, and the vacant apartments attract vagrants, thieves, and vandals. There are incidents of tenant and building abuse. Other tenants move out or desire to move out and soon the building becomes an object of arson. There are, of course, other factors contributing to the situation, and other details beyond my nutshell explanation.

The government finds itself helpless to solve the problem. It cannot adequately police the neighborhoods. It cannot prevent fires from destroying the buildings. It cannot afford to repair and maintain the buildings. Many have suggested
that the South Bronx be cleared and a new community started from scratch. Perhaps, like Boston's West End, high security high rises could be constructed for the upper-middle class. Still, New York faces a housing shortage for the lower income brackets.

Several community organizers have found another solution in sweat-equit...
supplies, and the constantly depressed prices paid to farmers by distributors, who ship their agricultural products to distant markets, farmers across the country are facing bankruptcy. Along with the decreased buying power of farmers, small town businesses are closing at rates not seen since the depression. The number of individual farms is decreasing at a rate of almost 200,000 per year. The average age of farmers is well above 50 and increasing every year. The average return on investment in farming is about a third that of other industries. Farmers' demands for parity are unheeded by planners in Washington.

Many farmers quit simply because they can make a much better living doing something else. Other farmers have offset their losses and paid each year's higher operating costs by increasing their mortgages with the increasing value of their land. Last year farmland prices stabilized and, with the banks' unwillingness to loan money against uncertain returns, more farmers faced the threat of bankruptcy. Some farmers sell their land to urban and foreign investors and continue as tenant farmers, or simply retire. Others sell parts of their land to developers and vacation home buyers to pay the costs on the rest. Corporate farming is increasing with its vast farms, low-paid labor, expensive irrigation and mechanization techniques, and vertical integration of distribution. However, corporate farms are consistently far less productive per acre or per unit of energy input than family farms, making conversion to such methods of farming questionable as a national policy.

The federal administration finds its hands tied. Fighting inflation is a major objective and food costs are a significant factor in the cost of living.
Increasing the supply of energy is another objective. Allowing the cost of natural gas to rise has been seen as a means to encourage the industry to increase the supply. Unfortunately, the cost of natural gas is the biggest single factor in agricultural costs as both equipment and fertilizers use it. Government subsidy programs are too small to be of real help and disproportionately favor large farms. Government-sponsored research to improve agricultural productivity has had a pronounced bias towards methods of greater value to large, chemically-based and mechanically-run operations than to the small farmer with an intimate contact with the soil. (This has more to do with lobbying and industry subsidies of research institutions than planning policy or theory.)

In Tennessee and Alabama, small truck farmers, many of them black, had been facing the same problems as farmers elsewhere. Many of their neighbors had sold their farms and moved to the cities. Lindsay Jones, a young female organizer, has been organizing the farmers to solve their own problems. Arrangements have been made with local churches to hold weekly "food fairs" in the church parking lots. Here the farmers could sell their produce directly to consumers at prices far less than those charged in large supermarkets and still make more than twice what the distributors were offering them. The consumers enjoyed fresher produce and the particular tips the farmers and their wives can offer on preparation and menus. The farmers get a chance to talk with one another and exchange ideas on farming. Everyone seems to enjoy the social atmosphere.

In both of these cases, the solutions were arrived at through discussions with the affected people and achieved through working with them at a personal
level. The problems were solved with only simple assistance and little or no public funds as compared with other, less successful programs. There was no need for major technical analyses or technological developments. More importantly, they involved people helping themselves, being the subjects of their circumstances rather than the objects.

Where problems are strictly technical, involving inanimate objects, as in designing a bridge or a sewage treatment program, the findings of this thesis may not have many implications. But even in these cases, where the bridge serves a community and must be looked at every day by nearby residents, and the sewage which is created by people's choices and the treatment of which will be run by public employees, there may be opportunities for confronting real people and working with them on their problems.

In planning situations of a more social nature, many questions are raised by this thesis and, hopefully, some implications for changed approaches may be realized. What is recommended is that where people are involved in an issue, they ought to be viewed as vital beings, needing to make their own choices, not objects in a mechanistic model. Further, when seeking to solve problems, an emphasis should be placed on enabling people affected to solve their own problems and to make other choices relevant to their own life's circumstances.

When discussing the idea of planners confronting real people, I have been led to wonder about some traditional planning constituencies such as "the public interest" and "generations yet unborn". The interests of these groups figure into the planner's "weighing of values". Two specific questions can be raised. Will
this weighing of values balance differently based on the information presented? Should this weighing of values take place under different circumstances? In cases like the preservation of redwoods in Northern California or virgin wilderness in Alaska, the answer to the first question would seem to be no. The problem has been and still is the conflict between the interests of two groups. For one group to be able to exercise the opportunities it desires, the other must be denied the opportunities it desires. I have not addressed this kind of conflict.

In answer to the second question, the recommendations point to the affirmative. The weighing of values should not be confined to the planner's mind or models, but take place in direct discussion with involved actors. If the planner feels that these people will not equitably consider the interests of others, he should seek to involve the indicated others in the discussions or, where that is not possible, to convince those involved of the significance of the interests of others. To overrule their decision making would mean that one has not been willing to accept them as subjects, as equals in the decision making process.

Problems with the ideas here proposed, which may necessitate limitations, qualifications, and further elaboration, can be identified by taking the situation to two obvious extremes; 1. the number of problems involving a single individual, and 2. the number of individuals involved with a single problem. In the first case, it must be noted that there are numerous decisions made in the urban environment every day which, in some way, involve each of us. Meaningful judgments in many of these cases require the intake of much information. If an individual were to be involved in each issue which these decisions involve, we
would have the frenetic situation described in Chapter Three where the individual is constantly being forced to study issues and make judgments. Sometimes it's just nice to know that things are being taken care of, can function without one's attention. In the second case, many decisions involve thousands of people. When the Federal Reserve regulates the money supply, it cannot ask everyone what it should do. Especially in its case, the element of mystery is essential to its impact.

In resolving these dilemmas, two issues should be considered: the significance of the impact on an individual's life and situation; and the distinction between knowing that one could affect things if one desired to and actually being forced to be involved in affecting things. Because of new procedures, in the case of the proposed extension of a subway into the town of Arlington, Massachusetts, individuals in the town had the opportunity to find out what was happening. When it became clear to the town government that the people felt that it was of great significance, they put it on the ballot. The state of Massachusetts has also adjusted the laws concerning the use of eminent domain. People now have more rights in an appeals process and must be paid a bonus beyond the market value of their property to offset the discomfort of being displaced. The scope of this paper does not allow for detailed discussions of these issues. There is certainly much which could be and which needs to be said. That must be left for later thinking and discussion.
"With a scientific civilization that man himself creates according to plan, a new peril has entered the world: the danger that man will develop himself only in external actions of altering the environment, and keep and deal with everything, himself and other human beings, at this object level of constructive action. This new self-alienation of man, which can rob him of his own and other's identity ... is the danger of the creator losing himself in his work, the constructor in his construction. Man may recoil from completely transcending himself toward self-produced objectivity, toward constructed being; yet he works incessantly at extending this process of self-objectification." (Helmuth Schelsky, quoted in Habermas, 1971, p. 349)

CONCLUSION

In the first chapter, I attempted to assess the adequacy of what I saw as the most characteristic model of planning. Finding only superficial criticisms and an indication that, if there were problems, all that was needed was more of the same approach or similar, I sought to assess the theory at a higher level. In the second chapter, I sought to assess the model upon which incrementalism was based. I found it to be based on a mechanistic model of reality which originated with the natural sciences. In application to the social sciences, a particular issue pertaining to the behavior of humans arose. I hypothesized that errors significant to planning goals would occur when the classic model was applied without reflection on the consequences of its application to social situations. The error might be said to be one of false analogy. A model, well suited to specific intentions and situations is incorrectly applied to a situation other than the one for which it was developed.

I sought to explore the implications of this problem both through empirical
evidence and within social and philosophical theory. I concluded that my hypothesis was correct. I proposed that as a social policy it was undesirable to treat people as objects and that, where possible, independent, responsible actions by individuals should be encouraged. The final chapter demonstrated some correct and some incorrect approaches to planning based on the findings of the previous chapters.

In the attempt to assess the problem defining process of planning, this thesis must be seen as only a small part. My desire was to carry the assessment to the highest level of philosophical assumptions which I was able to grasp, in an attempt to expose the biases and values imbedded in planning models and language. Lower level, more superficial discussions of specific issues in modeling, acting, and assessing problems, more commonly found in technical and theoretical books and articles, were passed over. This was not meant to indicate that there is not much of value remaining to be said on those levels. On the contrary, with the clarification of the issue presented in this thesis, much is left to be said particularly at the lower, more specifically application related levels. Similarly, even higher levels of philosophical discussion, pertaining to our descriptions of reality and selection of values, were also not attempted. In particular, the issue of atomistic logic mentioned in Chapter Two, of which mechanistic logic might be seen as a subset, was not pursued.

Possible adjustments in planning action and theory, in light of the material presented, were not exhaustively explored. Chapter Five presented some ideas on how planners might act in taking account of the problem, but the implications for most planning situations will probably require more thinking.
As for the argument itself and the hypothesis it supported, I hope it does not come as a surprise to anyone. It is a sad statement on society if it has to be reminded of the nature of human existence. It is truly, as Schelsky said, a case of "the constructor losing himself in his construction". Who can honestly say that he wants to be treated as an object, that he wants his subjectivity denied? What I have shown is that such decisions derive from the application of planning models based on the model of science.
The first act of logic is the drawing of a distinction. By doing so, one can identify a thing or concept (within the boundary of the distinction) from that which is outside the distinction. This process is carried out in iterative fashion to identify a multiplicity of objects. Distinctions can be made within other distinctions and outside of distinctions. A simple example can be seen in the distinctions indicated with a map. Massachusetts is distinguished within the United States, dividing the United States into Massachusetts and not Massachusetts. Within Massachusetts we may draw the distinction for Middlesex County. We may then draw a distinction for Suffolk County in that part of the distinction, Massachusetts, which has not been distinguished as Middlesex County. In this way, each of the counties in Massachusetts is defined and identified. For the identity of elements, it is not necessary that they be identified one distinction at a time. A foreigner coming to Massachusetts may be told that Massachusetts has 14 counties and shown a map with their borders. However, any set of distinctions may be constructed one at a time. For the purposes of what I intend to explain, it will at times be assumed that sets of distinctions are created in such sequential fashion. I propose that our logic operates in just such sequential fashion. In the example of the foreigner, he first divides his concept of Massachusetts into the concepts of state and counties. He will then learn their names and locations not simultaneously, but one at a time. Each new county may be viewed either as a distinction of the whole state or of that portion of the state not already distinguished as a county. The drawing of distinctions should be clearly understood as what follows is all elaborations on this process. G. Spencer Brown

I began by saying that logic must begin with the drawing of a distinction. Before any distinctions exist, there are no concepts; no relationships, no qualities, no objects. For a concept to have meaning, it must be a distinction. Concepts are created along with their opposites. The concept, existence, does not have meaning unless non-existence has meaning. Its meaning is its relationship to (distinction from) its opposite (complement). This is easily seen with qualities like hot and cold, light and dark, hard and soft, but applies to all concepts, table and not table, MIT and not MIT, sight and sightless, good and not good, etc. If everything is pooka, then to say that something is pooka has no meaning, does not make any distinction. To say that something is neither red nor not red is to say that redness has no meaning in that context.

The universe which is the subject of discourse is made up of many distinctions. As I said earlier, any set of distinctions can be created sequentially, one at a time. Thus we may view this world of discourse as a hierarchy or tree. The base of the tree or the top of the hierarchy is the undifferentiated state. One distinction is made creating two concepts. Then each concept (or only one of the concepts) is again divided. The process may be graphically represented as at the right. The subdividing of spaces is a closer analogy, but the

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tree is simpler to portray, graphically. When a distinction is drawn, the two concepts created need not be given separate names. We simply divide the previous concept into 'a' and 'not a.' We can show the dividing of a concept into three 'subconcepts' as in figure ii. There is the danger of dividing x into a and b by such a process and overlooking that x also includes a 'not a or b'. Goedel's theorem demonstrates that if a and b are not created by the same distinction, there must be a 'not a or b' or a 'both a and b' or both. The question is whether or not a and b are 'exhaustive' of x. It is a common mistake of deductive logic to say that if something is x and not a, then it is b, where the procedure for exhaustiveness has not been met.

I have presented the creating of concepts as a hierarchy. The same hierarchy need not be followed in the reduction of concepts or distinctions. A distinction breaks a concept into two concepts. These two concepts, when brought together, eliminate the distinction and leave the original concept. However, concepts may also be brought together with concepts formed by other distinctions. This process creates a new concept (subsuming the two) which had not before existed. In figure iii, at point a there is one concept, at point d there are eight, while at point f

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figure ii

figure iii
there are five (the right hand concepts of each pair at d have been collected under one concept at f, while the left hand concepts remain).

The process I have just described is the process of analysis, breaking concepts down into parts and regrouping them under new concepts. Thus, we may break the Boston skyline into individual buildings and regroup them into tall and short, old and new, steeples, apartments, and others, or whatever.

A paradigm is a set of instructions for how distinctions are to be drawn and under which concepts they are to be regrouped. In Kuhn's classic example, air was divided into phlogiston and de-phlogisticated air under the old paradigm. The new paradigm divided air into oxygen and other elements (nitrogen, carbon dioxide, ...). The regroupings may be regrouped around the concepts of possible and impossible, causal and independent, right and wrong, or any set of concepts (or sets of concepts).

In the formal use of the dialectic, you must bring together the concepts x and not x. In other words, you must combine the concept in question with whatever concept is immediately outside the distinction which holds that concept our attention is focused on. In the simple hierarchical model, we can see that this would yield the previous concept, and that should this process be carried out repeatedly it would bring us eventually to perception without concepts (immediate or transcendental). If you just bring concepts together with other concepts seemingly opposed to them, you will end up with a confusing, inconsistent hodgepodge of concepts, but no clearer vision, free of the predispositions of your conceptual framework.
In atomistic logic, concepts are broken down into universals ("atoms") such that any reality confronted may be seen as some combination of these universals. The most obvious example of this logic is found in sub-atomic physics where the universe is thought to be composed of various combinations of six quarks. Likewise, chemistry has its elements. In a language, all ideas are expressed by combinations of the words in its vocabulary. In the language syntax discussion at the beginning of Chapter Two, it was implied that all relevant situations can be modeled by the specified vocabulary (selection of variable) and syntax, rules governing their possible arrangements (relationships).
APPENDIX TWO: POSITIVISM

Philosophical Positivism was developed in the 19th century by Auguste Comte (the father of modern sociology) to counter Hegelianism. The Hegelian dialectical approach was labelled "negativism" because of its critical approach, questioning all ideas and values, and thus threatening the existing social order. The dialectic was a philosophy of change (some said chaos) rather than stability. Positivism was informed by a need for stability. Its effect was to perpetuate the existing social order and further entrench it. It rejected notions which could not be empirically demonstrated (including all imagined human relationships not found in existing social orders) and sought simply to improve harmony and order. We may recognize here the pragmatic approach of the incremental planner, solving "problems" (defined within the existing context) as they appear, improving the efficiency of the system. Progress was accepted as a given. Man was not seen as being able to change it, only to facilitate it. (Revolutionaries who threatened "progress" were best suppressed.) Social Darwinism was an early social theory using the Positivist approach. Values were seen as relative or even meaningless. Plans were not good or bad, only more efficient or less efficient. Sociology was established to identify (and thus reify) existing social relationships.

With the unprecedented success of modern science in the late 19th century, and the new fascination with science and technology influencing all areas of thought, Positivism gained widespread acceptance. Rudolph Carnap and a group of scientists, called the Vienna Circle, brought the philosophy of Positivism more care-
fully in line with acceptable scientific practice, dumping some of its more dogmatic social applications. Their philosophy, Logical Positivism (later called Logical Empiricism) has had a significant effect on modern philosophical thought.

The original Positivism asserted simply that only the given was real. Carnap refined this position, allowing for future discovery, but rejecting as nonsense any questions or statements which could not be confirmed or disconfirmed by appealing to sensory experience. "What gives theoretical meaning to a proposition is not the attendant images and thoughts, but the possibility of deducing from it perceptive propositions, in other words, the possibility of verification." (Carnap, 1935, ch.1) The philosophy of ethics was considered a useless exercise.

"This is not an investigation of facts, but pretended investigation of what is good and what is evil, what is right to do and what is wrong to do.... From the statement 'killing is evil' we cannot deduce any proposition about future experiences. Thus this statement is not verifiable and has no theoretical sense, and the same thing is true of all other value statements." (Carnap, in White, pp.216-217)

Questions of reality and the rest of metaphysics were also considered meaningless.

"But this question has no sense, because the reality of anything is nothing else than the possibility of its being placed in a certain system, in this case, in the space-time system of the physical world, and such a question has sense only if it concerns elements or parts, not if it concerns the system itself." (Carnap, in White, p.215)

Logical Positivists, as the earlier Empiricists, accepted two kinds of proof: synthetic, those known by experience, and analytic, shown by logic to be tautological – A and B are expressions of the same thing (as in mathematical
proofs). In this way, things which, themselves, cannot be experienced can be analytically deduced from synthetic events.

Like any system, it is subject to Goedel's theorem that any system must ultimately rest on postulates not provable within that system. Since it intends to guide human action, it is, itself, that which it denies, metaphysical. How can you empirically demonstrate the validity of the statement that only that which can be empirically demonstrated is valid? Only in a dialectical relationship can we question our mode of questioning.

Do we experience causality? When seeing a falling rock, will Carnap choose an Aristotelean or Galilean explanation? Why? This issue of verification is not simple or value free. Carnap himself admits that you can never be 100% certain, that you can only verify a hypothesis by negative testing, that you might still find a test which disproves your hypothesis. So it is with synthetic proofs. Theories and the reality they seek to explain are not one in the same. Theories are only theories and their validity depends on what we want them to be valid for. Many individuals will agree to a given explanation of a given event. Thus we say it has objective validity. But what we are really saying is that we share certain intentions relative to the observed event. My point is that there are no value free, universally objective facts. Facts are arrived at in the same way in which we must arrive at morals. But this need not lead to chaos. Theoretical validity has always been a matter of agreement.
APPENDIX THREE: UTILITARIANISM

In the 18th and 19th centuries the Utilitarians, a group of British philosophers and social theorists, borrowed the practical approach of the early English Empiricists, the interest in social welfare of the utopians and the language of the emerging field of economics to create systems of ethics based on social welfare functions. From their empirical background they opposed unearthly and otherworldly morality. In the utopian tradition they shunned vague generalities and insisted on getting down to the specific and concrete. Their given was that every person pursues happiness (pleasure). One might say that senuous enjoyment was an empirical experience which the Utilitarians took to indicate goodness. Thus pleasure and the greatest possible aggregate of pleasure replaced earlier religious notions of salvation as the goal of man. This marked an important transition from man being subservient to moral laws to moral laws being subordinated to human achievement. "It taught that institutions are made for man and not man for institutions." (Dewey, 1948, p.180)

But Utilitarianism was teleological, happiness was an end to be pursued (very much like the end of reaping rewards in heaven, only attainable here). Specific activities and interests were not worthwhile in themselves or as constituents of happiness but only as means to getting pleasures, sensuous enjoyment.

"Since pleasure was an outcome, a result valuable on its own account independently of the active processes that achieve it, happiness was a thing to be possessed and held onto. The acquisitive instincts of man were exaggerated at the expense of the creative.... Labor was
an evil to be minimized. Security in possession was the chief thing practically. Material comfort and ease were magnified in contrast with the pains and risks of experimental creation." (Dewey, 1948, p.181)

In connection with the desire for wealth embodied in capitalism, Utilitarianism became an apology for social harm and injustice.

"Utilitarianism gave intellectual confirmation to all those tendencies which make 'business' not a means of social service and an opportunity for personal growth in creative power but a way of accumulating the means of private enjoyment." (Dewey, 1948, p.183)

Cost-benefit analysis borrows its method from the Utilitarians.

Dewey, who is most known for his ideas on education, felt that the Utilitarian attitude was especially detrimental in the area of education.

"Education has been traditionally thought of as preparation: as learning, acquiring certain things because they will later be useful. The end is remote and education is getting ready, is a preliminary to something more important to happen later on. Childhood is only a preparation for adult life, and adult life for another. Always the future, not the present, has been the significant thing in education. Acquisition of knowledge and skill for future use and enjoyment: formation of habits required later in life in business, good citizenship and pursuit of science." (Dewey, 1948, pp.183-184)

Good citizenship was not viewed as a positive quality but as the opposite of rebelliousness and therefore was seen simply as obedience. The skills needed for being a good citizen were seen as the skills needed for supporting oneself economically in society, skills to make one's labor marketable in industrial capitalism. The child was viewed as incomplete and immature. Rather than being encouraged to develop his intrinsic potentialities as an autonomous being, the child learned
to subordinate his being to the goal of becoming an "adult". (This sort of lack of support and acceptance of the young child was viewed by Karen Horney as being the origin of neurosis. See *Neurosis and Human Growth*.)
BIBLIOGRAPHY


