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EXECUTIVE

76-6-15

76-6-13

August 20, 1970

MEMORANDUM FOR

ANDY ROUSE

We have been discussing for some time whether or not we need some kind of a forward planning unit in the Domestic Council staff. As you know, the National Goals Research Staff has been doing this sort of work but they have hardly related at all to the general policy and program development that's been done by the Domestic Council staff.

We are still wrestling with the question of whether or not to set up such a unit, and would very much appreciate your views on this subject. Particularly, if you believe that such a unit should be established, we would like to have your guidance on how the work of this unit should be managed and how it could be made to relate directly to the work being conducted by the other staff.

Is it possible that you could send such a paper to me within a week or so?

Thank you very much.

KEN COLE

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sent

8/25/1970

EXECUTIVE

FG6-13

Dear Dr. Bauer:

Your direction of the work of the National Goals Research Staff has been of great help to me and my associates in our efforts to lay the groundwork for a more sophisticated system of long-range national planning and anticipatory decision-making. I particularly value your emphasis on the need to take prior account of the consequences of both public and private actions, and the way in which you examined a wide range of those consequences.

Your concept of "balanced growth" is, I believe, sound and persuasive, and your elaboration of it will stand as a valuable contribution not only to the public debates of the decade ahead, but also to our own processes of decision-making here in the government. You have my appreciation for the time and talent you gave, and I hope that we can call on you for other services in the future.

With every good wish,

Sincerely,

Richard Nixon

Dr. Raymond A. Bauer
16 Highland Street
Cambridge, Massachusetts 02138

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THE WHITE HOUSE
WASHINGTON

TO: *Len Barment*

FROM: KEN COLE

FYI _____

COMMENT _____

This is approved
by E - Pls have
typed for TI's sig
TI

THE WHITE HOUSE
WASHINGTON

Date: *Aug 20*

TO: *Jim Keogh*

FROM: John Campbell

~~For your information.~~

Comments:

For your approval.

JK

THE WHITE HOUSE
WASHINGTON

DPM
Noted
10/14/70

Dr. Macnihan,

You may find
this piece to be of some interest.

Jack Dowd

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MEMORANDUM

EXECUTIVE

FG 6-13

WE

(2)

THE WHITE HOUSE

WASHINGTON

August 27, 1970

FOR : NGR STAFF

FROM : John J. Ford
X

SUBJECT: Some Thoughts about Governance in the Seventies

I. Introduction

The first faltering year of NGRS's operation spawned some glimpses of national affairs which could have more long-range implications than the publication of its report. The purpose of this memorandum is to convey some of the insights I've gained as token recompense for the opportunity afforded me to serve on the staff. These are products of past experiences in the field of foreign affairs and of the knowledge gleaned through contacts with and around the White House staff about the practical dimension of domestic affairs.

What I perceive to be common to what has been experienced in the foreign and domestic domains is the rate, direction, and complexity and immensity of changes occurring therein. Just during the period of my government service communist governments were established in China and Cuba, the Soviet Union became a nuclear power, the computer evolved from an idea to become a household word, and transportation progressed from prop-driven planes to Apollo XII along with the occurrence in a kaleidoscopic pattern of other comparable transformations.

Nor has change been confined to the international and technological domains. It has produced a litany of challenges to the stability of social institutions during the past two decades that is as long and perhaps more momentous than the list of interrelated international and technological changes. Such affronts to established ways--whether from drugs and despair, polarization and alienation, anxiety and anomie, revolt and apathy--now rest heavily on the minds and hearts of concerned citizenry.

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The tumultuous and ever accelerating process of change seems to be threatening to ~~over~~whelm governmental machinery attuned to more slowly-paced times. We seem compelled to animate and perpetuate change almost blindly and thus to move toward a future whose shape or quality we do not comprehend, whose surprises we have not succeeded in reducing to a rational frame of ideas, whose complexities we are not in the least sure of being able to control.

Meanwhile, responses are made on a day-to-day basis to whatever crisis screams loudest for attention. But adaptation of the governance process so as to promote success for the American venture requires more than crisis management techniques regardless of their apparent short-term effectiveness. There is growing recognition that what is needed is a series of systematically-related social inventions to amplify current capabilities for the conscious and purposeful direction of the American experiment

For prompting such inventions a conceptual framework would be useful for thinking about adaptation in social systems, i.e., about what kind of inventions are needed and about how they might be inter-related systematically. An historical and comparative analysis of the literature relative to the governing process offers such a concept. It revealed a remarkable degree of correlation between the meaning ascribed to the term "govern" in different eras and by various societies despite the plethora of political theories evolved in those times and places about who should govern whom and about how it should be done. Anyone thinking about governance in the Seventies would do well to begin as I do here with a look at the fundamental connotation of the word "govern."

The English word "govern" is derived from the Latin gubernare which in turn is taken from the Greek word kybernan which literally means to steer, i.e., to exercise power or authority to guide, control, or direct governed objects. Its antonym, "anarchy," connotes the idea of a broken rudder, hence, the absence or suspension of the steering function. The history of Western political theory is a record of views in successive stages of social evolution about how to steer politics or, conversely, how to prevent chaos and disorganization, that is, anarchy. That so many theories of steersmanship have been enunciated is indicative of the social relativism involved in their formulation. Political theory has applied to politics in different periods the relevant philosophical and scientific tools available in

those times. Political theory also reflects upon morals, economics, government, religion, and law--whatever there may be in the historical and institutional situation that sets a problem to be solved. But, the most important features of social relativism in political theory are the values of which problems are the product: Problems exist when views of what conditions are do not square with value-based views of what should be.

More often than not the practices of political institutions during each of the many stages of socio-political development were out of phase with the political theories formulated in response to the recognized problems of the respective periods. The political theories, in turn, often lagged as much as a century behind the philosophical, scientific, economic and/or other insights from which the political theorists synthesized their formulations. Standing on the shoulders of philosophers, scientists, moralists and others, political theorists formulated theories which often found expression in political practice only after many years and, often, in social settings other than those in which the theories originated.

Despite the time-lags and movements of political theories they often found expression eventually and somewhere in alterations of governing institutions. From the beginnings of political theory in the reflection of Greek thinkers upon the institutions of the city-state down to the present, the succession of theories and their eventual impacts on the structures and functions of governing systems have provided adaptive procedures for steering polities so as to maintain their dynamic balance in the presence of changing situations. Though governments take different forms they share their common task: the maintenance of order and utility in the governed system in the face of disorder and disutility-producing disturbances to the systems' dynamic equilibria. Likewise, the prognoses are the same for governments which fail to perceive or to adapt to situational changes. Inadequate responses of the steersman to the "Signs of the Times," result in anarchy, anomie, alienation, separation, anxiety ... disorganization. Plato's analogy between the governor and the "steersman" seems to be a time-tested concept which has appealed to political theorists and to poets as well during the progression of many different forms governments have taken during the past 2,500 years.

The changes occurring kaleidoscopically in and around the America of today defy the approaches prescribed by traditional political theory

to their identification for and to the formulation of adaptive strategies by the steersman of our Ship of State. Meanwhile, isolated solutions continue to be sought to closely partitioned problems which could be exacerbated rather than resolved by approaches based on the political theory of a more slowly paced era. It seems clear that what is needed is a conceptual framework for thinking about system responses to system-wide patterns of change.

This memorandum does not pretend to satisfy the imperative need for an adequate and coherent theory of modern American political theory. It merely attempts to suggest some politically relevant ideas taken quite appropriately from contemporary scientific attempts under the rubric of cybernetics to formally describe the process of steering. Cybernetics was elected because it offers a sound basis for the configuration and operation of that national information and management system upon which the successful operation of the Institutional Presidency depends in this period of rapidly accelerating and complex change. Rather than offering a comprehensive treatment of cybernetics in and for Government, only a few key concepts are elaborated with emphasis on the role of pattern recognition in perception of the inter-related system of problems that inhere in our national situation.

II. Patterns of change and complexity

As in every epoch of its existence, mankind today finds itself in a particular "situation." And as always this situation is created and fueled by those who live amid the myriad events that comprise it-- events that now are in the process of tumultuous and ever accelerating change, events that now increasingly and even violently clash with one another. Our situation can be perpetuated almost blindly, and moved toward a future whose shape or quality is not comprehended, whose surprises are not reduced to a rational frame of ideas, whose complexities may be uncontrollable. On the other hand, the situation if correctly perceived can serve as a stimulus to conscious, goal-directed governance. Progress toward the formulation of such perceptions is, therefore, an urgent task.

There are a few basic perceptions that possess both wide currency and increasing persuasiveness, by means of which the nature of this situation may be apprehended. Due to one such perception there is growing recognition that the forces holding us in their grip arise from the very source

of our power and achievement, i.e., an extraordinary accumulation of technological capital and the all-pervasive analytic or positivistic methodologies by which our minds and sensibilities have been shaped thereby enabling the creation of the current situation.

But this achievement has failed to foster the more "balanced" development to which the President has so often alluded. It has failed to provide an ethos, a morality, ideals, institutions, a vision of man and of mankind and a politics which are consonant with the way of life that has evolved under the impetus of technological and analytic accomplishments. Worse, it has failed to provide a global view to aid in the conceptualization of the ethos, morality, ideals, institutions, and policies requisite for the America of today and tomorrow--this, despite the fact that the dynamics of technology and of the positivistic outlook are global in their impacts, their consequences, their endless profusion and, more importantly, in the promises they proclaim and imply.

This failure has created a number of comprehensive problems that will not yield to the kind of analytic solutions so readily generated during the 400-year old Western intellectual tradition. The experience of the past 20 or 30 years has shown that contemporary issues and their consequences over time, defy methods used so successfully in the past to bend nature to the human will.

Such apparent resistance might be attributable to many things. For example, there is the size of the problems to be grappled with. Almost all of them are national (or global) in scope, while available socio-political arrangements are equipped for dealing only with issues falling inside their strictly and, in many cases, long established jurisdictions. Resistance could be due also to the heightened and often obscure interactivity among phenomena that defies traditional problem-solving approaches based on the identification of rather clear and direct lines of causality. Rapid rates of change, especially, in the technological sector may be a factor because our institutions, outlooks and minds are geared by long-time habit to beliefs in slow unfolding and permanence--beliefs which have sustained certain relatively stable concepts of policy, of social order, and of intellectual orderliness. Whatever it is due to, the conjuncture of contemporary events is to all evidence nation-wide, complex, dynamic, and dangerous.

Moreover, this is a new situation. Long committed to stability and continuity social evolution has been steered in the past toward the known and in avoiding that which, for being unknown, was also uncertain and, therefore, frightening.

Because of the dissonances that inhere in our situation, the current attitudes toward life and issues are tending to become rigidly polarized and hesitant. On the one hand, refuge is taken in the belief that inertia is going to help preserve all the attributes of what is called and accepted as "the American Way of Life." On the other hand, escape is sought in iconoclastic or utopian visions of a new human order.

Although these contradictory attitudes toward uncertainty are old, the uncertainty experienced today is new--both in its dimensions and in its extraordinarily complex dynamics and structure. From this fundamental mismatch of "problems," and the mental and emotional attitudes, which we continue to feel might give birth to "solutions," the assumption follows that the current notion of problem is insufficient for what the contemporary situation proposes both to the intellect and to the conscience. At the same time notions of solution are equally inadequate for the definition of novel ways to cope with predicaments--namely, of organizing visions at a higher level where new approaches and attitudes might begin to acquire a degree of immediate relevance.

The above assumption must be turned into a positive statement if the Steersman of our Ship of State is to be served. This can be done with recognition and investigation of the all-pervasive meta-problem built into the contemporary situation. Success in an attempt of this nature would open the way for certain new attitudes that eventually might become reflected, concretely and operationally, at those levels of decisionmaking where policy is formulated.

There is still time for the creative thinking prerequisite to the invention of comprehensive problem recognition procedures. But, for the making of such an effort, the factor of time is of the utmost importance. Rapid change, a crucial aspect of technological momentum, is accompanied by a parallel phenomenon: the similarly rapid and massive crystallization of corrective actions devised and applied to single problems or to the discrete components of the situation. If the surmise

is correct that such partial cures are either insufficient or irrelevant, it follows that such ~~action~~ may exacerbate the situation as a whole and add certain irreversible ~~features~~ to it. Time, therefore, is of the essence in consideration of any undertaking which seeks a new approach to the dilemma of our age.

This point is well illustrated by some recent studies concerning the time periods allowable for making effective decisions. Such studies indicate that any corrective or beneficent effects of present action are dependent on varying time spans, and that in many instances these time spans have narrowed down to a critical minimum. A number of types of crisis have been singled out whose flash-points could now be seen as clustered well within the decade of the 1970's. Thus, the time margins that apply to general problem classes such as large-scale destruction or change, widespread tensions, continuous and growing distress, tension-producing responsive change, etc., are increasingly conceived as probably falling within the 1971-1978 period.

If something is to be done about the situation in which the Nation finds itself, it needs to be done now. But recognition of the situation must precede any such action.

III. Recognition of the "Signs of the Times"

It is in the nature of the English language and, hence, of our manner of perceiving reality, to see and call the dissonant elements in a situation, "problems." And problems have "solutions." Because of this peculiarity of our perception, difficulties are viewed as things that are clearly defined and discrete. It also leads to the belief that for the solution of a problem it is sufficient to observe and manipulate it in its own terms by applying an external problem-solving technique to it. There are certain problems (mostly in the field of technology and engineering) that can be dealt with in this way but it is quite evident that such problems are no longer the most important ones to be dealt with.

Another unfortunate consequence of orthodox problem-solving is the misapplication of effort and energy. The fragmentation of reality into closed and well-bounded problems creates a new problem whose solution is clearly beyond the scope of the concepts customarily employed. It is the generalized meta-system of problems that inheres in our situation which needs recognition and to which NGRS activities have been addressed beyond its recently published report.

The situation recognition problem is very difficult because of the fragmentation of reality caused by conceptual and linguistic hang-ups. But it is still necessary to talk about the situation and to communicate ideas concerning it. Since there is no new language for doing this, it can be approached only by conveying the notion of the meta-system of problems in familiar terms. The situation can be broken down into its major components which can be listed for purposes of their tentative identification and of creating a referential base. The following listing, offered as one general statement of the most commonly recognized crucial problems of this sort, is a first step toward the recognition of the situation.

AN ILLUSTRATIVE LIST OF CRUCIAL PROBLEMS

1. Population growth with consequent escalation of social, economic, and other problems.
2. Uncontrolled urban spread.
3. Expanding mechanization, cybernation, and bureaucratization of human activity.
4. Insufficient and irrationally organized medical care.
5. Hardening discrimination against minorities.
6. Affluence and its unknown consequences.
7. Anachronistic and irrelevant education.
8. Generalized environmental deterioration and pollution.
9. Generalized lack of agreed-on alternatives to present trends.
10. Widespread failure to stimulate man's creative capacity to confront the future.
11. Continuing deterioration of inner-cities or slums.
12. Growing irrelevance of traditional values and continuing failure to evolve new value systems.

13. Inadequate shelter and transportation.
14. Accelerating wastage and exhaustion of natural resources.
15. Growing alienation of youth.
16. Major disturbances of the world's physical ecology.
17. Limited understanding of what is "feasible" in the way of corrective measures.
18. Ideological fragmentation and semantic barriers to communication between individuals and groups.
19. Increasing asocial and anti-social behavior and consequent rise in criminality.
20. Spreading "discontent" throughout most classes of society.
21. Growing use of distorted information to influence and manipulate people.
22. Inadequate participation of people at large in public decisions.
23. Growing tendency to be satisfied with technological solutions for every kind of problem.
24. Irrational practices in resource investment.
25. Insufficient understanding of Crucial Problems, of their nature, their interactions and of the future consequences both they and current solutions to them are generating.*

It should be evident that these Crucial Problems are meant merely to serve as general labels under each of which entire trees or clusters of issues that appear analogous, can be classified. Further, neither their rate of occurrence nor their intensity is uniform throughout the Nation. Therefore, the causality structure that underlies such a listing

*These Crucial Problems are not listed or grouped in any particular order; nor is the list to be regarded as complete.

is obviously of extreme complexity and actually impossible fully to ascertain through mere observation for, even on direct empirical evidence, it is clear that the true list must be many times larger than this one.

However, even from this limited listing, it is obvious that these large problem-areas are system-wide, interdependent, interactive, and intersensitive; that they transcend regional boundaries; and that they are seemingly immune to linear or sequential resolution.

This, in turn, suggests that when the problem-trees have grown to nation-wide proportions their branches intertwine--or, using the image of clusters, it can be said that the clusters overlap. Such areas of overlap then create new problem-areas whose description (hence an understanding of them) escapes the boundaries of the original listing. Therefore, the systemic character of the problem-areas must be clarified then restated so as to reveal their most critical cooperative interactions.

This dynamic and interactive growth of the meta-system of problems can be graphically portrayed in a number of ways. Regardless of which approach is used it becomes obvious that attempts at understanding the situation in terms of isolated problems have gone almost as far as they can. If this be true, then greater effort along the same lines will help but little toward recognition of the phenomena which make up the issues, and of the living, changing, dynamic texture of the interconnections that actually create a "situation."

In order to achieve higher orders of understanding, it is necessary to create one or more situational models which might reveal--with reference to, but almost independently from, the problem-clusters:

1. The identity of the most critical and sensitive components of the situation;
2. The main or major interactions that exist among the various variables contained in the situation;
3. The behavior of the main variables in relation to changes within the situation.

4. The time-dependent ordering of the chief possible outcomes and of their present consequences for action;

5. The presently invisible critical connections that operate systemically within the present situation and that situation's future configuration;

6. The positive and negative syergies that must exist among various alternative consequences and options.

Factors such as the above can be explored because, by means of modelling the situation correctly, it becomes feasible (1) to penetrate the areas of interdependence among problems and clusters of problems; (2) to manipulate the models artificially--so as to observe the behavior of the situation's components under differently structured configurations. After the modelling work has been completed it should be possible to elaborate suggestions for curative or corrective action that might prove helpful in developing policies. However, to be taken, all these steps require that a ground or value-base be established upon which the entire modelling effort can be made to rest.

The primary aim of modelling is to give the subject a shape, a structure, a configuration that is determined by an objective which, itself, is external to the subject. Hence the clarifications of insights that might be obtained from a successful modelling effort are never reached in terms of the subject (i.e., a problem or a situation) but in terms of the external objective to satisfy which the modelling was undertaken in the first place. Such an objective always entails a value, and the setting of it must therefore create the particular value-base that gives meaning and direction to the whole endeavor.

A value-base explicitly stipulates certain assumptions about what is "good" and what is "bad."* This is not the case nowadays

*This manner of proceeding is actually implicit whenever we say that something represents a "problem." When we call occurrences such as hunger, or over-population, or lack of education, "problems" we are in fact defining them in this way because according to our value system they represent a state that is bad in comparison to an alternative possible state--which we call "solution"--that we accept as being good.

when the meta-system of problems of a whole nation-wide situation must be dealt with. In so extended and complex a problem area the value premises reveal themselves as being so confused that it is imperative that a value-base be defined that would govern modelling work related to situation recognition.

A value-base must be selected with certain fundamental criteria in mind. First, it must qualify as an aid to concept generation. Secondly, it must be consonant with the initial perceptions and beliefs triggering the modelling effort. Thirdly, it must support and, in some sense justify, the outcomes that are expected from the effort. The ground of presuppositions presented at the beginning of this memo, backed by considerable empirical evidence, is the belief that there are strong interactions among the events which create the contemporary situation and that, while it is impossible fully to isolate the former, it should be feasible to identify, through modelling, some crucial aspects of their temporal and spatial interconnections. Moreover, such identifications might also permit the anticipation of a number of dissonances which may not exist at present, but whose developing conjuncture could well be forming those new issues and problems which will define the Nation's future.

On this ground of perceived fact and belief it may be possible to evolve a value-base for situation-recognition work, as a concept-generating tool which will satisfy the first criterion stated above. This could be done with reference to the nature of the comprehensive system of problems itself, that is, with reference to the most general attributes found in those component elements of our situation listed above as Crucial Problems. Reviewing these (even superficially) it is obvious that all of them are problems in relation to something else--either other problem-clusters or a particular state of the system in terms of which we look at them, or values we take for granted because they are embedded in our current culture. Thus, for example, uncontrolled population growth is a problem when viewed in relation to a particular state of the environment that we are now experiencing. Such examples can be multiplied, and in every instance the problematic element derives from an imbalance that affects the relationships existing among situational components. The President's emphasis on "balanced growth" suggests, at least, an intuitive grasp of the above principle.

Because imbalance is a state which also defines the pathology or ills of an "ecological" system, it has been suggested that our

situation, seen in its entirety, may be represented as an ecological problem. Ecology, as everyone now knows, is the study of the equilibria and the dynamics of "populations" of living entities within given environments. The notion can be extended and generalized to comprise the equilibria and the dynamics of all entities, for every dimension of contemporary experience is a definable population of facts and concepts: biological, physiological, physical, psychological, ethical, religious, technological, economic, political, national, international, attitudinal, intellectual, institutional...; the full list is no doubt finite but very long indeed. It covers every thing and event among which relations of mutual determination, complementarity or competitiveness can be established.

Hence, if we extend, as is increasingly being done nowadays, the definition of ecology to comprise all the dimensions of occurrence in our world-wide environments it becomes possible to say that we are confronted with a comprehensive system of problems which is ecosystemic in character. The normative statement that describes the value-content of any ecosystem is "ecological balance." Consequently, the idea of ecological balance is a candidate for the underlying value-base of the NGRS or other situation-recognition approaches; for, in the terms dictated by our situation, the "good" is self-evidently and most generally capable of being defined as the re-establishment of that many-dimensional dynamic balance that seems to have been lost in the modern world.

Such a value-base might make it possible to develop models and attain insights that have global relevance, and should further open the way for the integration of the models into one primary synthesis capable of eliciting from the "Steersman" ideas that, subsequently, can be made actionable in terms of concrete policies, of new structures, and new institutions. Implementation of this approach to policy formulation would be a step forward in relation to the present state of affairs, inasmuch as the current ways of describing our situation do not allow of any rational or effective attempt to grapple with the fundamental political considerations to which all insights and conclusions must ultimately be reduced.

IV. Pattern Recognition's Place in the Steering Process

Adoption of an approach such as the one here outlined would be an adaptive response of our system to the anxiety felt by many today over

the adequacy and reliability of the information processing aspects of our vital political processes. But the function of parts of systems is dictated in large part by the organizing principles employed in the systems' design. Political theories serve such a role relative to political institutions. Unfortunately, our concentration, as pointed out earlier, on the technological progress and on the development and use of analytic methodologies has not been accompanied by conceptual advances toward a politics and institutions consonant with a program for steering toward balanced evolution. It is proposed, therefore, that an organizing principle be used which emphasizes the behavior of socio-political systems rather than institutions, values, ends, and the other elements comprehended in traditional political theories.

The behavioristic approach to steering in general can be briefly described as follows: Given any object, relatively abstracted from its surroundings for study, this approach consists in the examination of the output of the object and of the relations of this output to the input. By "output" is meant any change produced in the surroundings by the object. By "input" conversely is meant any event external to the object that modifies this object in any manner.*

From this definition of the behavioristic method a broad definition of behavior ensues. By "behavior" is meant any change of an entity with respect to its surroundings. This change may be largely an output from the object, the input being then minimal, remote or irrelevant; or else the change may be immediately traceable to a certain input. Accordingly, any modification of an object, detectable externally, may be denoted as behavior. The term would be, therefore, too extensive for usefulness were it not that it may be restricted by apposite adjectives; i.e., that behavior may be classified.

The consideration of the changes of energy involved in behavior affords a basis for classification. Just to highlight those types of

*This statement omits the specific structure and the intrinsic organization of the object. This omission is fundamental because on it is based the distinction between the behavioristic and the alternative functional method of study. In a functional analysis, as opposed to a behavioristic approach, the main goal is the intrinsic organization of the entity studied, its structure and its properties; the relations between the object and the surroundings are relatively incidental.

interest here, active behavior is that in which the object is the source of the output energy involved in a given specific reaction. Active behavior may be subdivided into two classes: Purposeless (or random) and purposeful. The term purposeful is meant to denote that the act or behavior may be interpreted as directed to the attainment of a goal; i.e., to a final condition in which the behaving object reaches a definite correlation in time or in space with respect to another object or event.

Purposeful active behavior may be subdivided into two classes: "Feedback" and "non-feedback." As employed here, the term feedback signifies that the behavior of an object is controlled by the margin of error at which the object stands at a given time with reference to a relatively specific goal. All purposeful behavior may be considered to require this kind of negative feedback. If a goal is to be attained, some signals from the goal are necessary at some time to direct the behavior.

Feedback, purposeful behavior may again be subdivided. It may be (predictive), or it may be (non-predictive). Predictive behavior may be subdivided into different orders.

It is apparent that each of the dichotomies established, singles out arbitrarily one feature, deemed interesting, leaving an amorphous remainder: the non-class. This classification scheme was adopted because it leads to the singling out the class of predictive behavior, the type of behavior called for in the many recent Government pronouncements on the need for the Nation to take the long view.

This classification of behavior--active, purposeful, feedback, predictive, with first-, second-, etc. orders of prediction provides a good framework with which to interrelate the other sections of this memo. Using this classification of behaving systems, the situation or meta-pattern recognition function discussed earlier would be the means for perceiving changes produced in its surroundings by Government actions and to relate such outputs to the input via multi-order predictive feedback. In such a system, those signals from the goal or value base (ecological balance?) would be detected which are necessary at some time to direct behavior. There are several new elements in the White House which might serve as that part of a national "information management system" which detects and

measures the margin of error at which the Nation stands at a given time with reference to a relatively specific goal.

With these and other recently created elements serving the Institutional Presidency in a systemed manner, the notion of a Steersman for the Nation would be more than hyperbole. This approach to governing would represent a break with the past, an evolutionary step toward a science of politics. For example, traditional political scientists look at the Presidency not systematically but analytically in line with the Western tendency to objectify phenomena--to see it "from outside". In general, this attitudinal "separation" of complex entities fosters with the application of the scientific method the separation of one aspect of reality from another for purposes of study. This superlatively effective way of discovering solidly verifiable truths tends, precisely because it is sharply focused, to ignore whatever lies outside its periphery of attention. As discussed earlier in this memo, this principle of separation or differentiation has been advanced in most substantive areas including politics.

Now after four centuries of this reductionist approach to understanding the universe, the principle of fragmentation in modern society has come to outpace the principle of unity and, hence, is producing a higher and higher degree of disorder and disutility. There are many words used to signify this disorder or disutility, i.e., anomie, ecocatastrophe, entropy, anarchy, and so on, depending on the user's discipline and value-base. To mitigate such adverse tendencies biological and social systems evolve management or control or governing processes. The degree of success attainable by these mitigation processes in a system is related to the quantity of information collected, processed, stored and used in the process of steering management. For the reason that the Domestic Council, the Office of Management and Budget and the NGRS and other units are adaptive responses to our national situation, they are indeed evolutionary.

But although there exists a growing corpus of knowledge groping toward generalizations applicable to the practical task of managing complex systems like our Ship of State and there are new units charged with performing associated tasks we are just beginning to

comprehend the scope of "governance." In subject matter it covers the building-block topics like information measurement, the relationship of order, disorder, and entropy; the conceptual ties between life, thermodynamics, and cybernetics; applications of information theory to purpose and behavior; biological and social adaptation; feedback theory in self-regulation of human behavior and other bits and pieces of the jig-saw leading to considerations of the more macroscopic systems such as politics, societies, and cultures. Walter Buckley of U. C. (Santa Barbara) has published 1/ a good collection of some of the classical papers in this literature. Perhaps the first milestones toward a comprehensive integration of these ideas into a new theory of societal and political processes are in Karl Deutsch's Nerves of Government and Etzioni's latest work. 2/

In passing, it should be noted that in addition to the traditional approach to governance and the one proposed in this memo, there is another school of what may be called socio-political romanticists and visionaries who are appalled by the idea of government construed as a purposefully-behaving, adaptive, error-correcting process. These latter-day utopians subscribe rather rigidly to a variety of normative concepts of what future society ought to be. Unlike the classical utopians who populated their social systems with perfect human beings, perfect structures, perfect situations, or perfect principles, the new utopians are concerned with non-people and with people substitutes operating in a maze of computer hardware, functional analyses and so on. Boguslaw 3/ did a good job in challenging such ideas.

But the new utopians have no cause for alarm over what is proposed here. Purposeful government behavior based on error-correction takes people as "givens" with all their foibles and dreams, and tries to react so as to right obvious wrongs besetting the populace operating in the context of an extremely probabilistic universe.

1/ Walter Buckley (ed.) Modern Systems Research for the Behavioral Scientist. Chicago; Aldine, 1968.

2/ Amitai Etzioni's The Active Society. New York; The Free Press, 1968.

3/ Robert Boguslaw, The New Utopians. Englewood Cliffs: Prentice-Hall, 1965 or '66.

And it would employ the computer of the new utopians, but in a way so as to help in achieving a more penetrating and encompassing understanding of the world's natural systems and how man impinges on them.

These contrasting views of socio-political guidance systems were discussed about thirty years ago by Karl Popper in The Open Society and Its Enemies. Arguing against those who would create the ideal society even if it meant killing off dissenters, he wrote that a systematic fight against suffering and injustice and war is more likely to be supported by the agreement and approval of a great number of people than the fight for the establishment of some ideal. The existence of social evils can be comparatively well established

"It is infinitely more complicated to reason about an ideal society. Social life is so complicated that few men or none at all could judge a blueprint for social engineering on a grand scale... Accordingly, adopt the method of searching for, and fighting against, the greatest and most urgent evils of society, rather than searching for, and fighting for its greatest ultimate good."

I believe that the "greatest evil" in modern society--to use Popper's term--is the result of the principle of fragmentation which in outrunning the principle of unity is producing a higher and higher degree of disorder or ecological imbalance. But for "fighting against" this evil our capabilities for detection and perception of social "errors" must be improved to permit holistic understanding of our situation for presentation to decisionmakers in such a way as to minimize uncertainty in the formulation of steering strategies in accordance with some "goal" such as ecological balance as alluded to earlier. The creation of organizations without providing for such improvement is to put old wine in new bottles:

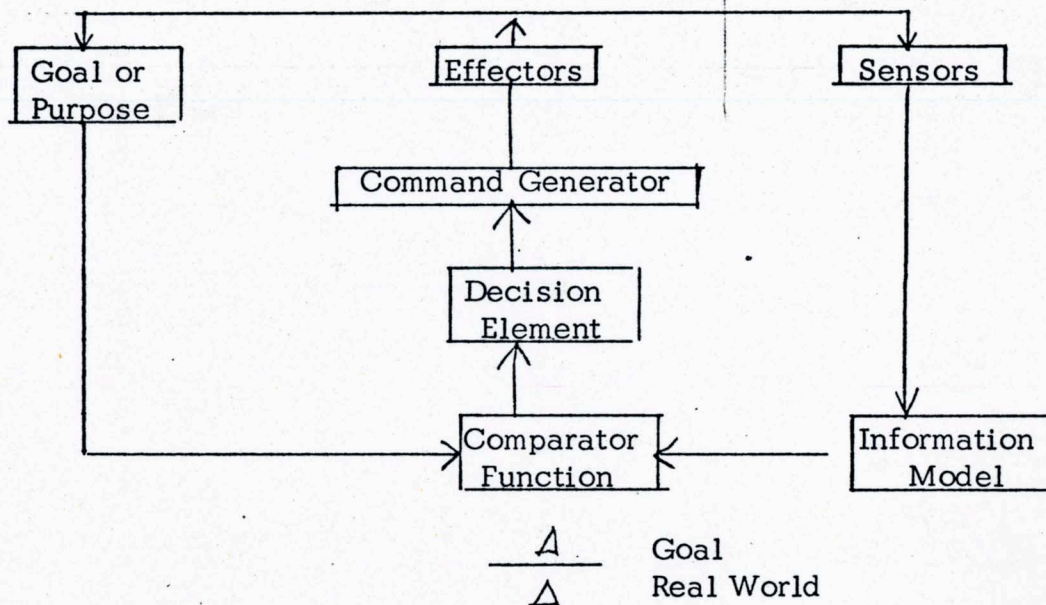
Some recommendations for a start toward provision of the means for improving the steering function of government are offered in the next section.

V. Recommendations

- A. Make explicit the theoretical basis of the Institutional Presidency as an innovative approach to governance or steersmanship appropriate to the historical period through which our "Ship of State" is moving.

This would require telescoping modern science, political theory, and political institutions and practices to a degree unachieved during any past period. However, recent developments in the policy, information, decision and other sciences coupled with tentative efforts to incorporate these advances into a new "science of steersmanship" portend the possibility of imminent breakthroughs toward the requisite syntheses. But these breakthroughs could happen in nations other than the United States.

While it may be premature to do so, I venture in the following crassly oversimplified diagram and in its explanation to present such a candidate theoretical basis for a purposively behaving governance system.

REAL WORLD (Changing Δ) $\rightarrow$ 

This sketch is intended to convey the essential notion that information (rather than data) about the "real world" is an element necessary to goal-directed modes of systems' behavior. In such modes of behavior an active system is closely coupled to certain features or objects in its environment. The analysis of the behavior is then quite incomplete if the system is considered in isolation, for it is only a part of a larger system.* Behavior directed to a specific goal and determined

* As is usually the case this seems to be a trite statement at the current stage--but we must recall that it goes against the grain of about four centuries of "reductionist" thought and fragmented social behavior. There seems to be a crying need of people today to have this principle reaffirmed. This is why there is such emphasis on the unity of nature as displayed in the growing concern for ecological systems. For an enjoyable rendition of this theme, see Max Ways' "How to Think about the Environment," Fortune, February 1970, pp. 98-102.

by the relations between the system and goal requires a tight coupling with the environment. Without stretching the imagination too much, one can attach sets of technical, biological, psychological, economic, institutional, societal, or other labels to each of the elements in the figure. But all of the resulting paradigms of animal, machine, or societal systems, would share that common feature represented in the diagram by lines connecting the elements; i.e., communication channels. This conjoining in complex systems of communication and purposeful behavioral processes is the basis for cybernetics, one basis for a new science of "steersmanship."

- B. Configure the present components in and around the Executive Branch into a coherent explicit system in accordance with the tenets of the evolving theory of governance.

To illustrate one set of assignments on the basis of the figure presented above:

1. Sensors - The hundreds of statistical and data collection services are the primary sources of social intelligence.
2. Information Model Formulators - While there are many groups converting data into information models at lower levels of generalization, there is no group dedicated to construction of models of models, i.e., to the perception of patterns of change transpiring in the national situation along the lines discussed in section II of this memo.

The term "change" is most important in this context because of the high degree of inertia characterizing large systems. This characteristic feature of multidimensional and, in the Government case, bureaucratic systems makes along with other things for extremely long response times and, for what are at best, poor feedback connections between this output and the input of the system. The remedy, obviously, is to perceive trends in the dynamics of the real world which permit "projective perceptions" or "forecasts" of the future states of the system and thence permit its "anticipatory responses" thereto. Sounds simple, but there is a hooker.

The "perceivable trends" or "crucial problems" as they were described earlier include such things as growth in population, advances in science and technology, and development of techniques for effective organization and direction of large aggregates of people and resources which appear to have transformed the natural economy of the United States into a complex and internally tightly integrated system. As systems such national economies have the characteristic that events in relatively narrow sectors produce effects which propagate broadly and cause significant, sometimes unexpected, disturbances in widely separated areas. In addition, because technology now provides the basis for many economically important activities, and because its evolution, while not exactly predictable, seems increasingly rapid, the existing, relatively static, institutional frameworks tend everywhere to be subject to more intense stress. Examples of such difficulties are: (a) growing recognition that many acute social problems which, while seemingly of local origin (e.g., urban congestion, poverty, civil instability), are strongly coupled to various internal characteristics of the social-economic system as a whole: (b) the need to devise, under limited overall budgets rational and generally persuasive bases for setting relative priorities among national programs; and, in particular, (c) devising a broadly acceptable basis for deciding how the cost of such programs is to be allocated among the income-producing elements of society.*

*The principles of societal systematics won't be labored here: But in policymaking we fail more often than not to consider them. Each of us could present a set of pet examples like, for instance, when Congress passed the Medicaid Bill. Medicaid essentially gave one group the purchasing power to compete for an already scarce resource, health care. Medicaid did not build hospitals; it did not train more doctors and nurses; it did not, so far as I know, even do much to impact our worst (some would argue this in good) medical shortcoming, the high infant mortality rate in this country--one of the highest in the "developed" world. The current result could have been predicted using system principles--spiralling medical cost as the public sector bids against the private for an inelastic supply.

* (Continued). This illustration was used to underline a point about goals which legislators even with the best humanistic intentions must come to appreciate: In the new and complex economy, without the luxury of idle resources, one goal diverts resources from another, and we have to factor this into the decisionmaking.

One of the distinguishing characteristics of such meta-problems is the difficulty of reaching understanding and doing something about them through existing organizational arrangements at any level of Government. The power position of a bureaucracy, Weber tells us, is normally overpowering: "The absolute monarch is powerless 1/ opposite the superior knowledge of the bureaucratic expert..." As an example, he cites the decrees of Frederick the Great concerning the abolition of serfdom. They were derailed by the bureaucratic apparatus, which regarded them as the occasional ideas of a dilettante.

From the systems' point of view, this is so--at least in part--because the scale and scope of such problems require interagency analyses and planning while agency responsibilities are circumscribed and resources inadequate at the municipal, state and even Federal levels. Furthermore, generally satisfactory solutions will inevitably involve the active participation of non-governmental organizations whose individual roles and associated motivational arrangements will need to be specifically defined and provided for--tasks for which there are neither resources nor a generally accepted guiding philosophy.

1/ H. H. Gerth and C. Wright Mills, eds. From Max Weber: Essays in Sociology (New York: Oxford University Press, Inc. 1958, p. 234).

3. Other - I will resist the temptation to consider other existing organizational components in relation to the remaining "block boxes" in the block-diagram. It's not because I lack ideas but because the reader's span of interest should be running out about this time. But in passing, it should be pointed out that the "Command Generator" component is the reserved for the "Steersman" of the societal governance system.

- C. Establish a policy analysis unit to service all components of the Institutional Presidency and, in particular, its "decision element."

In the years following World War II, the "think tank" or captive non-profit corporation became an essential element in the national defense picture. But on the domestic side wherein resides the real key to the defense of the United States in my estimation --based on another set of data points which shall not be elaborated here--the ad hoc committee, staff, commission, etc. have been the major sources of assistance. Meanwhile, the policy sciences, for example, have developed a useful bag of tools which remain relatively untapped by policy makers.

A small policy analysis unit within the Domestic Affairs Council could serve as a focal point for concentrating the many analytical tools developed in, and outside, Government upon at least three essential problems:

- a) Recognition and transmission to the DAC of comprehensive patterns of problems which cut horizontally across the sets of more parochial problems recognized by the member departments and agencies or DAC task forces and which require, therefore, commensurately comprehensive solutions.
- b) Analyses requested by DAC of the horizontal cross-departmental ramifications of policies proposed by vertically organized departments, agencies or task forces.

- c) The patterning of separate policies as generated by the Administration into a comprehensive whole. What could it be called? In the light of the inevitability of change and its system-wide consequences, every effort must be made to insure its management along paths consonant with value-based National aspirations. Now, as suggested earlier in this memo, unsteered change will probably produce retrogressive, devolutionary, or disintegrative effects on the social system; the objective of steersmanship or governance is just the opposite, i.e., maintenance of order and utility in the face of such change. Such adaptive behavior is called development, evolution or progress.

Therefore, the comprehensive pattern of policies might be called: The Nixon Program for Social Development (or Evolution). Arising out of a horizontal meta-pattern of policies originating in vertically structured departments and modulated by the most advanced techniques in the policy sciences such a program would be a uniquely invaluable political asset for many reasons which would be elaborated in a separate memo if any interest is shown in the idea.

Epilogue

Emphasis was afforded in this memo to what is called comprehensive pattern recognition, horizontal synthesis of problems and policies, or information models because my years of academic and government experience have revealed that the lack of concern for this function is, perhaps, the greatest obstacle to national steersmanship in this era of rapid and tumultuous change. Nor is this lack perceived only by information or political theorists. Edna St. Vincent Millay, for example, clearly saw the problem that is now felt so widely throughout the land:

"...Upon this gifted age, in its dark hour
Rains from the sky a meteoric shower
Of facts...; they lie unquestioned, uncombined;
Wisdom enough to leech us of our ill
Is daily spun, but there exists no loom
To weave it into a fabric."

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MEMORANDUM

THE WHITE HOUSE
WASHINGTON

EXECUTIVE

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October 26, 1970

MEMORANDUM FOR KEN COLE

SUBJECT: Future of the Goals Staff: Mr. Nash's Letter

I continue to share some of the opinions expressed by Nash -- and his letter is one of several which have been received here recently. So let me continue to press you to keep the "futures" effort alive with some identifiable component in the Domestic Council.

I am asking Pete Halperin to get a little more information about the UK development to which Nash refers which I will pass along (page 3).

Leonard Garment

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OCT 30 1970
CENTRAL FILES

behest, are concerned with these basic issues. And, in days like these, when there is increasingly a gap between, on the one hand, the institutions of higher learning and intellectuals in the press and the media and, on the other hand, some key members of the administration, anything which gives a rather different picture of what the President is trying to do other than the one which now dominates public discussion is, of course (if only from the standpoint of immediate self-interest), a tremendous gain.

But there is, if I may say so, a much more significant reason why in my judgment the work of the National Goals Research Staff in some shape or form should continue. I have in mind the sheer need, whatever the administration in office, for the kind of venture represented by the whole idea of the National Goals Research Staff. Here I cannot give any better justification than the one that the President himself presented in the initial statement which was released on July 13 last year.

I can at greater length, if you so desire it, expand in any fashion which you think fit, either orally or in writing, what I am trying to say here. But as a citizen I would like to emphasize the fashion in which each day one meets in the press and on television and radio, vivid references to the pressing and bewildering issues that involve calculation as far as possible of the long-range implications of what as a nation we are doing. Just to mention one of them which over the last week has appeared, I think of the fashion in which Congress and the President equally recognize that an adequate railway passenger system is a compelling demand and that somehow we must rely on federal action rather than leave the matter to the ordinary working of market forces of competitive forms of transport. To mention just one more illustration: I think of the wide discussions about the possibility of some kind of national health service. I must confess that if anyone had suggested to me when I came to America just over 30 years ago that central to the discussions of a Republican administration--or a Democratic one, so far as that goes--there would be the need for this kind of far-reaching federally accepted responsibility for public transportation on the one hand or health services on the other within my lifetime, I would have treated the idea as nonsense. Indeed, I might say that the only reason why the idea is now credible to me is because it has actually happened. Yet unfortunately, as we all must recognize, whether we are identified with the right or the left or the middle of the present political spectrum, current thought, both right-wing and left-wing, seems incapable of producing the necessary fresh understanding of what is happening to us. I cannot help but feel that when many critics of the President are asking him "to give a lead" they genuinely believe that they do so because of their despair about the conventional institutions in our society: universities, political parties, churches, etc. Thus in sheer desperation they are asking themselves the question: "To whom can we turn?" And they place--even in criticism--this terrible weight about the urgent need for guidance about the future on the shoulders of their President.

Let me add, too, that in Canada, as in the United Kingdom and in Europe this last summer, I came across not only considerable interest in the fashion in which the National Goals Research project seems to imply that at the very

October 22, 1970

heart of the American government there is some responsible concern with these questions but an appreciation of it that was sometimes quite wistful. I think, for example, of one hardboiled Canadian mathematician of my acquaintance. He has traveled all over the world to scientific and academic congresses from Japan to the U.S.S.R., and he is a man of singular political and intellectual sophistication. In a conversation with me he expressed his sheer sense of relief that something like this was being done and then added that if America could not give the lead to the West in facing the tremendous issues that perplex our modern liberal democratic society then there simply is not any hope. I think, too, of comments which I heard in Paris and in London. Incidentally, as you may have heard, when Prime Minister Heath took over his responsibility from Mr. Harold Wilson one of his first steps was to establish a small "policy review staff" in the Cabinet office. Its resemblance to the National Goals Research Staff is quite striking in that it consists of economists, sociologists, and ecologists, as well as-- what the British would call--civil servants. There was a reference to this in the New York Times on October 16, and it points out that the staff will analyze for the Cabinet "any proposed programs in terms of their cost as against available British resources, alternative programs and general Government strategy. This will provide an over-all view in addition to the usual struggle between ministries proposing new ideas and Treasury guardians doubting them." When I was in England in August I had picked up one or two indications that the Conservatives might do something of this sort, but I did not realize that Mr. Heath would act so soon. The resemblance between what he has done and the idea behind the National Goals Research Staff makes me wonder whether he had picked the idea up from what we have already started on this side of the Atlantic.

But whether Prime Minister Heath did so or not, it seems to me that somehow we should keep in being within our administration the kind of research task force that could be looking quietly and steadily at the sort of long-range issues which statesmen in any country have to face, for in the democratic countries (as my Canadian friend commented) this means a sustained hope that America will continue to take the lead.

As I have remarked above, I shall be only too glad, of course, to amplify in any way I can what I have said in this letter to the extent that you think that my remarks may be of value to you and your colleagues in the White House as you work out the future policy for the National Goals Research project.

With every good wish.

Gratefully and sincerely yours,



Arnold S. Nash
Professor of the History and
Sociology of Religion

ASN:sm

P.S. Although Charles Williams knew of my intention to write to you, he was not aware, of course, of what I intended to say; and so I am venturing to send a copy of this letter to him so that if you wish to raise the matter in any way he will be acquainted with what I have said.

EXECUTIVE
WE 5
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THE WHITE HOUSE
WASHINGTON

December 16, 1970

MEMORANDUM FOR LEONARD GARMENT

FROM: Charles Williams
MEMORANDUM FOR

ED MORGAN

I am attaching an incomplete draft of our paper on "Aging Americans: An Opportunity for National Goals Research". In case you don't already have a copy of this, attached is a copy of a draft report on the aging prepared by the National Goals Research staff. You may want to crank this into your deliberations on the matter.

and administration proposals.

Finally, we would appreciate your comments on the draft. They should be taken into account in the final version.

KEN COLE

In addition, I thought the paper might be useful in the closing stages of the current debate on national goals.

The final version will contain a summary of the findings of the research on national policies for aging, and will also include a number of recommendations, that an appropriate body should be created to study the problem of aging, should it be decided that such a body is warranted. This is the outline which we outline.

November 3, 1970

For: Ken Cole

For the Task Force on Aging

Attachment

I will tell Williams, and whatever else you want to tell him.

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