Institutional Approaches to Innovation and Change (II): The Configurational Perspective on Institution Building.

The Configurational Theory of Innovation Diffusion model (CIDER) is introduced and used to demonstrate how the world of the institution builder could be ordered as part of such a grammar for designing and implementing systems of action. The four variables of the CIDER model—configurational relationships, linkages, environment, and resources—are used to develop general strategies for institution building. (Author/MLP)
INSTITUTIONAL APPROACHES TO
INNOVATION AND CHANGE (II):
THE CONFIGURATIONAL PERSPECTIVE
ON INSTITUTION BUILDING

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INSTITUTIONAL APPROACHES TO INNOVATION AND CHANGE (II):
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By H. S. Bhola

Institutions are, undoubtedly, the building blocks of cultures. No wonder, then, that in seeking to promote development and modernization of societies, the development elite everywhere have sought to build innovative institutions.

Institution building (I-B) has not merely been a domestic concern of nations. From as early as the early 1950's, international technical assistance has also sought to donate to the developing nations gifts of new institutions -- gifts that, in the words of a TV commercial, would keep on giving. I-B has been a particular preoccupation recently of the American technical assistance. In 1962, for instance, the institution building perspective was formally adopted by the Interuniversity Research Program on Institution Building (IRIB), and in 1964 by the Committee on Institutional Cooperation (CIC). Apart from these two major, long-term programs that included many country projects, the I-B perspective has also been used by numerous smaller projects in various development sectors in many different political and cultural settings. While official interest in I-B has waxed and waned, and as international civil servants have swayed between commitment and doubt, a considerable body of literature on I-B has

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1 Amy G. Mann (ed.) Institution Building: A Reader, Bloomington, Ind.: International Development Research Center, 1975, page v.

accumulated. I-B has indeed been a well-documented development experience.

A stock taking of the experience with the I-B perspective is now under way. The special Program of Advanced Studies in Institution Building and Technical Assistance Methodology (PASITAM) established with a NUCIA grant has, for some two years, had the mandate to review what has been learnt from the I-B perspective; and to advance the perspective to make it a better tool for ordering, explaining, planning, and strategizing for I-B actions.

A recent PASITAM Newsletter (No. 4, December 1975) in an excellent capsule critique of this perspective, entitled, "IB: The Changing State of the Art," had this to say:

Here is what we have learnt in twelve years of experience with this perspective.

Lesson 1 -- It has helped practitioners identify and address matters they might otherwise have neglected, especially linkages between an organization or project and its environment.

Lesson 2 -- The components of the original IB perspective do not identify all the ingredients necessary to useful recipes for devising and implementing social change efforts. Others include management, incentives, communication, error avoidance, technology, timing, etc.

Lesson 3 -- There is no one set of ingredients for such institution-building recipes, because institution building is not one kind of activity: it is the intended outcome of various processes.

Lesson 4 -- Given resources, time and environmental tolerance, organizationally bounded technologies are among the easiest kinds of action systems to institutionalize. The results may or may not serve development ends.

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Conclusion -- The original model was applied and, as its authors intended, it has been tested. It has inspired useful questions and helped people organize information. It has moved us closer to an understanding of our concerns. And the time has come to move beyond the model.

To many students of I-B, the I-B perspective has simply meant the Esman model. A detailed review of the Esman model was conducted by Bhola\(^1\) under the current PASITAM grant. He concluded that in terms of a "historical estimate" the model deserved to get good marks but a "current estimate" would suggest urgent new departures. Those interested in a comprehensive delineation of the Esman model, its paradigmatic context, its conceptual and definitional structure and in an evaluation of its potential for strategic planning should refer to this paper which is being used here as a springboard for the discussion that follows.

The Grammar of Artifactual Action

and the CLER Model

Elsewhere,\(^2\) we have proposed a generic grammar of artifactual action for change agents. Artifactual action is defined as action that seeks to design, promote and actualize new social and cultural artifacts -- metaphors, ideologies and alternative futures; policies, plans and social designs; new patterns of values, attitudes, cognitions and behaviors; new societies, communities and organizations; and new group and individual

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\(^1\)H. S. Bhola, "Institutional Approaches to Innovation and Change: A Review of the Esman Model of Institution Building," January 1976, 30 + v pages. Accepted for national distribution by the ERIC Clearinghouse on Educational Management.

identities. Artifactual action is both symbolic invention and the structure of its actualization. It’s both process and product. Artifactual action thus covers all instances of praxis -- by commoners as well as the greats of history.

The grammar of artifactual action involves three overlapping but analytically distinguishable processes:

(a) Ordering/Relating
(b) Typifying/Hypothesizing, and
(c) Experiencing/Correcting.

**Ordering/Relating:** To be able to do anything at all with the realities surrounding him, the change agent must engage in an ordering of his world. He must throw a perceptual net on the buzzing, booming confusion that the phenomenological world typically presents. He must catch some reality in his perceptual net. To understand is to structure; and to understand, the change maker must structure. To structure is to include some and to exclude much else. It is to draw boundaries, to reveal or to ascribe bonds between entities included within the circle of the change maker’s concern. That is what we mean by the process of ordering. The change agent must also relate himself with the configuration of change so ordered. He must, that is, structure himself into the structure of ordered relationships within the client system.

**Typifying/Hypothesizing:** Once the ordering and relating have been done, the change agent must begin to develop typical expectations about the social entities that are part of his ordered reality; and to hypothesize about the processes inherent in this particular slice of reality. The world of change is peopled with individuals, groups, organizations, communities and subcultures. Social and behavioral scientists have studied these
social entities for years and have created a fund of theoretical and empirical knowledge that, if properly used, can tell us a lot about what to expect in new and unseen situations of change. These expectations, of course, will be stated in terms not of certainties but probabilities; not of predictions but forecasts which will have to be tested in the existential future.

Experiencing/Correcting: Finally, both the ordering and the hypothesizing must meet the tests of the real world. Change must be experienced as it takes place and existential corrections must be applied both to the ways in which the world was ordered and to the typical expectations that were developed about it on the basis of social and behavioral science knowledge.

The Grammar of I-B Actions

Even this brief introduction to the grammar of artifactual action should suggest some general approaches to I-B. For instance:

(a) The concepts of ordering/relating should point to the possibilities of imposing temporal phases or causal chains on long-term plans for I-B. A structural ordering should bring to light decision-making centers, existing networks of institutions and client groups and publics that an institution builder must take in view. A process ordering should indicate that I-B often involves a process mix of policy making processes, design processes, managerial processes and instructional and communication processes. Finally, ordering and relating should enable the change maker to pay attention to the donor system itself and to the systems of advice and influence to be built by the donor system to achieve I-B.
(b) The concepts of typifying/hypothesizing should take us away from a search for the I-B's Holy Grail. We should not be looking for a set of formulas that should work in each I-B project, everywhere, at all times. Instead, we should learn to look to social and behavioral sciences for illuminating the general aspects of I-B, and for providing us with generalizations that could be transferred to particular situations and filled with concrete details in situ. Most importantly, the concept of typifying should help us introduce the concept of relativity into the design of I-B strategies. It should give us a configurational perspective.

(c) Finally, the third step of experiencing/correcting of the grammar of artifactual action should enable us to look at each I-B project as an experiment which is modified through existential corrections as the institution builder learns from his own actions.

The Configurational Theory of Innovation Diffusion: The CLER Model

The Configuration Theory of Innovation Diffusion (or the CLER Model) supplies the rules of analysis and parsing for the grammar of artifactual action. The CLER model is a systems model translated into the vocabulary of change and related to the design and management concerns of the change maker and the institution builder.

It can be written as a functional relation as follows:

\[ D(\text{Inn}) = f(C,L,E,R). \]

That is, the diffusion of an innovation is a function of C (configurational relationship between the innovator system and the adopter system), \( L \) (linkages between the innovator system and the adopter system and within each of the two systems), \( E \) (environment(s) surrounding the two systems engaged in the change transaction) and \( R \) (resources available to the innovator system for promoting the innovation and to the adopter system for incorporating it). A synergetic optimization of the four variables will increase the probability for a diffusion event to occur.

A detailed formal presentation of the CLER model is not within the scope of this paper, and a demonstration of the usefulness of its variables and its conceptual structure in strategizing for I-B must wait until later. It must be stated here, however, that each innovation will activate its own matrix of configurational relationships; generate its own particular network of linkages; select a part of the environment with which it would interact; and identify its own sources of support and sustenance. Indeed an innovation by being a particular kind of innovation would determine the opening act of the drama of change — choose the first set of actors and the initial setting on the stage. The change agent would then manipulate the variables — \( C, L, E, \) and \( R \) — to write a new script, introduce new actors, change the stage settings and to have a different play.
An I-B innovation can (but may not always) generate sets of considerations as shown in the following schema:

![Diagram showing sets of considerations generated by an I-B project]

Figure 1. A schema showing sets of considerations generated by an I-B project.

An I-B project must look both inwards and outwards. Looking inwardly, project directors would find themselves dealing mostly with instrumental considerations, asking the question: What kind of an instrument the new institution should be? Of course, the institution builder will have to deal with the related questions of social architecture of the institution that he seeks to build.

In looking outside to the environment surrounding I-B, systemic questions will have to be considered. These will, in turn, relate to questions of governance policy and institutional policy. ¹

institutional policy question is basically this: What will the new institution or a redesigned institution do to the existing network of institutions? The governance policy considerations must relate to what the new institution will do to the existing equilibrium of political, social and economic affiliations of the power elite, the organizational elite and the publics?

Institutional Interventions:

A Process Ordering

In the preceding, we have talked of a time ordering and a structural ordering. Structural ordering, in turn, will involve ordering of both entities and processes.

Ordering, as we have indicated before, is throwing perceptual nets on the phenomenological world to catch reality fish. These nets are, of course, made of conceptual threads woven on the theoretical loom. The theoretical loom could be anthropological, sociological, political, economic or psychological. One could thus do an anthropological ordering, a psychological ordering, a moral ordering or a praxiological ordering of the world.

Institutional Approaches to Change Versus I-B

A process ordering of the universe, described in literature with the catch-all phrase "the I-B perspective," suggests that this universe may be better delineated in terms of three concurrent, coupled, yet analytically distinguishable processes, as follows:

(a) Institutional Analysis

(b) Organizational Design, and

(c) Institution Building.

Institutional Analysis

A conception that relates power, policy making, institution building and social change processes as various aspects of the same human urge for praxis should be useful here to see I-B processes in a proper perspective.\(^1\) The elite, to fulfill their urge to make interventions in the world around them, seek new social outcomes. These they justify by reference to new systems of ideas, in other words, new ideologies. These ideologies are sought to be given practical forms within particular socio-economic contexts through policy making behavior which is basically a political process. The objective is to give new directions to social power inherent in the society to bring about new social outcomes. While policy making behavior gives direction to social power, I-B behavior harnesses the power being generated and directed. To coalesce individual purposes into a collective will, to assure the execution of this collective will systematically and with continuity, institutions\(^2\) have to be created. That is the real significance of institution building in the overall process of cultural action.

Institutional analysis is thus one-half of the process of policy analysis, the other half of that process being political analysis. Since policy design is, essentially, directing and harnessing social power for alternative social outcomes, any policy analysis must take into consideration the calculus of new distributions of power (political analysis); and the development of new systems of action (institutional analysis) necessary for actualizing policy initiatives.


\(^2\) In the literature of I-B, an institution is an organization that grew up; that is, it became institutionalized. We will stick to a similar usage of these terms in this paper.
As part of an institutional analysis, questions such as the following must be asked: What are the social, economic or educational policy goals as stated by the power elite of a society? Does the achievement of stated policy goals involve clear-cut institutional mediation? Do needed institutions already exist within the social system? Will those existing institutions need adaptations for them to achieve new policy purposes? Or will brand new organizations have to be designed and introduced into the society? In other words, is an institutional approach a necessary part of the development strategy? If so, what institutional prescriptions might be appropriate?

Organizational Design

Organizational design is the process of designing roles, and rules for relating those roles to create a system of action with a certain set of obligations to the environment and resources to fulfill those obligations. The process of organizational design may be seen as a rational-technical process of blueprinting formal organizations.

Questions that interest an organizational designer are these: What activities must be carried out by an organization to fulfill its obligations to the environment? What material and social technologies will be used in pursuance of those activities? What tasks must be performed and what would be the logical patterns within which those tasks could be organized? What roles might be invented to perform clusters of related tasks? What rules must be designed to relate those roles in a functional structure of command and cooperation? What kind of a "living system" might grow, on the technical system and how some of the typical problems of a living system might be tackled as part of the blueprinting for organizational design?
Institution Building

Institution building is a process that can be best described as an organizational launch into the institutional space of a social system. As contrasted from organizational design which we have described above as primarily being a rational-technical process, institution building must respond to the logic of socio-political processes. I-B involves the entry of a new organization into the existing institutional network of a society, inevitably, requiring systemic adjustments with those institutions and involving both competitions and collaborations. At some stage, I-B must also tend to the building of exchange and interdependency relationships with client systems and other publics.

The questions of concern for an institution builder are these:
What existing institutions will, sooner or later, become involved in transactions with the new organization? What linkages might be used by the organizational elite in making those transactions? What will be the resources available and what kind of competition for resources will exist? How might the general environment in the society and specific support from client publics be used to promote institutionalization of the new organization?

Institutional Interventions:
A Praxiological Ordering

Human action and conduct, including I-B action and conduct, do not take place within pure analytical categories. The practitioner's world is defined in terms of projects and programs; and one particular project or program may include a multiplicity of tasks including what we have called, institutional analysis, organizational design and institution building. Again, those tasks may be undertaken by a group of modernizing elite in a society independently; or may be undertaken by them with assistance from
outside the country under some arrangement of technical assistance. Again, in one case an I-B program may involve updating of pre-existing institutional entities; in another, it may mean inducing completely new organizations within the society.

The schema on the next page delineates the many different concerns that must be part of designing institutional approaches to change and refers to the settings in which those design tasks might be performed. Looking at the real and concrete world of institutional interventions for modernization and development, one indeed comes across a multiplicity of situations each requiring a somewhat different level of response and a different set of strategies of intervention. For example, the following instances of institutional interventions have been seen to occur:

1. Organizational articulation
2. Reorganization
3. Structural innovation within a pre-existing organization
4. Organization development
5. Organizational renewal
6. Innovation of the total organizational identity
7. Organizational design and installation of the newly designed organization within an existing institutional network
8. Institutional transfer across cultures
9. Organizational disposal.

Organizational Articulation: One form of organizational intervention may be described as organizational articulation. In this type of situation, existing organizational goals may be restated for emphasis; existing but dormant criteria of performance may be recounted; existing rules, regulations and codes may be pronounced anew and more strictly enforced. The need for
Figure 2. Delineation of task and setting combinations involved in institutional approaches to change

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<thead>
<tr>
<th>Institutional Analysis</th>
<th>Organizational Design</th>
<th>Institution Building</th>
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<td>Human Architecture</td>
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**INTRA-NATIONAL**

- Inducing New Organizational Entities
- Updating Pre-existing Institutional Entities

**INTERNATIONAL**

- Inducing New Organizational Entities
- Updating Pre-existing Institutional Entities
organizational articulation may arise in a situation of internal crisis or outside demand for accountability; or merely as a consequence of executive succession within an organization.

**Reorganization**: Organizational change through reorganization is a most frequent phenomenon. Existing units of an organization may be broken into parts and then combined to form new divisions. At best, reorganization may involve a rationalization of work, and elimination of wastage. At its worst, it may merely reflect a power struggle between the various organizational elite. In the latter case, reorganizations may not contribute to efficiency but may instead introduce insecurity and fear into the organizational climate.

**Structural Innovation**: Sometimes the reorganization may involve genuine structural innovation leading to the creation of new organizational entities unlike those existing before. Examples would be the creation of a new state department of public information by bringing together the information functions (and related staffs) from other existing state departments; the creation of a new teacher education division in a school of education by bringing together resources from departments such as elementary education, secondary education, science education, and social studies education, all of whom may be presently engaged in the teacher education function. Such reorganizations are not merely subtractive and additive. They involve new assumptions about organizational obligations to the environment, new response patterns, and new identities for the reorganized structures and hence involve genuine I-O processes.

**Organization Development**: Organizational development is change directed at the human architecture of the organization. It is an approach to lubricating the social system of an organization to develop cohesive
groups so that the tasks of the organization can continue to be satisfactorily performed. The organizational participants learn to deal with feelings as facts, to accept other people as they are, and to negotiate roles with each other within the organizational setting. A healthy organizational climate results where feelings do not confound decision-making processes and the efficiency of the technical system of the organization is not lowered.

Organizational Renewal: Organizational renewal may be seen as creating a set of conditions within an organization that would permit the organizational elite and other participants in the organization to engage in a dispassionate re-examination of organizational goals as well as of the organizational structure established to achieve those goals. Since John Gardner first talked of organizational renewal, different sets of conditions for organizational renewal have been suggested, among them, organizational responsiveness, organizational adaptability, organizational health and problem-solving capacity of organizations.

Innovating Organizational Identity: Organizational renewal may sometimes involve a total abrogation of existing organizational goals and a systematic incorporation of new ones. Such a process of organizational change could be best described as innovating a new organizational identity. Examples would be the making of a "development administration" out of a "law and order bureaucracy;" or the upgrading of a service organization into a knowledge-based R & D facility.¹

¹A study that documents a case of innovating an organizational identity is H. S. Bhola, The India Education Project: A Case Study of Institution Building and Organizational Conflict, International Development Research Center, Indiana University, Bloomington, Indiana, 1975. Pages 100 + xv.
Organizational Design and Installation: Some instances of organizational change could be best described as involving design of brand new organizations ab initio and their launch into the existing institutional space of a society. The design of a new national institute of audio-visual education and its introduction within a traditional system of education would be an instance of this category of organizational change. In the preceding we have described the launching part of this process as I-B proper.

Institutional Transfer: Institutional approaches to development and modernization may often involve institutional transfer across cultures. The new institution may involve new functions, new roles, new technologies, new structures and new norms for it to take root within a new cultural setting. Introduction of the parliamentary system of government into an erstwhile colony, with no earlier experience with this type of political pattern, would be one example. Another would be the establishment of a land-grant agricultural university within a new cultural setting, as, for example, in India. Understandably, the distinctions between "organizational design and installation" and "institutional transfer" (and between some of the other categories) are not watertight. They are, nonetheless, useful.

Organizational Disposal: If we accept the utilitarian view of organizations implicit in the institutional approaches to development and modernization, we must then also entertain the possibilities of organizational disposal after organizational goals have been achieved. There may indeed be great merit in organizations to self-destruct after their missions have been completed. Organizational disposal may sometimes involve a complete disbanding (involving a multiplicity of important human problems); or it may involve giving the organization both new sponsorship and new functions.
All these various instances of organizational change may take place in intra-national settings or within the diplomatic settings of technical assistance. Again, under some situations the institution building tasks may get translated into generating and protecting the growth of what are called voluntary associations. The objectives there would be not to build new formal institutions, but to promote local initiative and the use of existing grassroot structures and associations.

As can be seen from the preceding, there are no pure cases of I-B as we have defined the process. In the real world of action, I-B is confounded by both organizational design problems and questions of institutional analysis. In the following sections, we will arbitrarily separate I-B from the other two processes to suggest intervention strategies of relevance to I-B in particular. Insofar as I-B must relate to the social architecture of the organization it is launching and to the prior considerations of the politics of institutional analysis, some of the I-B strategies must relate to these two processes as well. The question here then is of focus, not of exclusion.

The Essence of Strategy

'Strategy' is a term borrowed from the army. The dictionary defines it as the "art of so moving or disposing troops or ships or aircraft as to impose upon the enemy the place and time and conditions for fighting preferred by oneself." In terms of the CLER model, strategy means developing such an optimal mix of C, L, E and R that the probability of a change event occurring will be increased.

Strategies and Decision Making Paradigms

There are two general paradigms of decision making discussed in the literature: (1) Comprehensive/Prescriptive (C/P) and (2) Incremental/Remedial (I/R). The C/P paradigm is a planning paradigm to be used by participants in the decision process when making decisions that are based on their perceptions of collective welfare and, in an ideal form, must involve complete knowledge of the states of affairs, understandings of relationships between ends and means, availability of criteria for choices between possible alternatives and of effective methods of intervention to obtain chosen ends. The I/R paradigm is a political paradigm used by participants in the decision process to negotiate decisions based on their self-interest while they redefine goals, discover new information as well as possible alternative outcomes, and muddle through problems by trial and error. The CLER model can be used to develop strategies in the context of both the types of decision-making paradigms. Also, it can be used both by innovators and by adopters, by innovators to promote change and by adopters to make enlightened decisions about adoption or rejection.

Strategizing and Power

The question can indeed be asked: what are we really doing as we engage in strategizing? What is the essential purpose of manipulating configurational relationships and linkages, of environmental design, of resource choice, allocation, and management? The answer is this: it is simply to take actions that will enable the change maker to so organize power distribution within the system that he can aggregate to himself more power than a competitive change maker where one exists; and yet have enough power left to be able to

neutralize the inertia of the client system. Or it is to so organize the 
social dynamics that each party involved in the change transaction can make 
more satisfying power transactions than it was making before. Particular 
power distributions and power potentials inhere in each social situation; 
and various currencies of power (money, influence, information, resources, 
ideological commitment, coercion) are exchanged. Different currencies 
of power are indeed used by different change makers. In doing so, some 
change makers may spend relatively more energy and make the change process 
educational; other change makers may save energy (at least in the short 
run) but may make the change process somewhat manipulative.¹

Strategies and Values

The preceding should bring us to the realization that strategizing is
indeed a process anchored in values. Different people working from different 
value premises may develop different configurational maps, do different 
linkage typings and may draw lines at different places about the manipulation 
of the task environment or deployment of resources. Again, they may use 
different means to achieve their ends. "Some things are simply not done," 
they might say. They may willingly fail now, to succeed later. Others may 
fail in the long run by succeeding now at any cost. The point is that two 
different value orientations, in the same one situation, would give us two 
different sets of strategies.

It should be clear that the CLER model, while it is an engineering 
model does not prescribe that the change agent should engineer to be manipu-
lative. The model can, of course, be used also by those change agents who

¹For an elaboration of these ideas and of the possibilities of developing 
a "sociophysics," see H. S. Bhola "Power: The Anchor of Stability, the Lever 
of Change," July 1975, 26 pages. Accepted for national distribution through 
ERIC Clearinghouse on Educational Management.
use educational strategies; who want to work with people and not work on people. Such change agents would be candid about goals and open about both means and ends. They would negotiate and educate rather than threaten and manipulate.

On the Need for Being Perceptive

All this talk about ordering, hypothesizing, experiencing and strategizing is useless unless the person engaged in praxis is himself a perceptive individual. To know is one thing, to know about is another. One may even know and yet fail to respond to existential events. A person may know and know about nonverbal language, about games people play and about human communication in general but he may be completely insensitive to what his colleagues are trying to tell him and what effect his behavior is having on them as he goes merrily about dropping bricks on every tender toe around. In other words, some individuals may know a lot about perception theory and research but their own perceptual equipment may not be suitably discriminating to the stimuli it receives.

To be perceptive is to be knowing, observant, sharp, discerning, penetrating, sensitive, sympathetically understanding and insightful at the same time. In other words, to be perceptive one must have both knowledge and self-knowledge, laced with sensitivity and quickness of the mind. Can one develop perceptiveness as a change maker? If we believe in education, and in the training of the institution builder, we must accept the possibility of an "education for perceptiveness." For the institution builder such education must involve considerable knowledge of social and behavioral sciences and the ability to theorize about real behavioral events, without a hardening of the categories setting in. It also means that the institution builder must, as part of his education for perceptiveness, acquire better social skills to
deal with others with honesty and authenticity. More importantly, the institution builder must acquire self-knowledge: clarify his own values, raise his own level of awareness, examine his own motivations and hang ups. Then he can act on the environment and strategize for I-B. Institution building is not foolproof.

**Configurational Relationships:**

*Definitions, Elaborations and Applications*

So far we have talked of a generic grammar of artifactual action; and suggested that I-B, as an instance of developmental action, should be subject to the rules and principles of this grammar. We have ordered the universe of institutional interventions to include three concurrent but coupled processes and shown nine different possible "ordering by objectives" of situations wherein institutional interventions of some sort could be made.

Let us now return to the CLER model, introduced before as a tool for analysis and parsing of change episodes, using our generic grammar. We will deal now with the four variables C, L, E and R, in turn. In each case, we will begin with the necessary definitions and such elaborations of the conceptual structures as may be necessary to ensure understanding. We will then show possible applications of the variable in question in developing strategies for I-B.

**Configurations and Configurational Relationships**

The CLER model identifies four configurations -- Individual, Group, Institution and Culture (or Subculture). Any or all of these four configurations can function as innovators (or initiators) of change or as
adopters of change. Thus sixteen configurational relationships are possible. As the following graphic presentation would indicate, seven of these configurational relationships are related to institutional changes:

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<td>I-G</td>
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<td>CL-I</td>
<td>CL-G</td>
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Figure 3. Sixteen configurational relationships covering all possible innovator-adopter transactions.

While it is possible to think of change taking place within the format of any of the above configurational relationships, it is actualized only at the individual level. That is, molar change (as in chemical reactions) materializes in and through molecular changes. This fact about the dynamics of change must be kept in mind.

Configuration Mapping

We have suggested that each innovation as an entity would generate a particular set of considerations which a change agent must keep in mind. There will be systemic considerations covering both institutional and governance policy issues. Governance policy will, in turn, raise questions about new distributions of power, statuses and economic goods, including educational goods. It will also generate purely instrumental considerations and questions about role design and the social organization for working with the innovation. Thus, for each innovation there will be particular configurational relationships that would get activated (or have the
potential to get activated, among and between individuals, groups, institutional units and subcultures. In other words, each innovation would come with a particular potential for creating system disequilibrium and will be contained within an overlapping system of interferences that would generate recognizable boundaries for the change transaction.

The preceding discussion can be translated into the concept of "configuration mapping" which is defined as the process of identifying configurations, big and small, formal and informal, within and without the boundaries of the configurations directly involved, as innovator(s) and adapter(s) in a change episode; and of presenting, graphically, their relationships in terms of structural bonds, locations in systemic space, hierarchy, and mutual expectations of influence and compliance established by custom, tradition or law. The first task for an institution builder, we suggest, should be to develop a configurational map of the universe in which his planned change intervention will take place. It should be clear that configuration mapping is ordering at the operational level.

The act of configuration mapping should make the following possible for the institution builder:

1. **Identification of the Configurations Involved**: The institution builder should be able to develop a preliminary list of individuals, formal and informal groups, institutional structures and networks, and finally subcultures that may potentially get involved, in some way, in the change episode. This process of identification will involve theoretical knowledge of the typical to be expected and empirical knowledge of the existentially present in a particular setting. Such lists of configurations should be undergoing constant evaluation and review.
2. **Ordering of Configurational Relationships**: The institution builder should also be enabled to develop an ordering of configurational relationships and thereby an ordering of the reality he would be dealing with. This must involve *geometrization* of configurational relationships in terms of boundaries, overlaps, planes, and intersections to obtain a spacial and structural ordering. A time ordering will, similarly, articulate time-chains, phases, and cycles in the change episode.

3. **Focusing on the Innovator System: The Other Half of the Change Transaction**: Often institution builders and other change agents focus on the adopter system and not at all on the innovator system. The innovator system is somehow not seen as entering the interactive process generated by I.B. The operational dynamics of change-making is, thereby, misunderstood. Strategies that might relate to the design of innovator systems and to developing collaborations with technical consultant, get neglected. The physician seldom thinks of healing himself.

4. **Separation of the Technical and the Sociopolitical Tasks**: Configuration mapping should enable the institution builder to separate the purely technical tasks of inventing roles, making blueprints and developing organizational designs from the sociopolitical tasks of implementation and incorporation within institutional settings. At the same time, the process of separating the technical from the sociopolitical should make the institution builder sensitive to the interactions between these two categories of tasks.

5. **Developing Appropriate Levels of Response**: Not infrequently, change makers have failed to be cognizant of either the size or of the structure of the enterprise of change they seek to administer. They have done small things and expected large consequences. They have wished to achieve
important results within large and significant structures of a society but have failed to develop appropriate levels of response demanded by the situation. Configuration mapping should enable the institution builder to become sensitive to the "limits of possibilities" in a particular situation and to develop appropriate levels of response if commitments and resources for undertaking those tasks exist.

6. Promoting Pragmatic Orientation to Strategizing: A configurational map showing important individuals, formal and informal groups, institutional structures and networks, and related subcultures, at the same time, should make it possible for an institution builder to develop a pragmatic approach to strategizing. He should be able to see the absurdity of making any a priori commitments to psychological or sociological approaches or to suggesting rational or purely human solutions. He may find it necessary to intervene in different configurations, at different levels, at different times or use different strategies at the same time.

Some Configurations-Related Strategies for Institution Building

Planning and management of change may often involve a strategy that requires the synergetic manipulation of all the four factors in CLER model—configurational relationships, linkages, environment, and resources. Or it may involve a strategy that requires the manipulation of only one of the four variables. Sometimes, that one variable may indeed be the only variable to which a change agent has manipulative access in that particular context.

Configurations-related strategies are institution-builder's strategies par excellence. An institution builder, while he must deal with linkages, environments, and resources, is primarily in the business of designing
functional configurations (roles, teams, departmental units, sections, divisions) within his institution; and launching his institution (itself a configuration) without into the larger network of configurations (interest groups, organizations, institutional networks) in the society.

It should be evident why the organizational elite use configurations-related strategies so frequently. Only the organizational elite have the authority to invent new roles, design new task forces or decision-making units and order new configurations of role relationships. This is not to say, however, that configurations-related strategies are available only to insiders (they are available to outsiders as well); or are available to insiders only at the top of the organizational hierarchy (they are available also to those at the lower rungs of the organizational ladder). A trade union organizer, for example, coming to an institution to unionize employees of the institution would be an instance of an outsider introducing a new configuration into the life of an organization. A discontented worker bringing together an informal group of like-minded people to defend, to negotiate or to sabotage would be an insider, without formal authority, using configurations-related strategies.

Configurations-related strategies are often used by the organizational elite within organizations but these are not always wisely used because the so-called specialists themselves do not always know much about functional role and rule designs, about reconciling ability with authority and specialization with cooperation. We talk of new organizational patterns but they turn out to be the same basic pyramids studded with a few decorations such as committees, task forces, adhocracies and the like. As practitioners we are often organizationally illiterate and create configurations that are both conventional and dysfunctional.
Some Overall Configurations-Related Strategies

In our discussion of institutional approaches to modernization and change, we made an analytical distinction between institutional analysis, institution building and organizational design. Later, we suggested that when engaged in the processes of strategizing for I-B, it would not always be possible to maintain those analytical distinctions at the operational level. Many I-B strategies will have to be thought of along with the strategies for institutional analysis and organizational design, and some will be dictated directly by the other two analytically distinguishable but coupled processes. In the following, while we have kept a focus on I-B, the strategies suggested often spillover into the two areas of institutional analysis and organizational design.

In developing overall configurations-related strategies, the basic objective of strategizing lies in creating organizations that are strong and responsive; are kept guarded, in their infancy, from volatile publics and competitive organizations; can relate functionally with institutional networks that would provide budgetary and statutory support; and, ultimately, can make client groups dependent upon their services.

Some specific overall strategies related to configurational relationships may be the following:

(i) Building coalitions and collaborations with and between outside configurations to create more generalized commitments for change; and, at the same time, neutralizing competition from competitive configurations or creating adjustments with them based on a sharing of territories and clients. When choices are available, coalitions should be built with those institutions that have significant resources available to them to back up their commitments.

(ii) Building new organizational configurations such as task forces, coordination and advisory committees and other adhocratic forms to manipulate
spatial and structural ordering of the innovator and the adopter systems.

(iii) Activating informal groups where none exist, creating new reference groups for participants in the organization and formalizing existing informal groupings to give them structure and continuity.

(iv) Expanding the decision-making network (for example, by establishing a National Advisory Board of Education) so that policy making does not become too personalized and erratic but comes into the public view. This is especially important in societies of comparative instability in political structures with frequent changes in their bureaucracies.

Strategies at the Individual Level

The essence of configurations-related strategies at the individual level is to help individuals reconcile personal goals with institutional goals: help each individual relate with change positively and without having to bear impossible personal costs; allowing every individual to make satisfying power transactions within the organization but not letting one individual acquire total power on the life of the institution.

Specifically, the following individual level strategies may be appropriate:

(i) Avoiding to create unnecessary insecurities about jobs already existing within an organizational setting when rationalization of jobs is part of I-B.

(ii) Not discrediting everything in an organization's past thereby contributing to the loss of a sense of personal worth among present role incumbents who must often identify positively with their past.

(iii) Removing ambiguity of roles; and, for each individual, articulating the social significance of his role in relation to the ultimate goals of the organization.
(iv) Assisting some in getting reallocated, retraining others for new roles, and discovering new talent. Demonstrating competent behavior and assisting different individuals to engage in competent behavior. This should lead to the development of new identities among individuals in the institution building setting. This should lead also to the internalization of nonmaterial reward systems and to linkages with new reference groups that are professionally-rooted.

(v) Not letting one individual dominate the total organization.

Strategies at the Group Level

The essence of configurations-related strategies at the group level should be to formalize informal groups where necessary for continuity and direction; to create new and overlapping formal groups to bridge communication gaps and to generate new commitments; and to activate informal groups to lubricate the system if there has been a hardening of the system's arteries. Specifically, it would mean:

(i) Promoting informal groups to meet the personal needs of individuals within the organization. However, such groups should not be allowed to develop ethnic, racial, or caste orientations.

(ii) Promoting new reference group identifications enabling, for example, development workers in a country to identify with regional, national and international associations of developers, or enabling psychologists to relate with the national and international community of psychologists, etc.

(iii) Creating task forces and other formal decision making groups to promote constitutional (rather than authoritarian) decision making. This should improve the quality of decisions and, in the process, train more than one leader, thereby avoiding leadership vacua during the
institutionalization of an organization.

Strategies at the Institutional Level

The essence of configurations-related strategies at the institutional level must be to create appropriate institutional mechanisms, to locate them at the right level and place in the hierarchy, to demonstrate that they work, to design them so that they can be learning systems that will develop organizational intelligence over time, and to increase the probability that they will become institutionalized.

The following strategies, appropriate for interventions within institutional structures, can be suggested:

(i) Handling in smaller phases those big I-B jobs that might involve the creation of new organizational identities for existing institutions.

(ii) Avoiding reinstitutionalizing of what is already institutionalized.

(iii) Within institutions yet in the "founder generation," engaging self-consciously in rule making behavior and applying systematically institutional rather than personal criteria in decision making.

(iv) Bypassing institutional networks which might strangulate a new organization. For example, to bypass the stagnant bureaucracy of an existing ministry of education, an autonomous bureau of textbook research and publications may be created. Or the analogy of "a city within a city" may be used to create an organization within an organization. The new organization

may have different leadership, new rules of operation, new norms of professional behavior, its own pool of resources, using merely the goodwill of the old organization and the use of its infra-structure.

(v) In the context of technical assistance, using the "turnkey" concept of organizational design and institution building, foreign experts, completely on their own, may make an organization operational and then hand it over completely to the local elite.

(vi) Creating simulations to test the effectiveness of interfaces between departments and divisions of an organization and making changes where necessary.

### Strategies at the Cultural/Subcultural Level

The essence of configurations-related strategies at the cultural level must involve making suitable differentiations between the cultural settings of I-B efforts; opening up an institution to one particular subculture within a culture rather than to another; and making interventions to change the culture of an organization itself. For instance, the mass culture and the elite subcultures within the larger culture must often be distinguished from each other for successful I-B. Secondary schools may be new institutions to a part of the mass culture, but only an R&D Center might be new to the elite subculture of educators. Again, the mass culture, generally, may be disinterested in the R&D Center which may have meanings only for a group of organizational elite within the policy arena of education in a society. Suitable articulations may thus have to be created between institutions and cultures.

Specifically, the following strategies may be used:

1. Avoiding borrowing wholesale job structures and role designations from one culture to be installed in another.
(ii) Paying attention to the special status content of roles peculiar to each culture.

(iii) Designing systems of incentives and rewards with due attention to existing cultural patterns.

(iv) Relating each particular institutional strategy to the subculture that would be concerned and not respond necessarily to some conception of the whole culture.

(v) Using organization development and sensitivity training, where appropriate, to change the culture of the organization.

Linkages: Definitions, Elaborations and Applications in Strategizing

Linkage may be defined as the stance between the innovator and the adopter that will enable information or influence to flow if applied. In other words, linkages (or linkage networks) are the sociological equivalents of electric circuits through which current will flow if the plug is actually thrown. Linkages are thus the social circuitry through which messages may be sent by writing, talking, singing, shouting, threatening, arguing, persuading, and coercing.

Two types of linkages may be involved in a change transaction between an innovator and an adopter system. Linkages within and linkages between. Linkages within should point to the need for making linkages effective within the innovator system and within the adopter system. Linkages between should point to the need for building suitable interfaces and communication channels between the innovator and the adopter system.

Again, linkages as social circuitry may be of two kinds: formal linkages and volitional linkages. Formal linkages are those that are established within formal social settings to handle information for operational purposes. Formal
linkages are role-related and are often codified as rules. Volitional linkages are those established by individuals or groups through their own volitions. They are, what we call, informal linkages and are created to handle information across roles, hierarchies and systems.

Linkage Typing

Linkage typing may be defined as the process of presenting graphically (a) linkages existing between and within the innovator and the adopter configurations; (b) linkages which may be dormant and should be energized; (c) linkages that could be created anew; and (d) in some cases, linkages that may have to be severed to isolate resistance to innovation and change. The process of linkage typing should often be carried out concurrently with the process of configuration-mapping.

Linkages and I-B

Linkage management would always be an important part of I-B. In some situations, and within particular I-B episodes, linkages may be the only variable a change maker could manipulate.

Linkages within an innovator system may, for instance, be in disarray. The literature on, what is called, Development Support Communication (DSC)¹ points to the fact that most development extension effort has failed for the simple reason that the federal government (or another central authority concerned with a program) failed to communicate with its own army of civil servants. This point is, again, brought home in a report on the communication patterns (or rather the lack of them) within the Bolivian

system of public instruction\(^1\) that showed how the absence of well
established linkages within the system made the delivery of services to
client groups improbable, if not impossible. The creation of linkages
may constitute the change strategy in such I-B situations.

In other instances, the creation of linkage networks within the
adopter system may constitute the strategy. In agricultural extension,
health extension, and family planning this strategy is often needed so
that the impact of the extension worker could be multiplied both in terms
of the flow of information and reinforcements supplied by members of the
group to each other.

The need for creating linkages between the innovator system and the
real client system is not always as obvious to the naive change maker as
it might appear justified at first sight. There are too many examples of
folders being printed for illiterate communities, posters put in the wrong
places, agricultural extension provided to landless labor and school girls
lectured on family planning when the audience should have been their mothers.

An institution builder cannot escape using linkages-related strategies.
Inside the organization he would be concerned with creating valid information
and making both information and attitudes part of the feedback loops going
back to the centers of decision making. In relation to individuals, groups,
institutions and communities outside, the institution builder would again be
engaged in linkages-related strategies--sometimes articulating and strengthening
linkages, sometimes doing the opposite by severing linkages that may be
embarrassing and might give the new organization a kiss of death.

\(^1\)Max Mehlis and Rex Rorex (with a foreword by H. S. Bhoia), Communication
and Information Needs for Effective Administration of the Bolivian System of
Public Instruction. La Paz, Bolivia: San Jose State University Foundation, 1974.
Some Linkages-Related Strategies
for Institution Building

When effective, linkages within the institution clearly should serve
(a) the operational needs of command and compliance, and (b) the human needs
of the organization as community. Workers at all the different levels of an
organization should receive information on the purposes of the organization
and on the rationale behind more important decisions which will promote a
sense of community among the workers. This information diffusion should be
undertaken both formally and informally. While heavy information loads should
be avoided, it should be remembered that a lack of information would surely
lead to rumor-mongering. Structures should be created within which the upper
level organizational elite meet the lower level workers within the organization
and learn to take notice of each other. This will also, inevitably, promote
some useful informal linkages. Coffee lounges and "suggestion boxes" can
also be used to good effect. Important inter-role and inter-level linkages
may be codified; however, over-codification should be avoided. Filing systems
should be appropriately designed to record the process of decision making in
respect of important decisions. This will make it possible to create and use
organizational intelligence.

In the case of linkages between one institution and others in the already
existing institutional network, and between an institution and its client
groups; the purpose should be to build support for the new institution and
promote use of its services by client groups. This should suggest the
importance of what has come to be labelled as "Development Support Communication."
In the case of linkages between institutions, informal linkages are also
important. However, the need to use authorized spokesmen for formal inter-
institutional linkages should be obvious.
Linkage management and communication within groups and institutions is an area that has generated considerable research interest as also a full-fledged technology called organization development that a practitioner could put to use. The following would be found to be a comprehensive and useful source:


**Environment: Definitions, Elaborations and Applications in Strategizing**

Within the conceptual structure of the CLER model, Environment is defined as the outer configuration beginning immediately outside of the boundaries of the change transaction taking place between the innovator and the adopter systems. Environment comprises the physical, social, and intellectual conditions and forces that continuously impinge on the innovator system and the adopter system.

Environments may be supportive, neutral or inhibiting.

**Supportive Environments:** Supportive environments encourage initiators and innovators to support innovations and adopters to accept them. The Russian Sputnik, for instance, made the American environment highly supportive of innovations in education. The environment almost became causal of change within the educational systems.

**Neutral Environment:** Neutral environments do not directly contribute to innovation diffusion one way or the other. They exist but do not exert any presses and thus play no direct or a catalytic role in innovation diffusion.
Inhibiting Environment: Inhibiting environments do not sanction innovations and make target systems unresponsive to initiators' efforts at diffusion. Pressey's teaching machine, for example, in the inhibiting environment of the depression years in the U.S.A. did not get adopted within the school systems. The chart on the next page should exemplify how the process of I-B could be influenced by the environment in which it takes place.

It has been suggested that while we are all alive today at the same time, we are not all contemporaries. Institution builders comprising an innovator system, especially within the context of technical assistance, may be open to one environment while the target system may be open to another environment as follows:

![Diagram of Environment (1) and Environment (2) with Innovator System and Adopter System]

Figure 1. Innovator system and adopter system responding to two different environments.

Environment and I-B

To a change agent, at times, environment may be the only variable available for manipulation. There are indeed change agents who suggest that instead of trying to change the cognitions or attitudes of people—often a difficult, if not sometimes an impossible, task— one should change the environment to which they will respond. Instead of trying to educate people to slow down on sharp curves on highways, one should build that portion of the highway with the appropriate gradient. They also suggest that strategies involving environmental manipulation are applicable also in social settings both at the individual and structural levels.
Figure 5. An exemplification of the influence of social environment on the introduction of organizations within a social system.

<table>
<thead>
<tr>
<th>Country/1976</th>
<th>Environment Supportive of:</th>
<th>Environment Neutral Toward:</th>
<th>Environment Inhibitive of:</th>
</tr>
</thead>
<tbody>
<tr>
<td>India</td>
<td>An Engineering Research Institute for Import Substitution</td>
<td>A Medical Center for the Study of Water-Borne Diseases</td>
<td>&quot;Hindustan for Hindus Only&quot; Association</td>
</tr>
<tr>
<td>Tanzania</td>
<td>An Institute of Community Development and Cooperation</td>
<td>A Swedish-Tanzanian Friendship Library for Adults</td>
<td>A Center for the Promotion of Free Enterprise</td>
</tr>
<tr>
<td>Bolivia</td>
<td>A Center for the Development of Natural Resources</td>
<td>A National Institute of Public Administration</td>
<td>&quot;Bolivia for the Indians&quot; Block</td>
</tr>
<tr>
<td>U.S.A.</td>
<td>An Institute for the Development of Anti-Pollution Technology</td>
<td>A Bertrand Russell Memorial Library</td>
<td>A National Center for the Study of Black Genetics</td>
</tr>
</tbody>
</table>
Some Environment-Related Strategies
for Institution Building

Institution builders have to create institutions that are responsive to the environment but this response has to include a dialectic between the old and the new, between the existent and the innovative. That is, institutions have to restructure the environment as they respond to it. They have to fashion new norms and needs and create new functions as they respond to existing norms, fulfill present needs and perform present functions.

Environment-related strategies may fall into two general categories: (1) institution builders may seek to isolate their projects completely from the fast changing and mercurial political environments surrounding them or may interact selectively with such environments; and (2) institution builders may deliberately open adopter systems to new, more supportive symbolic environments.

Institution builders must also project in their I-B plans appropriate organizational designs. Organizational roles and organizational rules for relating those roles into structures are not objective, culture-free processes. In the process of transferring to a new environment, roles will get rounded off to suit the new cultural terrain; and rules will get stretched or a little bit truncated as they take to the new environment. While the institution builder should take these facts into account, he must also guard against the institution losing its integrity in the process of coping with and surviving in the environment.

Specifically, an institution builder may use the following environment-related strategies:
(i) Avoiding pre-mature public interest, public scrutiny and possible public attack. The J-B project may do so by presenting a technical-specialized image and by generally keeping a low profile.

(ii) Relating selectively to one particular environment rather than to another. For example, the environment of training of personnel could be looked at much more carefully than has been done so far by institution builders. If the institution is to help build professional self-concepts for the adopter system personnel, they may be brought for training to a prestigious university in the donor country. If the project tasks are operationally defined and training is skills-oriented, training may be best provided within the task environment itself. In some cases, the training may be provided partly in one environment and partly in the other providing for both legitimization and transfer.

Members of an organization could be opened up to new environments through well-planned professional travel which may bring the organizational elite of the adopter system in touch with new environments and these connections may be sustained through participation in particular reference groups and professional associations. For example, by providing support to members of the organization to buy memberships in professional societies in the country and abroad, an institution builder may link them to new reference groups and new intellectual presses, not available in the more immediate environment.

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Resources: Definitions, Elaborations and Applications in Strategizing

The CLER model distinguishes between six different types of resources arranged below according to the mnemonic device—CDWPIT:

- Conceptual resources
- Influence resources
- Material resources
- Personnel resources
- Institutional resources, and
- Time resources.

Resources are needed both by the innovator and the adopter systems. Innovator systems need resources for promoting innovations and the adopter systems need resources for incorporating innovations and maintaining them once they have been adopted.

Adopters may be seen to engage in a cost/return calculus in making adoption decisions as shown below:

<table>
<thead>
<tr>
<th>Visible</th>
<th>Invisible</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>Low</td>
</tr>
<tr>
<td>High</td>
<td>Ambiguous</td>
</tr>
<tr>
<td>Low</td>
<td>Rejection</td>
</tr>
</tbody>
</table>

Figure 6. Cost-return context of innovation adoption.
Resources and I-B

Resource-related strategies are many and quite often used by institution builders. One often hears of money being thrown at problems; equally often, of great social visions being starved for lack of material resources. In the area of institution building a change maker, especially one working in an intercultural context, may find himself using resource-related strategies more often than others. Often resources may buy for the institution builder opportunities for using other strategies related to configurations, linkages or environments.

There are, of course, many more resource-related strategies. Institution builders may build conceptual resources of the adopter system by undertaking sizable programs of in-service training for counterpart staff in the host country. They may use influence strategies to browbeat resistance within and without or they may use future adopters as participants in the definition of the change projects thereby building within them prior commitments to adoption. They may provide loans and grants and send trained expatriate personnel. They may provide institutional support from an existing, well-healed, and well-functioning institution to the new institution as the new institution goes through the process of putting roots in the ground. The provision of mail and telephone services and assistance with renting furniture and apartments by the local USAID or UNDP office to the newly arrived project team would be examples of such institutional support.

Management of time itself would be a useful strategy. The manipulation of time by simulation should also be considered a resource-related strategy.
Some Resource-Related Strategies for Institution Building

The overall purposes of resource-related strategies must be (1) to ensure continuity of resources, (2) to expand resource availability, and (3) to budget and manage resources that do become available. The management of resources must be considered in its two aspects of (a) technical management, and (b) sociological management.

Resource Continuity

The problems of resource continuity are significant in terms of material and personnel resources. Institution builders must work to ensure the continuity of material resources for an organization to survive and have the chance to become institutionalized. In the university setting in the United States, the continuity of material resources may be discussed in terms of hard versus soft money. In some developing countries, the problem may be posed in terms of appropriations from the plan budget versus the nonplan budget—plan budget being the more volatile part of the budget which may or may not be available during the next plan period or even the next year.

In the context of technical assistance the same problem may be discussed in terms of grants and matching funds. Typically, institution builders would want their project budget to come from hard money (not soft money), from the regular, nonplan budget (not the plan budget for pilot projects). It should be pointed out, however, that the regular budget source may bring with it regular bookkeeping and drawing and disbursement procedures. An innovative organization trying to promote new patterns of responsibility and decision making may find these traditional secretarial codes highly restrictive.

Endowment as a strategy for ensuring the continuity of material resources is an excellent strategy but is hardly ever used as part of technical assistance
in the Third World. The strategy is worth trying both with voluntary and public institutions. On the other hand, institution builders may deliberately subject an institution to the forces of the marketplace by forcing it to seek all or part of the funds necessary for survival, periodically, on the basis of services rendered to client groups. This may not promote continuity of resources but may promote institutionalization of self-renewal and responsiveness within the organization.

Continuity of leadership and staff within newly established organizations should be an important consideration for institution builders. Good leaders are in great demand and are likely to move to other responsibilities oftener than others. On the other hand, the deadwood within organizations stays forever. The question then really is of ensuring the continuity of good leadership and good staff. Two general sets of strategies are possible. One set of strategies would be structural. These may involve long-term, legally enforceable contracts between employers and employees. Collaborative decisions may also be made in regard to appointments and transfers of government officials across various departments of the government. The other set of strategies may involve psychological contracts and psychological rewards for those organizational elite that seem indispensable to the new organization.

**Multiplication of Resources**

While institution builders may seek to claim larger budgets from the public or private bodies sponsoring them, other strategies for multiplying resources are also available. For instance, cognitive resources of an organization may be multiplied by hiring consultants or by establishing advisory committees on which professional people from the community could serve. The local or the regional university could be invited to conduct faculty and student research on topics relevant to the needs of the organization and thereby
contribute to the cognitive resources of the institution building project. Use of volunteers is a typical strategy for multiplication of personnel resources. Unfortunately, in many countries of the Third World, government rules may inhibit use of volunteers or acceptance of community gifts. Change in these rules may be part of the innovation package in such institution building situations.

Multiplication of institutional resources by using the institutional resources of other institutions in the network is often a neglected area. For a new organization, sharing of duplication, mailing, and transportation services with an established institution would be an obvious possibility. In the technical assistance setting, sharing of the commissary, of housing facilities, and furniture rentals, cable and xerographing services may make most important contributions, howsoever trivial these may look to be at first sight.

Coalitions with organizations in the area doing similar work should be made (a) for defining territorial interests, on the one hand; and, on the other (b) for pooling resources of different types. It should be understood that sharing resources creates shared commitments. This should be an important consideration for institution builders.

Management of Resources

Institution builders must pay due attention to the management of resources in both aspects of (a) technical management, and (b) sociological management. Institution builders must deal with the technicalities of budget making. It is not within the scope of this paper to discuss the concept of program budgeting as distinguished from annual or biennial fiscal budgets, but institution builders on large-sized and long-term projects must study PPHS approaches.
All program items that will need to be implemented, must be budgeted for. For example, if evaluation is part of the plan, it must be supported with funds, and not expected to be piggybacked on some other part of the program. Funds for unforeseen contingencies should be provided for in the budget, and reappropriations between budget heads should be comparatively easy. Program Evaluation and Review Technique (PERT) is another technical tool of management that institution builders should be familiar with.

The Sociology of Resource Use

An important challenge for institution builders would be to accommodate the sociology of resource use in their overall management of resources. An organization, for instance, may not use cognitive resources, freely available within its immediate environment, because it might be seen as an admission of ignorance on the part of the organizational elite. On the other hand, the provision of a certain number of man-months for consultants in the budget may force the organizational elite to bring in consultants even when they are unable to use them.

The management of influence, again, would present an important challenge to institution builders. Avoidance of formal endorsements of political operators should be an obvious strategy. Within systems of institutionalized instability, where regimes keep on changing frequently, too articulated an association with any group of persons may have to be avoided.

In connection with the management of material resources two important considerations may be stated: (a) the concept of toleration of innovation; and (b) the hypothesis about the nationality of money. Adopter systems may tolerate the introduction of an innovation if they see the incidence of costs of an innovation to someone other than themselves. In the international context,
institution builders may find that monies have nationalities. American money received under a technical assistance arrangement may become subject to different criteria of expenditure than money from the local government treasury. Thus money available under multilateral assistance from UN-affiliated agencies may be treated better than bi-lateral assistance since the former may provide the recipient with some "donor" feeling. The organizational elite, at least, are aware of the fact that all member states, howsoever poor, make contributions to the UN and its affiliated agencies and contribute to this donor feeling. One strategy available to donor nations may thus be to pay assistance into a central source and have the various projects draw their funding from the central budget. This will, undoubtedly, generate a different set of problems.

Within economies of scarcities, a foreign assistance project may create a miniature goldrush. Provision of tools and equipment such as landrovers, duplicating machines, electric typewriters, radios and tape-recorders may create effects and uses very different from those intended.

Institution builders working in the Third World under arrangements of technical assistance may discover that international projects with all their visibility and prestige may attract not the most competent, but the most influential. Such persons, if found incompetent, may be the hardest to dislodge for the same reason. Again, while material resources may be available for staff recruitment, no suitable personnel may be available in the job market.

In building organizational coalitions, institution builders must keep in mind the personnel resources of the organization with which they are seeking collaboration. A ministry of education, for example, may have thousands of college graduates working for it as teachers and principals, while a ministry of rural development may have no more than a hundred such personnel working for them.
Training of Personnel

One of the most widely used personnel-related strategies is personnel training. Institution builders should recognize the fact that selection of candidates for "foreign training" provides the organizational elite with an opportunity for the distribution of patronage, and thus invites politics of selection. Foreign training often prepares the trainee for a better-paid job elsewhere! The same elite who first sent him for training abroad, now let him go to take a better paying job in another organization. Training strategies may be designed so as to provide most training on the job in the host country. Such training should be provided to a large number of people. Where training must be provided abroad, legally-enforceable long-term contracts must be developed and training should, generally, not lead to a degree.

Time As Resource

Finally, institution builders must develop proper relationships with time. Adopters must be provided appropriate response times to new things and changed circumstances -- to the new hybrid corn, to the telephone, to the gasoline shortages.

Synergy and Probability

We have treated C, L, E, and R separately in our discussion above. We have also suggested different strategies related to C, L, E, or R. In the real world of decision making and strategizing, the four factors in the CLER model will be seen in at-once-ness, and strategies will have to be integrated synergetically.

The probabilistic nature of the institution building process must also be understood. Use of the CLER model in developing various strategies will
only increase the probability that a new organization launched into the institutional space within a society will find accommodation and adjustment within the new institutional network. The probabilistic nature of the institution building process also suggests some important considerations for evaluating institution building projects and efforts. These will be referred to in the following section only briefly.

Evaluating Institutionality

The interest in institution building has led naturally to the concept of institutionality and the evaluation of institutionality. Let us suggest that the present institution building perspective in talking of institutionality has created a conceptual entity but has failed to operationalize it.

Institutionality

The literature of institution building suggests that an organization should be considered to have acquired institutionality when it can be asserted that:

at least certain relationships and action patterns incorporated in the organization are normative both within the organization and for other social units, and that some support and complementarity in the environment has been attained.¹

To evaluate institutionality, this definition must be operationalized. Hanson who is considered by some to have done the best work in operationalizing the concept of institutionality has suggested the following criteria

of institutionality: (1) the use made by publics of organizational outputs and services, (2) verbal approval from these publics, (3) survival and growth of the organization, (4) support from other organizations, (5) autonomy, and (6) spread of innovative norms to others within the environment.\(^1\)

While these statements do unpack the concept of institutionality they don't really operationalize it. There are several problems. What constitutes acceptable use of organizational outputs and services? What are legitimate users of outputs? What frequency of verbal approval through what channels is a sign of institutionality? What constitutes support? What is the yardstick of autonomy? What constitutes satisfactory spread of norms? What institutions at what level are good candidates to receive this spread effect? In addition to problems of criterion-referencing, there are two most serious problems with any evaluation of institutionality relating to (1) Time, and (2) Causality.

**Time**

The question is: How much time do you give to an institution to acquire institutionality? Is the institutionality test a speed test or a power test? Do you measure institutionality after a year, or two years, or five, or ten?

**Causality**

The second question is even more intractable. How could we assume that the particular institution being evaluated for institutionality is the sole and direct source of the norms which this institution now shares with other institutions? Isn't it possible to assume that a set of other institutions

\(^1\)Source Book, page 281.
acquired the norms in question from a source other than the institution being evaluated and in fact reinforced the normative structure of the institution being evaluated rather than being influenced by it.

**Institutionality Potential**

In the circumstances, it might be useful to think of measuring the "institutionality potential" of an institution at a particular time rather than evaluating institutionality as such. Such an approach makes no assumptions about causality, talks in terms of probabilities and releases us from the time-bind. An institutionality potential profile (IPP) could be developed that could allow assignment of weights to various items on the profile for the probability of an institution acquiring institutionality to be computed. Such a profile could include items related to the goodness of institutional analysis, appropriateness of organizational design and the resulting organizational capacity, and, finally, institution building possibilities.

**Concluding Remarks**

In this paper, we have suggested that institutional approaches to innovation and change include in fact three different processes of intervention, namely: (a) institutional analysis, (b) organizational design, and (c) institution building. We have then introduced the concept of the grammar of artifactual action involving, again, three interrelated processes of (i) ordering/relating, (ii) typifying/hypothesizing, and (iii) experiencing/correcting. We have suggested that this generic grammar could be used in planning and strategizing for all the three categories of institutional interventions. The Configurational Theory of Innovation Diffusion (or the CLER Model) has been introduced as the tool for handling detailed analysis and
parsing of the change dynamics under this generic grammar. The four variables of the CLER model—configurational relationships, linkages, environment and resources—have been used, in turn, to develop general strategies for institution building. Similar applications of the CLER model to institutional analysis and organizational design will be attempted later as part of this series of papers.