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Enlightenment and Communication¹

by

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December 1965

ENLIGHTENMENT AND COMMUNICATION

by Daniel Lerner

The multivariate, multivariate framework in which we have been invited to compose our thoughts on social change presents a deep challenge. The challenge is deep because it requires nothing less than a multivariate, multivariate response. Every student of cononical Lasswell will be alert to the complexities of handling a particular value variable within a fully multivariate matrix, complexities that are rather amplified than diminished when the matrix is taken to represent an interactive system each of whose components figures simultaneously as input and output. So, while it is encouraging to read in the Lasswell-Holmberg integrative paper that "Input-output analysis among the sectors will reveal the ratios of interchange among them," a reader with an eye on theoretically-based research designs is likely to sigh, "C'est la vie!" By this he will mean, I presume, that it is worth complicating his research to make it yield a fuller account of reality.

Complexity is compounded when one considers, as I have been asked to do, the value variable of enlightenment. According to the framework paper: "The preferred model of enlightenment prescribes criteria for the content of communication, characterizing the degree to which community members are exposed to (or have access to) intelligible, comprehensive and realistic statements about past or future events". This puts a special burden on communication. For, while all "value events are defined as interactions", any such interaction "can be summarized as a sequence of communication and collaboration". From the value variable of enlightenment, then, we are to derive prescriptive criteria for communication content as well as descriptive criteria for the communica-

tion sequence in all value interactions.

This is a very tall order. While I do not despair of its ever being filled, the requirements exceed my own present capacity. We can make a start, in any case, by sketching some of the theoretical conditions that eventually must be satisfied in terms of the historical conditions that now prevail in the world arena. In this sketch we shall focus on enlightenment as the communication of information that affects the preference models of peoples in the modernizing most-of-the-world. We choose this emphasis partly to avoid excessive intrusion into Professor Stein's discussion of skills, which are construed as the operational expression of enlightenment via income-producing occupations and professions. While the shaping-and-sharing functions interact within as well as between all value sectors, an appropriate distance from the specialized skill-functions may be maintained if we concentrate our attention here on enlightenment as the operational expression of information via attitudes and opinions - and, more particularly, of those attitudes that convey identifications, expectations and demands.

So construed, enlightenment orients our attention to the dynamics and distribution of public opinion. Among the principal conditions of the current world arena, however, is one that enjoins excessive arbitrariness in differentiating dynamics from distribution - even for reasons of expository convenience. This condition is the emergence of a world communication network, which introduces into the communication of information a global factor not previously present on an operational basis. Ritchie Calder, writing in the December Bulletin of The Atomic Scientists, puts the matter in a sentence: "I have been in most parts of the world in recent years and there is no place where I have been where the awareness of a new world has not penetrated".

Professor Calder is referring primarily to science and technology, where the

differentiation between advancing new information and distributing extant information might most readily be assumed. But, when such an assumption is allowed to consign the dynamics of new information to developed countries and the distribution of extant information to developing countries, then it becomes empirically erroneous and theoretically misleading. For modernization, in today's world, often seeks to distribute the newest information through its communication network - and sometimes succeeds. In the Geneva laboratories of CERN, where scientists from a score of nations including several that are developing work together on theoretical problems of high-energy nuclear physics, a level of pure science has been attained that can be matched - I am told by competent judges - only at Brookhaven in the U.S. and Dubna in the U.S.S.R. At Ciudad Bolivar, in the southern jungles of Venezuela, I watched the operation of a steel mill that - again, in the judgment of competent commentators - can hardly be matched in either the U.S. or the U.S.S.R.

I do not wish to overstate the "leapfrogging effect" in rapidly-developing societies. There is sufficient basis, in the literature of economic development, to question both its frequency and its amplitude. Our concern is rather with the prevalence, in the developing most-of-the-world, of preference models which orient popular aspirations toward leapfrogging as a goal. Since these preference models arise in the enlightenment sector of society, they are a problem appropriate for our consideration here. Since these preferences usually lead to outcomes that are inadequately frequent, ample, or durable - thereby reflecting a basic fault in the communication of information that shapes and distributes such preferences - they are indeed a primary concern for this paper.

The Middle East As An Instance

While studying the communication process in the Middle East, a decade ago, I was first struck by the radical new turn that appeared quite generally in the enlightenment

operations of this diverse developing area. The "turn" was radical in that it involved the transfer of power to types of people who had never before made decisions that mattered in this region habituated overlong centuries to central, hierarchic, authoritarian rule. It was new in that the transfer of power was accomplished largely by the use of a new technology of communication that had not been available to these peoples earlier in their long history. It was general in that the transfer of power occurred throughout the diverse nations of the Middle East.

To wit: In the stunning Turkish election of 1950, the party of Ataturk was turned out of power by the first honest election in a genuine two-party system under the rule of near-universal suffrage. In 1951, Mossadegh governed Iran, after having obliged the Shah to emigrate and his tame Majlis to transfer compliance, by radio - this in a country that had known only monarchic rule since pre-Biblical times. In 1952, Naguib governed Egypt - after having exiled King Farouk, disintegrated his tame Wafd party, and realigned the oldest bureaucracy in recorded history. Such radical new changes, generalized throughout the Middle East and other regions of the world, gave rise to the hypothesis of a "revolution of rising expectations".

Yet, within a few years, these radical leaps forward turned out to be inadequate in amplitude and durability (despite their frequency). In Turkey: the military took over; they hanged Menderes and fractured his populist party; but they have not yet succeeded in creating anything more expectation-rewarding than an uneasy (and probably unendurable) party coalition. In Egypt: the military took over; they placed their own commander Naguib under house arrest (where he has remained in silence for over a decade) and installed young Colonel Nasser in supreme power; but the New Egypt looks today, after thirteen years, like a country that has multiplied its problems faster than its solutions.

The "revolution of rising expectations" has not yet, in the Middle East, found its appropriate quotient of satisfactions. The main reason for this may be the excessive implantation among these peoples, by their new enlightenment institutions (mass media), of demands to consume that far outrun the capacity of their extant socioeconomic institutions to produce. Their "preference models" derive from long-term Western achievements that exceed by far the short-term resources of these poor, and relatively impoverishing, countries. The major form of rising frustrations has been excessive aspiration - the expectation that one could emulate, hopefully "overtake and surpass", the West. This has led virtually all the emerging lands - whether designated as new nations or developing areas - to recast their self-imagery in the general terms of "modernization" rather than the less global perspectives of their previous colonizers. The modern world has acquiesced in this unprecedented expansion of aspirations

Modernization, then, is the unifying term in contemporary thinking about social change in the developing lands. The term is imposed by recent history. The passing of empires annulled such terms as Anglicization and Gallicization. Subsequently one spoke of Europeanization, to denote the common elements underlying French and British influence in their former domains. More recently, following a century of educational and missionary activity, Americanization became a specific force as a result of which the common stimuli of the Atlantic civilization came to be called Westernization. Since World War II, the continuing search for new ways has been coupled with official repudiation of the Western aegis. Soviet and other modernizing models, as illustrated by Japan, have become visible. Any label that today localizes the modernization process is bound to be considered parochial. For the developing people more than ever want the modern package, but reject the label "Made in U.S.A." (or, for that matter, "Made in U.S.S.R."). Hence we speak, nowadays, of modernization.

Whether from East or West, modernization poses the same basic challenge - the infusion of "a rationalist and positivist spirit" against which, many scholars seem agreed, traditional society is "absolutely defenseless". The phasing and modality of the process have changed, however, in the past decade. Where Europeanization once penetrated only the upper level of traditional society, affecting mainly leisure-class fashions, modernization today diffuses enlightenment among a wider population and touches public institutions as well as private aspirations with its disquieting "positivist spirit". Central to this change is the shift in modes of communicating ideas and attitudes - for spreading among a large public vivid images of its own New Ways is what modernization distinctly does. Not the class media of books and travel, but the mass media of tabloids, radio and movies, are now the dominant modes. Today's conception of social change is largely due to the shift of modernist inspiration from the discreet discourse of a few in Oxford colleges and Paris salons to the broadcast exhortations among the multitudes by the mass media.

That some millions of Turks now live in towns, work in shops, wear trousers and have opinions who, a generation ago, lived in the centuries-old sholvans symbolizing the agrarian, illiterate, isolate life of the Anatolian village is what modernization has already done to some people. That other millions throughout the world are yearning to trade in their old lives for such newer ways is what modernization promises to most people. The rapid spread of these new desires, which provide the dynamic power of modernization, is most clearly perceived in the coming of the mass media. To see why this is so - to comprehend what the developing peoples are experiencing under the title of modernization - we remind ourselves of what, historically, happened in the West. For the sequence of social change in the developing most-of-the-world can be understood as a deviation, in some measure a deliberate deformation of the Western model.

This observational standpoint implies no ethnocentrism. As we shall show, the Western model of modernization exhibits certain components and sequences whose relevance is global. Everywhere, for example, increasing urbanization has tended to raise literacy; rising literacy has tended to increase media exposure; increasing media exposure has "gone with" wider economic participation (per capita income) and political participation (voting). The model evolved in the West is a historical fact. That the same basic model reappears in virtually all modernizing societies on all continents of the world, regardless of variations in race, color, creed, has been demonstrated to my satisfaction. The point is that the secular process of social change, which brought modernization to the Western world, has more than antiquarian relevance to today's problems of social change. Indeed, the lesson is that contemporary modernizers everywhere will do well to study the historical sequence of Western growth.

Taking the Western model of modernization as a baseline is forced upon us, moreover, by the tacit assumptions and proclaimed goals which prevail among the spokesmen for the emerging nations. That some of these leaders, when convenient for diplomatic maneuver, denounce the West is politically important and explains why it is more tactful to speak of "modernization" rather than "Westernization". Rather more important, Western society still provides the most developed model of societal attributes (power, wealth, skill, rationality) which these spokesmen continue to advocate as their own goal. Their own declared policies and programs set our criteria of modernization. From the West came the stimuli which undermined traditional society everywhere; for reconstruction of a modern society that will operate efficiently in the world today, the West is still a useful model. What the West is, in this sense, the rest of the world seeks to become.

But these societies-in-a-hurry have little patience with the historical tempo of Western development; what happened in the West over centuries, some Middle Easterners

now seek to accomplish in years. Moreover, they want to do it their "own way". A complication of modernization is local ethnocentrism - expressed politically in extreme nationalism, psychologically in passionate xenophobia. The hatred born by ethnocentrism is harvested in the rejection of every appearance of foreign tutelage. Wanted are modern institutions but not modern ideologies, modern power but not modern purposes, modern wealth but not modern wisdom, modern commodities but not modern cant. It is not clear, however, that modern ways and words can be so easily and so totally sundered. Underlying the variant ideological forms which modernization took in Europe, America, Russia, Japan there have been certain behavioral and institutional compulsions common to all. These historical regularities some leaders of the new nations now seek to obviate, trying instead new routes and risky by-passes.

Transformation of Arenas

The conditions just sketched, from our experience of the Middle East over the past decade, have now come into view in virtually every region of the globe. They have already transformed the arena of world politics and they are in process of transforming the arenas of national policy. This is what Professor Calder has in mind when he insists that there is "no place where the awareness of a new world has not penetrated"

The transformation of the world political arena is illustrated by the United Nations, which has more than doubled its membership over the two decades of its history. The advent of so many new nations so fast to a full voice in the major world forum is not without relevance to the power-balancing processes in the world arena. That Guinea has an equal voice with France in the General Assembly is disturbing to many Frenchmen, as the popular response to De Gaulle's strictures on the U.N. has shown.* But the

* The recent elections indicate no need to revise this sentence.

disturbance is not only symbolic. It affects the way France votes - or abstains from voting - on many issues that come to the General Assembly for decision and thus acts as a real constraint on French policy in the world arena

We need not exaggerate the power of the Afro-Asian bloc in order to form a just appreciation of the influence it has accrued by its strategic entry into the world communication network. Its role in U.N. peacekeeping operations is clear and present - whether as lead tenor in the Congo or as figured bass in the Middle East. More subtle, and perhaps more significant for the long-term shape of the world arena, has been its constraining influence upon the evolution of the Cold War. The bipolar structure which shaped postwar politics in the first postwar decade has not been obviated but its operation has been constrained to less crucial terms and less apocalyptic consequences than had been widely feared.

In this evolution, clearly the major terms have been the "containment" policy of the U.S. and the "competitive coexistence" policy of the U.S.S.R. But it is just this shift of major terms in the decade 1946-56 that illustrates the influence of the emerging nations upon the shape of the world arena. The splitting of bipolar alliances under control by the superpowers was initiated, a decade ago, when Iraq withdrew from MEEO and obliged the U.S. to reshape its Middle East alliance in the more limited structure of CENTO (i.e., effectively removing the Middle East altogether from the western system of alliances). A few years later, having profited from substantial increments of Soviet aid in the post-MEEO aftermath, Iraq imposed a similar constraint upon the U.S.S.R. - by denying it access to the Middle East via Iraq.

Egypt's Nasser was not slow to perceive the advantage of the blackmail game. He, too, kicked a series of western shins (British, French, American) and reaped cantem ludos and cash as a reward. But when Soviet strategy began to move from indulgence of

independence (as in the Aswan Dam situation) to deprivation of autonomy, Nasser kicked Soviet shins just as hard as ever he had kicked the west's - hard enough that Khrushchev renounced him publicly as an "impetuous young man".

The reshaping of the bipolar structure of Cold War politics began when the super-powers became convinced, owing to effective nuclear parity, that they had little to gain by large-scale violence against each other. It was promoted when the emerging nations perceiving the opportunities presented to them by the bipolar standoff, developed autonomous demands upon the world arena. Initially, this took the form of refusal to bipolarize - variously designated along a policy continuum from "non-alignment" to "positive neutralism". In the longer term, it has refocused the attention of the world arena from Cold War strategies to Development policies. The core of this successful operation upon the world political arena can be summarized in a single sentence stating a crude but potent lesson of the new world communication network: It is our needs, not young, that require world attention.

That every developed area of the globe has responded to this communication from the developing most-of-the-world in the measure of its efficiency. The impact upon policy thinking in the U.S. (the one nation that can readily afford both guns and butter) has been marked by the policy transition from "technical assistance" under Point IV to "international development" under AID - accompanied by the budgetary transition that assures the developing areas of a minimal bipartisan commitment of U.S. funds in excess of \$ 3 billion per annum. The impact upon Soviet thinking is less easy to express in numerical terms, owing to the particularities of Soviet budgeting and reporting, but is quite evident in the reshaping of Soviet policy over the past ten years. Even such newer European Community institutions as the Common Market - the old continent's most imaginative effort to renew itself in its post-colonial era of diminished power - have set aside important resources in an "Overseas Development Fund" designed to aid the

modernization of the rest-of-the-world.

The modernization areas thus have won significant victories, over the past decade, in reshaping the world arena to share the burden of its own development problems. In so doing, however, they have begun a process of reshaping the arena in which their own national lives are lived. They have embarked upon the fateful venture which Karl Deutsch calls "the mobilization of the periphery". The "periphery" is that vast mass of the world's peoples who have never before figured in a national or world political arena. Their "mobilization" requires the diffusion among them of mobility - the desire and the capacity to move from where they are. The diffusion of mobility has initiated a process that may well entail the greatest transformation of human life-ways that has ever been recorded in history. It is of this transformation - which may be considered as a simultaneous input-output function of enlightenment and communication that we would now briefly speak. Our focus will be on the communication of information, particularly via the mass media, which supplies the new enlightenment underlying the global diffusion of mobility, the characterological transformation of empathy, and the revolutionary raising of expectations in the modernizing rest-of-the-world.

The New Enlightenment: Mobility and Media; Fantasy and Expectations

An effort is needed for people in the modern West to appreciate the scope and depth of problems which modernization presents to most of the contemporary world. This is so because people in the Western culture have become habituated to the sense of change and attuned to its various rhythms. Many generations ago, in the West, ordinary men found themselves unbound from their native soil and relatively free to move. Once they actually moved in large numbers, from farms to flats and from fields to factories, they became intimate with the idea of change by direct experience. Physical mobility so experienced naturally entrained social mobility, and gradually there grew institutions

appropriate to the process. Social institutions founded on voluntary participation by mobile individuals required a new array of skills and a new test of merit, indeed a new personality. The idea spread that personal mobility is itself a first-order value; the sense grew that social morality is essentially the ethics of social change. A man is what he may become; a society is its potential. These notions passed out of the realm of debate into the Western law and mores.

It took much interweaving through time, between ways of doing and ways of thinking, before man could work out a style of daily living with change that felt consistent and seamless. The experience of mobility through successive generations gradually evolved participant lifeways which feel "normal" today. Indeed, while past centuries established the public practices of the mobile society, it has been the work of the twentieth century to diffuse widely a mobile sensibility so adaptive to change that reorganization of the self-system is its distinctive mode. The mobile person is distinguished by a high capacity for identification with new aspects of his environment; he comes equipped with the mechanisms needed to incorporate new identifications and demands that arise outside of his habitual experience. This capacity we call empathy.

We are interested in empathy as the inner mechanism which enables newly mobile persons to operate efficiently in a changing world. Empathy, to simplify the matter, is the capacity to see oneself in another fellow's situation. This is an indispensable skill for people moving out of traditional settings. Ability to empathize may make all the difference, for example, when the newly mobile person is a villager who grew up knowing all the extent individuals, roles and relationships in his environment. Outside his village or tribe, he must meet new individuals, recognize new roles, and learn new relationships involving himself. A rich literature of humor and pathos once dealt with the adventures of the country bumpkin in the Big City, the bewildered immigrant in a strange land. They had to learn their way in these new settings. Learn,

in swelling numbers, they did. The story of the 19th century West includes this learning, which now enters the story of the 20th century East. Accordingly, we are interested in the mobile personality mainly as a social phenomenon with a history. Our concern is with the large historical movement, now becoming visible everywhere in the most-of-the-world, of which an enlarged capacity for empathy is the distinctive psychic component. Our interest is to clarify the process whereby the high empathizer tends to become also the cash customer, the radio listener, the voter.

A major hypothesis in this theoretical model is that high empathic capacity is the predominant personal style only in modern society, which is distinctively industrial, urban, literate and participant. Traditional society is nonparticipant: it deploys people by kinship into communities usually isolated from each other and often isolated from any center; without an urban-rural division of labor, it develops few needs requiring economic interdependence; lacking the bonds of bread-and-butter interdependence, people's horizons are limited by locale and their decisions involve only other known people in known situations. Hence, there is no need for a transpersonal doctrine formulated in terms of shared secondary symbols - an "ideology" which enables persons unknown to each other to engage in political controversy or achieve "consensus" by comparing their opinions. Modern society is participant by contract, precisely because it functions by "consensus". Individuals making private decisions on public issues must concur often enough with other individuals they do not know to make possible a stable common governance. Among the marks of this historic achievement in social organization, which we call Participant Society, are these: most people go through school; read newspapers and listen to radios; receive cash payments in jobs they are legally free to change; buy goods for cash in an open market; vote in elections which actually decide among competing candidates; and express opinions on many matters which are not their private business.

Especially important, for the Participant Style, is the enormous proportion of individuals who are expected to "have opinions" on public matters - and the corollary expectation of these people that their opinions will matter. It is this subtly complicated structure of reciprocal expectation which sustains widespread empathy. For, in any society, only when the accepted model of behavior is emulated by the population at large does it become the predominant personal style. The model of behavior developed by modern society is characterized by empathy, a high capacity for rearranging the self-system on short notice. Whereas the isolate communities of traditional society functioned well in the basis of a highly constrictive personality, the interdependent sectors of modern society require widespread participation. This, in turn, requires an expansive and adaptive self-system, ready to incorporate new roles - which enables them to identify personal values with public issues, individual demand with institutional supply. This is why modernization of any society has involved the great personality transformation we call empathy. The latent statistical assertion involved here is this: In modern society more individuals exhibit higher empathic capacity than in any traditional society.

The expansion of psychic mobility means that more people now command greater skills in imagining themselves as strange persons in strange situations, places and times than did people in any previous historical epoch. In our time, indeed, the spread of empathy around the world is accelerating. The earlier increase of physical experience through transportation has been multiplied by the spread of mediated experience through mass communication. A generation before Columbus sailed to the New World, Gutenberg activated his printing press. The technical history of the popular arts suggests the sequence. The typical literary form of the modern epoch, the novel, is a convergence of disciplined empathy. Where the poet once specialized in self-expression, the modern novelist reports his sustained imagination of the lives of others. The process is carried further in the movies and in radio-television dramas. These have peopled the daily world of their

audience with sustained, even intimate, experience of the lives of others.

Radio, film and television climax the evolution set into motion by Gutenberg. The mass media opened to the large masses of mankind the infinite vicarious universe. Many more millions of persons in the world were to be affected directly, and perhaps more profoundly, by the communication media than by the transportation conveyances. Moreover, by obviating the physical displacement of travel, the media accented the psychic displacement of vicarious experience. For the imaginary universe not only involves more people, but it involves them in a different order of experience. There is a world of difference, we know, between "armchair travel" and actually "being there". What is the difference?

Physical experience of a new environment affords the sensibility with a raw perception of Lasswell-Kibberg "interactions" in their complex natural setting. Vicarious experience occurs in quite different conditions. Instead of the complexities that attend a "natural" environment, mediated experience exhibits the simplicity of "artificial" settings contrived by the creative communicator. Thus, while the traveler is apt to become bewildered by the profusion of strange sights, sounds and smells, the receiver of mediated communications is likely to be enjoying a composed and orchestrated version of the new reality. He has the benefit of more facile perception of the new experience as a "whole", with the concomitant advantage (which is sometimes illusory) of facile comprehension. The stimuli of perception, which shape understanding, have been simplified.

The simplification of stimuli, however, is accomplished at a certain cost. The displaced traveler's great pragmatic advantage is that he must take responsive action toward the stimuli presented by the new environment. However painful this may be - as when, to take a simple case, he has lost his way and must ask directions in a language of which his mastery is uncertain - overt action does help to discharge the traveler's

interior tensions. But the passive audience for mediated communications has no such discharge channel; the radio-listener's personal response to new stimuli remains confined to his own interior. The inhibition of overt active response is a learned behavior and a difficult one. It was common, in the early days of movies, for persons strained beyond endurance to throw themselves or some object at the screen to stop the villain from strangling the heroine. When the "old media hands" among our youngsters today will sometimes, at a particularly agonizing moment in the television show, hide their faces.

Thus the mass media, by simplifying perception (what we "see") while greatly complicating response (what we "do"), have been great teachers of interior manipulation. They disciplined Western man in those empathic skills which spell modernity. They also portrayed for him the roles he might confront and elucidated the opinions he might need. Their continuing spread in our century is performing a similar function on a world scale. The Middle East already shows the marks of this historic encounter. As a young bureaucrat in Iran put it: "the movies are like a teacher to us, who tells us what to do and what not". The global network of mass media has already recruited enough new participants in all corners of the earth to make the "opinions of mankind" a real factor instead of a fine phrase in the arena of world politics. There now exists, and its scope accelerates at an extraordinary pace, a genuine "world public opinion". This has happened because millions of people, who never left their native heath, now are learning to imagine how life is organized in different lands and under different codes than their own. That this signifies a net increase in human imaginativeness, so construed, is the proposition under consideration.

The increase of human imaginativeness, under the new enlightenment, has enormous societal consequences. In particular, it transforms all those "interactions" by which our Lasswell-Holmberg framework paper defined value events; and it does so by trans-

forming the "sequence of communication and collaboration" which enable all such interactions to be summarized. Mobility initiates the process by displacing persons into new environments. Media - which we have called the "mobility multiplier" - accelerate the process by depicting alternative value events and supplying vicarious lessons in the interactive sequences appropriate to them. Empathy, which enables individuals to understand such vicarious experiences and to refigure their sequences in personal terms, invariably leads to rising expectations. For, what can activate a man's imagination more effectively than an idea of something better than what he has?

The empathy-based "revolution of rising expectations" has been with us now for two decades. We have learned from its visible consequences that rising media participation tends to raise participation in all sectors of the social system. In accelerating the spread of empathy, it also diffuses those other modern demands to which participant institutions have responded: in the consumer's economy via cash (and credit), in the public forum via opinion, in the representative policy via voting.

But we have also learned that no underdeveloped society can satisfy such a simultaneous set of rising demands - or, at least, that no developing society has done so over the past two decades. It is to this disequilibrium between individual demand and institutional supply that we now turn.

The Kant: Got Ratio and Rising Frustrations

The past two decades have taught us that mobility, while indispensable to rapid social change, is not enough. It is a necessary but not sufficient condition of growth. Since mobility is a seeking for something better, it must be balanced by a finding - so, in equilibrium, a demand must be balanced by a supply. It is the continuing failure of most transitional societies to maintain the balance of psychic supply-and-demand that underlies the new revolution of rising frustrations.

The spread of frustration accelerates when many people in a society want far more than they can hope to get. This disparity in the want : get ratio has been studied intensively in the social science literature in terms of achievement and aspiration, as expressed in the following equation (adapted from an ingenious formula of William James):

$$\text{Satisfaction} = \frac{\text{Achievement}}{\text{Aspiration}}$$

This formulates the proposition that an individual's level of satisfaction is always, at any moment of his life, a ratio between what he wants and what he gets. A person with low achievement may be satisfied if his aspirations are equally low. A person with high achievement may still be dissatisfied if his aspirations far exceed his accomplishments. Relative deprivation, as has been shown, is the effective measure of satisfaction among individuals and groups.

A wide and deep imbalance in this ratio characterizes the developing areas that are now beset by rising frustrations. Typically in these situations the denominator increases faster than the numerator - i.e., aspiration outruns achievement so far that many people, even if they are making some progress toward their goal, are dissatisfied because they get so much less than they want. Indeed, in some developing countries aspirations have risen so high as to annul significant achievements in the society as a whole.

Our experience of the apparently insuperable disequilibria in the want : get ratio also has been a source of deep frustration to theorists and planners of modernization. It has falsified the predictions and belied the assumptions of those who forecast the coming of the good society to the backward areas. Among its casualties has been the assumption that if some particular input was made - i.e., investment capital, industrial plant, agricultural methods, entrepreneurial training, or any other "key factor" preferred by the analyst - then a modernization process would be generated more or less spontaneously. This is a serious casualty. As Lucian Pye has aptly written: "Faith in

spontaneity died soon after the first ex-colonial people began to experience frustrations and disappointment at becoming a modern nation".

This frustrating experience is new to us and requires careful evaluation - particularly by those who want the analysis of past defects to help prepare the next victories that may still be hoped for. The postwar decades witnessed the spread of economic development projects around much of the world. People throughout the backward and impoverished areas of the world suddenly acquired the sense that a better life was possible for them. New leaders arose who encouraged their people to believe in the immanence of progress and the fulfillment of their new, often millennial, hopes. A great forward surge of expectancy and aspiration, of desire and demand, was awakened among peoples who for centuries had remained hopeless and inert. This forward feeling was shared by development analysts.

A significantly different mood characterizes thinking about the decade before us. While rising expectations continue to spread around the underdeveloped world, those of us who retain an interest in comprehending or programming rapid growth have learned that the ways of progress are hard to find, that aspirations are more acutely aroused than satisfied. There is a new concern that the 1960's may witness the radical counterformation we have called a revolution of rising frustrations. As the institutional limits on durable incorporation of rapid growth have become more clearly visible, we have become more concerned with maintenance of equilibrium in developing societies. Among other things, we have learned that disequilibrium is not always functional and that the subversion of institutions is not always "progressive" - or, at least, that the changes which follow the breakdown of extant institutions do not necessarily signal progress in the direction postulated by our own preference models or those of the developing peoples. The recurrence of "military takeover", in every modernizing region of the world, is a case in point.

We submit that the inadequacy of much behavioral theorizing about modernization is due to inattention to the functional role of institutions in the shaping - as well as sharing - of the new values which motivate and activate all social change. We further submit that institutions comprise some of the essential time-place conditions of mobility and stability - their tempo and balance in any particular society at any particular period of its history - that must figure in any strategy of accelerated development.

Since these statements indicate my conviction that behaviorists have significantly underestimated the relevance of institutions for all theories of induced social change, I turn next to this item on the agenda authorized by the Keeswell-Hinshelwood framework paper. In theoretical terms, we seek to replace the misleading notion of a "transfer of institutions" with a behaviorally-based argument that any such transfer can only be effectively incorporated in a modernizing society when it operates through an indigenous "transformation of institutions".

The Transformation of Institutions *

We start from the definition that institutions are the behavioral patterns performed by people whose goal is to enhance as much as possible the values which they hold important. The process involves an expenditure of available skills and knowledge upon the raw materials at hand; the process is actually one of conversion. The process becomes an institution the the application of techniques to the resources is formulated into a set pattern which is productively efficient. Routine behavior which conforms to a maximizing principle is rational. An institution, in short, is a code of rational, routine activity.

* Here I have adapted my somewhat polemical attack upon the management of a symposium on this problem. See my lead article "The Transformation of Institutions" in The Transfer of Institutions, ed. W.B. Hamilton (Duke 1964)

The style of such codes is various. They may be prescribed by statute or be made routine through custom. The rules may be numerous and detailed, hence rigid; or they may fix only scant rules-of-the-game within which behavioral variation is permitted, hence flexible. A code is coercive if it prescribes mandatory sanctions against all specific transgressions, or persuasive if its motivating mechanism is inducement rather than retribution. Finally, codes vary widely in their efficiency--i.e., the ratio of cost to gain in the conversion process.

For example, consider the marital institution, which regulates the behavior of spouses seeking mutual values by the application of mutual techniques to mutual resources. No institution is more universal; no codes are more various. Their diversity derives from the varying conceptions of the values which are to be enhanced by marriage. The differing values attached to marriage, in turn, diversify the conceptions of the basic resource which is to be converted. Where greatest importance is attached to conjugal bliss, there affection is the raw material. Where self-reproduction is the primary goal, the genetic resource becomes salient. On the other hand, joint income and social status are fundamental to the marriage which is identified with socioeconomic gain.

Underlying these variations, which anthropology has elaborated in a formidable inventory, marital codes exhibit one remarkable regularity: they always stipulate the conditions of authorized participation in marital routines. However widely the codes may differ in their definitions of the values of marriage, they all join in recognizing that rational formulation of marital behavior requires the explicit stipulation of "who does what to whom" (to adapt a phrase from Lasswell). Furthermore, this functional component is present in all marital codes, though their structural stipulations may vary widely in rigidity, coerciveness, and efficiency.

Interest in this regularity is indicated by a case study by Professor John Kemeny, who is a mathematician and not an anthropologist. He sought to discover how efficiently the rules designed to prevent incestuous and consanguineous marriages operate in certain primitive societies. The efficacy of these rules is extremely important in societies where no written records are kept, for here family relationships may be confused or forgotten, making possible innocent mistakes. A conventional procedure is to assign to each person in the society a certain "marriage type" and to rule that only men and women of the same type may marry. If every son and daughter is assigned a type which differs from the parents' and from each others', then incestuous marriage can be stopped effectively.

A problem arises, however, in designing an efficient rule to prevent intermarriage between persons of the next degree of blood-relationship, e.g., uncles, aunts, first cousins. Most primitive societies which incorporate this purpose in their marital code have devised some rule to accomplish it--more or less. The elusive quantum of error in these codes, which otherwise do rationally govern marriage choices, may perpetuate through generations and centuries a less than optimally-efficient rule that causes deep and unnecessary unhappiness to individuals in these folk societies.

It was doubtless the plight of these people that stimulated Professor Kemeny to work out a mathematical-type model for improving the "more or less" efficient operation of marital codes. He did this by perceiving the algebraic common characteristic of these codes (their "parameter"):

The marriage group must be a regular permutation group which is generated by the parent-to-son transformation and by the parent-to-daughter transformation. Since regular permutation groups are relatively rare, this

theorem enables one to find easily all possible marriage rules for a given number of marriage types. For example, it is shown that there are but six possible sets of rules for a society having four marriage types.¹

Applying this general model to societies wishing to prohibit all first-cousin marriages, Kemeny states that "the necessary and sufficient condition for this is that parent-to-son and parent-to-daughter transformations should not commute and that their squares should not be equal."² Relating the new general rule to the two particular institutional codes which focused his attention on this problem, Kemeny concludes: "The Kariera and Tarau societies could not possibly have eliminated all first-cousin marriages if they wanted to use only four types."³

Professor Kemeny, a humane as well as brilliant man, then reflects on the human meaning of the problem he has solved. He writes:

It is most impressive that a society that is unable to keep precise records should have been able to solve, through trial and error, a problem that requires fairly intricate mathematical operations for formal analysis. It also shows, however, that their procedures could have been considerably improved if they had been in a position to use modern algebra to design the rules.

This conclusion is, in my judgment, intellectually correct and morally good. Yet, it leaves the hardest problem untouched for those of us interested in the transfer of

institutions. Let us be clear about why I have presented the Kemény case study to you. I am no specialist in the codification of marriage rules, having never gotten beyond amateur status in marital relations. Nor do I pretend to be expert in the mathematization of "anybody's problems." Since I am more preoccupied with who has which problems and why, I particularly ask those of you who have expressed interest in the latent-structure analysis of my Middle Eastern materials, to probe deeper than the merely marital and mathematical surface of the present case.

I invite you to consider, rather, the poignancy of Kemény's condition: "...if they had been in a position to use modern algebra to design the rules." I further invite you, in this roundabout but pointed way, to consider the deep question: What would such societies as Kariera and Tarau have to become in order to put themselves in a position to use modern algebra to improve their marriage rules? This, I believe, is the basic question for those of us concerned with the transfer of institutions from more to less developed societies.

Kemény's encounter with the untutored peoples suggests two lessons of general import for the transfer of institutions. One is that the behavioral patterns routinized in traditional societies are rational in some sense--i.e., they do apply the best available techniques to available resources in order to maximize their values. The Kariera and Tarau "marriage types" became traditional, over many centuries of usage, precisely because they did perform their function of preventing consanguineous marriages with tolerable efficiency. Had the margin of error inherent in these types produced more first-cousin marriages than could be tolerated, these societies doubtless would have worked out in due course some appropriate alterations of their marital code. It is not even implausible, given the history of other untutored peoples, that these alterations unwittingly would have moved their code further in the direction

of Kemeny's "regular permutation groups." The lesson, then, is that traditional societies can adapt to internally generated needs and can formulate indigenous solutions to problems of dysfunction within their own system of institutions. (When they can no longer do this they degenerate and disappear through disease, emigration, or conquest.)

The second lesson is that traditional societies cannot respond so readily to challenges external to their institutional system. Any institution requires, since it operates by the routinized activity of its constituents, a sufficient quantum of behavioral inertia to minimize frictional deviations from routine. In traditional societies, the mean quantum of behavioral inertia is very high. This reflects the shaping influence of behavioral codes that are customary rather than statutory. Customary codes evolved through centuries of lived-through experience that make them "feel right" are less adaptive to external challenges than statutory codes, which, being based on some explicitly articulated rationale for their behavioral prescriptions, are more readily modified when the reasons change.

There is more than legal formalism intended by this distinction. Its historical voucher is the plain fact that societies moving from the traditional to modern system invariably add the statutory to the customary codification of behavioral rules. (I underscore the invariance of this association because it puts us on the track of a "parameter"--or, in a stricter version of my present hypothesis, an item which belongs in an index that, when adequately tested in empirical cases, will yield a parameter.) Our interest in the codes embodying behavioral regulation--whether legal or ethical, statutory or customary--is sociological in the sense of societal. We are concerned with the process by which the behavioral codes of more developed societies are communicated to less developed societies. This means, in my view, a process that

is typically (were I not leery of the metaphysical resonance, I would say essentially) intrusive upon the less developed societies.

To focus this point, we pause to pick a terminological bone. Note that our preferred phrase is "communication of codes," not "transfer of institutions." We insist upon the behavioral meaning of "institution" because any other sense of this highly ambiguous term misleads us into a preoccupation with pseudo-problems, i.e., problems incapable of empirical diagnosis and therefore, a fortiori, of empirical solution. We reject utterly the term "transfer" because it is the contrary (possibly even the contradictory) of the process that concerns us. Oxford tells us that to transfer is to "convey, remove, hand over...; make over possession...; convey...from one surface to another..." None of these meanings corresponds with the always intrusive, often disruptive, and usually violent process that is on our agenda. Indeed, the last definition suggests how superficial any notion of "transfer of institutions" turns out to be--i.e., "convey from one surface to another"!

We can exonerate David Apter, who first gave currency to this unfortunate phrase, on the ground that he abandoned it first. Apter's renunciation of the phrase comes at the beginning of the only chapter which uses it as a title, i.e.: "Political institutional transfer, involving secular parliamentary structures, requires and in fact achieves disruption of traditional societies and is in fact composed of elements some of which are dysfunctional to the maintenance of traditional systems."⁶ Any process which "requires and in fact achieves disruption" has little or nothing in common with activities defined as "convey, hand over, make over possession." This point, while terminological, is not trivial. The root of our understanding of the modernization process is embedded in just this terminological terrain.

The process whereby more developed societies influence less developed societies always involves some institutional "discontinuity" in the less developed societies (some "break" with the past). This is so because traditional societies, while adaptive to internally generated problems, lack efficient mechanisms of consensual response to external challenge. The traditional code's available stock of responses typically provides no compelling behavioral directive for meeting an unprecedented new challenge. Some enthusiastically accept; others uncompromisingly reject. With such dissension, which calls into question the suddenly inadequate code of traditional lifeways, intrusion occurs and disruption begins.

Note, however, that the controlling component of this sequence is internal to the traditional society. The initial intrusion comes, it is true, from the outside. But its impact depends upon the reaction of the indigenous people. An intrusion that is widely ignored or evaded or rejected has little or no impact. It is only an intrusion which is "internalized" by a significant fraction of the population that can have any lasting effect. The incorporation of dissent thus is the fulcrum of the attitudinal-behavioral sequence, which, on this analysis, presents itself primarily as a communication sequence.

The Communication Nexus in Transformation

The view of modernization as primarily a communication process is not new. Over a century ago, in his preface to Capital, Karl Marx wrote: "The more developed society presents to the less developed society a picture of its own future." This insight, had he explored its meaning more empirically and comparatively, might have made Marx the father of twentieth-century communication studies. If the dynamic mechanism of social change is a "picture," then the relevant questions concern its

form, content, and transmission from the more to the less developed society: who transmits what picture to whom by what means and with what effects? A picture exerts no influence simply by being presented. It must be perceived, evaluated, acted upon. Indeed, as in most communications, it is the response side of the process that determines its effectiveness--i.e., how the less developed society responds to the incoming stimulus from the more developed society determines whether, as Marx postulated, this becomes "a picture of its own future."

Marx inhibited the articulation of his own insight, and stultified research on the process through which it operates, by his parochial focus on the social class that happened to be most salient in his own time and place--the new class of urban industrial workers which preoccupied much of European social thought throughout the nineteenth century. This was the "spectre haunting Europe," in Marx's splendid propaganda phrase, that diverted European sociology from empirical observation to ideological theorizing until Pareto--equipped with an Italian title, a French education, a European engineering experience, and a Swiss chair of mathematical economics--decided, as the old century was turning into the new, that it was time to put sterile polemics aside and have a fresh hard look at how European society was operating. As a cosmopolitan with roots in Tuscany, which had seen the ebb and flow of interregional and international power over centuries, Pareto was highly sensitized to the problem of transfer from more to less developed societies. As an intellectual with roots in science and technology, Pareto was sufficiently motivated and endowed to give the inherited polemics of his day an austere no-nonsense treatment.

Pareto's conception of the "circulation of the elites" provided the most potent antidote yet articulated to Marx's parochialism of the proletariat and liberated new

observational perspectives and research preoccupations among European sociologists. Mosca next focused attention on the "ruling elite"--the political class toward whose recruitment and composition the ownership of the means of production formed but one, and not necessarily the decisive, component. Michels then demonstrated the critical role of intellectuals in the formation and sustenance of both elites and counterelites in the political process. Lasswell brought this new tradition squarely into the twentieth-century context by showing that psychological variables often outweighed economic variables in the distribution of power. He thereby became what a less parochial Marx might have been--the father of communication studies.

I repress my passion for the history of social science at this point (begging your pardon for the curt take-it-or-leave-it style of these few condensed remarks) to talk about another problem that is only partially illuminated by its prehistory. What post-Marxian social science has accomplished enables us, as it were, to investigate systematically who gets what, when, how, and why. This is crucial legislation for it guides us--as we turn to consider the impact of our own developed societies upon the less developed societies today--in enriching economic sociology with communication sociology, in framing institutional change within the larger context of individual behavior.

So, we are more concerned with the transformation of institutions as they pass from more to less developed societies in the contemporary world. We focus on the sociological communication of ideas and give particular attention to the characteristics of individuals actually recruited into the elites and counterelites (rather than ideologically attributed to these categories). We now recognize the plain fact that the Marxian proletariat has played a relatively small role in the process of social change since history took leave of nineteenth-century Europe.

Other modes, other codes have played the key role in the present century. Contemporary social research, with all its flaws and blemishes, has at least the virtue--since the Marxian "spectre haunting Europe" was laid away--of looking history straighter in the face.

Thus, Everett Hagen, a first-class economist with a curiosity for finding out how things really are sociologically, which is uncommon in his discipline, put many years of effort into detecting how economic growth begins. Although Hagen first applied his general model only to Japan, he has shown that its applicability goes beyond this in principle. For its key concept is a reformulation of the Lasswellian counterelite, which Hagen calls the "subordinated class," in terms that encompass the urban proletariat of nineteenth-century Europe as a particular case and go beyond it to include other social formations that have engineered a transformation of institutions.

What Hagen's study offers us is an account of the psychosocial process whereby a developing society--stimulated by the picture of its own future from abroad--accomplishes the internal redistribution of power (which presumably is what is meant by the transfer of institutions). His "subordinated class" is composed of individuals who want larger shares in the distribution of social values than existing institutions are prepared to give them. They learn to articulate individually their frustrated desires, to aggregate their interests interpersonally with frustrated others, and to coalesce the power thus aggregated in political action designed to reshape institutions according to their plans. So conceived, the "subordinated class" can perform its transference function whatever may be the particular recruitment and composition of its membership.

In Hagen's treatise, the subordinated merchant class played a pivotal role in the

perception, evaluation, and application of new ideas which ultimately transformed Japanese society. In Turkey, the crucial function was performed by the military class. In the ideological revolutions of the twentieth century, the intelligentsia took the lead in articulating and aggregating the interests of a counterelite in political transformation. Our study group at the M.I.T. Center for International Studies has concluded that in the contemporary world durable transformation of institutions is likely to be accomplished by the coalition of intellectuals, soldiers, and bureaucrats, with entrepreneurs, workers, and peasants playing differential roles in the vanguard and rear guard.

The intellectuals play their pivotal role in the contemporary transformation of institutions because they are distinctively the literate and informed sector of their societies. It is with the literate and informed members of the military and bureaucratic formations that they are likely to make their revolutionary coalitions. This is because the transformation of institutions, in our time, has been quickened and broadened by the unprecedented transfer of ideas around the world's surface. We have reference here to the notorious communication revolution which, over the past two decades, has altered the basic conditions of political behavior within and between nations. Most dramatic has been its impact upon the flow of influence from more to less developed nations.

Colonel Nasser, prime example of the military intellectual as contemporary transformer of traditional institutions, has stated his version of the communication revolution in these terms: "It is true that most of our people are still illiterate. But politically that counts far less than it did 20 years ago...Radio has changed everything... Today people in the most remote villages hear of what is happening and form their opinions. Leaders cannot govern as they once did. We live in a new world."

"Radio has changed everything!" What does Colonel Nasser intend us to understand by this emphatic statement? What, precisely, has changed? My own studies of the Middle East described in considerable detail the sequence of changes which, I believe, has transformed the style of life of traditional societies around the globe. I shall not recapitulate these findings here but rather focus on the main conclusion relating to our present concern with the transformation of institutions--namely, that traditional societies are passing from the face of the earth because the people in them no longer want to live by their rules. This massive and simultaneous abandonment of traditional codes of behavior in every part of the world raises problems of unprecedented scale and scope for the transformation of institutions.

I have already indicated why I consider that no significant transfer of institutions from more to less developed societies is taking place in our time. The notion of an orderly procedure to "convey, hand over, make over possession; convey from one surface to another..." is incompatible with the intrusive, disruptive, violent process already at work in the less developed societies. My diagnosis of this process embodies the forecast that, in the lifetime of the present generation, the disruptive process must continue and its political consequences must deepen.

It was never within the power of communications from more to less developed societies to prevent the disruption of traditional institutions. Indeed, the intrusion of the more developed and the consequent disruption of the less developed illustrates that "sequence of communication and communication" which our Lasswell-Holmberg framework paper considers essential for the "interactions" that produce the new preference models underlying modernization.

But, if the situation is theoretically indispensable, the case is an instance of empirical imperfection. No reasonable man will be astounded by the idea that

cases alter situations. The multiplication of disruptive institutional cases, over recent decades, invites reconsideration of the intrusive communication situation. What we theorists and planners of induced and accelerated social change must reconsider is the tempo and balance of our intrusions--for this is not only a key variable in theory, but a key variable over which planners still have (despite grave errors in the past) some measure of control. To aid serious reconsideration, I shall now profane some sacred cows--hoping thereby that to help correct the excessively disruptive imbalances that now impede modernization.

Disruptive Imbalances in Modernizing Models

We have already indicated our conviction that a favorable Want: Set ratio is critical for the sense of satisfaction among peoples everywhere in the world - and that an unfavorable ratio leads to frustration. We have further delineated our proposition to show that the critical Want: Set ratios have been floated by the theory and practice of induced social change. We have then suggested that this floating has occurred, all too innocently, because behaviorists have been inattentive to the "interaction" (in the Lasswell-Holmberg sense) between individual preference models and institutional constraints under the conditions of limited resources that prevails in most modernizing societies. This inattention, which has promoted "disruptive imbalances" by ignoring the necessity for a "transformation" rather than a "transfer" of institutions as between more and less developed nations, endangers behavioral theory and institutional practice of foreign aid. Now, we turn to reconsideration of some modal cases that have transformed the situation with which modernization must deal both in practice and theory.

It is difficult, for example, to induce Americans and other moderns, to reconsider dispassionately that literacy may be dysfunctional - indeed a serious impediment - to modernization in the societies now seeking (all too rapidly) to transform their institutions. Yet, I submit, the "literacy explosion" may constitute a more serious threat to human hopes for a rational world order than the highly publicized "population explosion" - just as the urbanizing force in transitional societies has already passed the limits of what we tranquilly, in the United States, refer to as the "expanding metropolis".

Please understand the intention of these remarks. I am not opposed to literacy in principle, any more than I am opposed to babble or stupidity in principle. I am opposed to dysfunctional literacy - dysfunctionality signifying, in this context, the behavioral consequences which do more harm than good to the individuals acquiring literacy as well as the harmful sociological consequences of an excessively rapid increase of literacy rates

in many transitional societies.

The point I wish to stress is that transitional societies can use only a certain amount of literacy within a certain time. We must remind ourselves that literacy first pervaded the modern West as a skill with a payoff before it became a psychocultural adornment. We must recall that literacy was a passport, for nearly mobile men, to jobs and other satisfying opportunities for achieving a better life. We must, in sum, recall the penetrating question raised by George Bernard Shaw (who was, after all, a Fabian socialist): "How can you dare to teach a man how to read before you have taught him everything else?"

The disruption of transitional societies - the factor which makes an orderly transfer of institutions impossible in most of the world today - is an outcome of, among other things, widespread disregard of Shaw's prudent query. Many millions of people around the world are being taught to read long before they have learned "everything else", indeed long before they have the opportunity to acquire anything else in the historical "literacy syndrome" of the West.

My own empirical studies confirmed the focal role here attributed to literacy. Historically, it is distinctively the literate who has become the newspaper reader, the opinion giver, the cash customer, the voter - i.e., the participant in the modern sectors of his society such as the communication network, the opinion forum, the market economy, the electoral polity. The gradual and conjoint growth of urbanism and literacy evolved the modern code of participant behavior - a code which, since it requires the transformation of millions of individual life-histories through generations, cannot simply be transferred from one society to another.

Without pausing to review the interpretation of findings which have been published

elsewhere, we stress two conclusions that are especially relevant to the present discussion. First, the demonstration that the indices of modernity go together regularly in all countries - regardless of their great differences in geography, climate, race, culture, and other presumably "basic" traits - supports the hypothesis that, in some sense, they had to go together. The components of modern participant society form a genuinely interdependent "system", in which significant variation of one component must entail significant variation of all the others.

The second conclusion we stress is that imbalance among the components of modernization is disruptive in the transitional society. By disruptive I mean more than some transitory impediment, or tactical delay, in the process of modernization. I mean, rather, the incorporation of some stochastic element which is likely to render the process abortive or turn it in a direction quite different from modernization as represented by Western Europe and North America. This is so because the components of modernity, as we have defined them, must be built into the life-history of individuals - and, once there, they are not easily rearranged. People who move into cities, for example, are likely to stay there. (Back-to-the-soil movements, before and since the New England utopians of the nineteenth century, have usually attracted only alienated intellectuals and other deviant cases.) Urbanization is a secular trend that has not, in modern times, been successfully reversed.

The same is true of literacy, media participation, and political participation. These are behavioral codes which, once incorporated in the daily round of life by a community of individuals, are not easily revised. Indeed, the great despotisms of twentieth-century Europe - Bolshevik, Fascist, Nazi - were able to reimpose authoritarian controls upon populations that had gained some measure of political participation only by revolutionary blood-letting. In each of these cases, I believe, a stochastic process had disrupted the "system" of modernity and inhibited its efficient functioning.

A similar revolutionary situation - the revolution of rising frustrations - exists in the transitional world today. Its symptom is the military take-over. This symptom has appeared, during the past five years, in every major transitional region of the world. In Asia, military take-over has occurred in Laos and Vietnam, Burma and Pakistan. In the Middle East, virtually every Arab country as well as Iran and even Turkey have manifested the symptom. Both the Sudan and the Congo have, in Africa, exhibited the pattern of military take-over to a continent that is likely to multiply examples rapidly. I need hardly illustrate the case in Latin America.

If military take-over is the symptom, then disruptive imbalance in the modernizing process is the etiology of the revolutionary disease that now pervades the transitional world. Since this situation inhibits the transformation of institutions - and, in my judgement, even distorts the modernization of institutions - it is fitting that we turn, in the concluding section of this paper, to a closer look at the matter.

In turning, we recall that disruptive imbalance occurs when a substantial fraction of the transitional population acquires one of the characteristics of modernity but not the other elements. Since modernity is a style of life - a set of interdependent behavioral codes - the absence of any element in the set tends to be disruptive upon the individual. When a sufficient number of individuals are so affected, then disruptive imbalance is felt in the community as a whole.

Thus, in our typology, the modern person is an urbane literate who participates fully in the public forum, market place, political arena. It is characteristic of the transitional world that most individuals do not exhibit all of these characteristics. The transitional world has, by definition, a tendency toward imbalance built into it. This tendency becomes disruptive when the proportion of individuals who acquire one characteristic without acquiring the others becomes too high.

In one study we were able to establish critical ratios between the four components of modernity in seventy-three countries. Thus, it could be shown that no significant increase in literacy rates could be expected before a country was more than 10 per cent urbanized. Thereafter, when urbanization passed beyond the 10 per cent mark, literacy tended to increase rather steadily - in a direct monotonic relationship with urbanization. This relationship remained constant until the country was 25 per cent urbanized, by which time its literacy rate typically was 50 per cent or better. Thereafter literacy continued to grow independently of further increases in urbanization.

We are not particularly concerned here with the numerical values obtained by our study. Clearly, the critical minimum ratio of 10 per cent and the critical optimum ratio of 25 per cent are artifacts of our statistical figures - i.e., if urbanization were defined differently (we used the proportion of population living in cities over 50,000) then the numerical values would be different. Our concern is rather with the demonstration that critical ratios can be established that demonstrate a constant relationship between urbanization and literacy, however defined, in seventythree countries that are so different in most other respects.

We consider that these ratios demonstrate the limits within which imbalance can be tolerated in most countries without becoming disruptive. A disruptive imbalance would exist on this view, in a society that was over 25 per cent urban but significantly less than 50 per cent literate. Conversely, a society that was better than 50 per cent literate while still under 10 per cent urban would exhibit a disruptive imbalance.

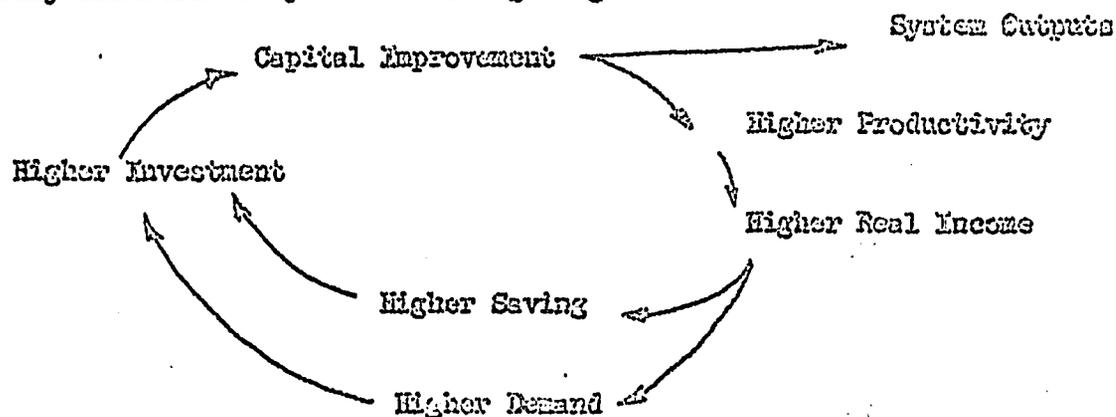
So, concerned that the disruptive balances that have afflicted past theory and practice of induced social change, venture to present as the inadequate conclusion to an unduly complicated analysis a model for future thinking about modernization. This venture is designed to stimulate better theory and research in moving from the vicious

circle of poverty to the growth cycle that spells modernity.

From Vicious Circle To Growth Cycle *

The "vicious circle of poverty" is a phrase used to characterize the situation in which no sustained economic growth is possible because each specific advance is rapidly checked by some counter-tendency in the social system. The most important of such counter-tendencies is excessive population growth. Any significant economic progress tends to prolong life by reducing famine and pestilence. When death rates decrease more rapidly than birth rates - often, indeed, while birth rates are increasing - then rapid population growth occurs. In poor countries population growth tends to "lead" economic growth by setting rates of increase that must be attained so that the society can stay at its existing levels of poverty. No surpluses can be generated, hence no "leap forward" is possible. Singer has succinctly summarized "the dominant vicious circle of low production - no surpluses for economic investment - no tools and equipment - low standards of production. An underdeveloped country is poor because it has no industry; and it has no industry because it is poor."

The picture looks quite different in a society which has broken out of the vicious circle and set its course toward the achievement of a growth cycle. The new situation is vividly illustrated by the following diagram:



* For this concluding section, I have adapted a portion of my terminal chapter "Toward a Communication Theory of Modernization" in Communications and Political Development, ed. L.W. Fye (Princeton 1963)

The story told by this diagram reaches its climax with the achievement of a significant rise in real income. Such a rise becomes significant when it enables the society simultaneously to raise both demand and saving. We have seen that otherwise, in a poor society, small increases of income tend to be consumed promptly - with nothing left over for saving, hence investment. But when income rises rapidly enough to permit higher consumption and also higher saving, then the growth cycle is initiated. Higher investment leads to capital improvement and rising productivity, which in turn raises real income enough to encourage both higher saving and demand. Thereby higher investment is again stimulated - and the growth cycle becomes self-sustaining.

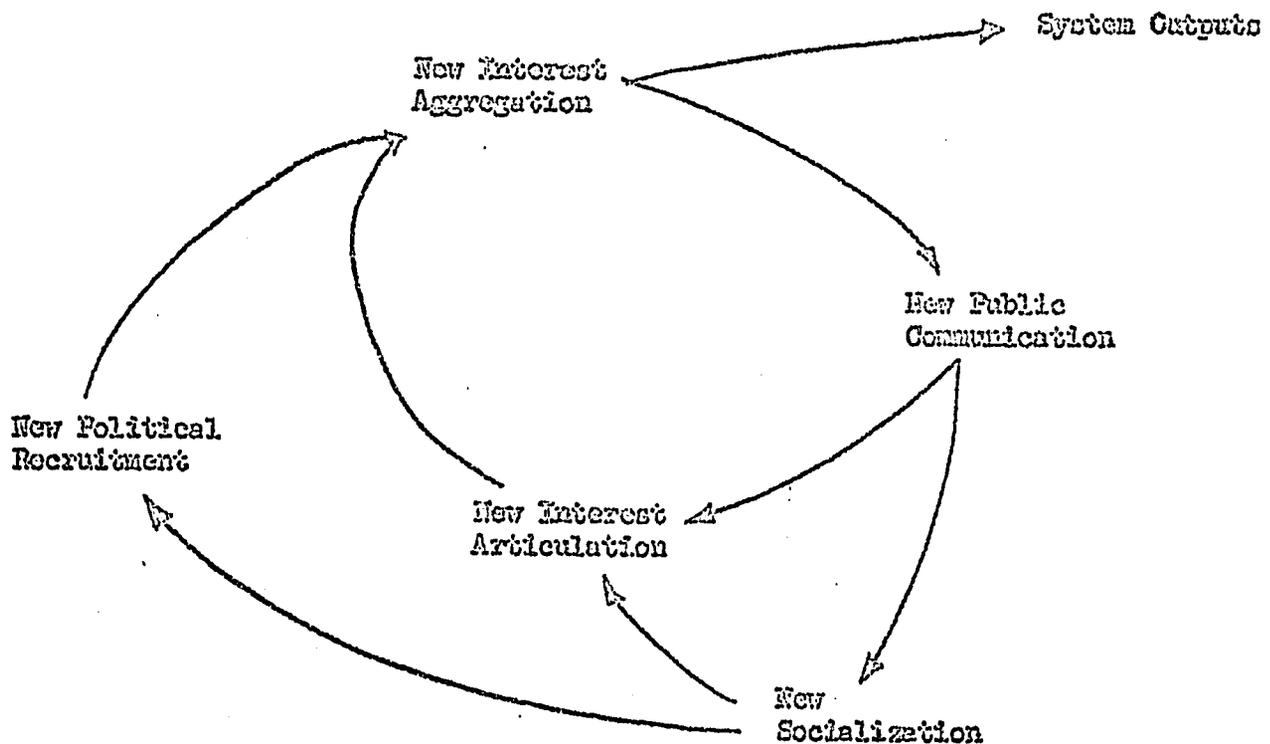
Specialists on economic development appear to be generally agreed on some version of this picture of the break-out from the vicious circle. There is less consensus, however, on the economic policies that will lead most efficiently from the break-out to the self-sustaining growth cycle. Contemporary economic thinking has tended to emphasize two quite different sets of theoretical analyses - which we may characterize as "disequilibria" and "balanced growth" theories - leading to different policies and programs.

It is difficult to resolve the issues between disequilibria and balanced growth on a theoretical level. The arguments rest in both cases on factors extraneous to the economy - i.e., on the values, beliefs, and institutions of a country and, especially, on its capacity to change these psychosocial factors as may be required for sustained economic growth. For example: higher income, even if rapid and substantial, will not necessarily lead to commensurate increases of saving and investment. There are numerous cases where higher income has led only to conspicuous consumption of imported products or to savings that were invested only abroad - hence with no effect on production and growth at home.

The growth cycle, which stipulated what higher income must be coupled with both

higher consumption and investment, is likely to occur only in a society where effort is associated with reward - where saving is likely to compound interest, where investment at home is likely to conjoin personal with patriotic satisfactions (rather than exploit the latter and deny the former). The association of effort with reward comes from the matrix of social institutions, psychological beliefs, political efficiency (in managing public adaption to innovation) within which economic programs are obliged to operate.

This association of effort with reward, of aspiration with achievement, is a communication process. People must learn to make this association in their own daily lives - linking what they see with what they hear, what they want with what they do, what they do with what they get. Communication is, in this sense, the main instrument of socialization, as socialization is, in turn, the main agency of social change. To parallel the economist's model of the growth cycle, we may represent the conditions for an expanding polity and modernizing society as follows (adapting the input functions proposed by Gabriel Almond).



The modernization process begins with new public communication - the diffusion of new ideas and new information which stimulate people to want to behave in new ways. It stimulates the peasant to want to be a freeholding farmer, the farmer's son to want to learn reading so that he can work in the town, the farmer's wife to want to stop bearing children, the farmer's daughter to want to wear a dress and do her hair. In this way new public communication leads directly to new articulation of private interests.

Simultaneously - by analogy with the significant increase of real income that enables both saving and demand to rise simultaneously - new public communication activates new modes of socialization. If new interest-articulation parallels demand, then new socialization parallels saving - the factor that will make possible new investment and, ultimately, the supply of new satisfactions for the new demands. So, while new communication is promoting new articulation of interests among the existing generation, it is also preparing a new generation who will incorporate these interests and go beyond them. The farmer's daughter who wants to show her face is likely to raise a daughter who wants to speak her mind. The farmer's son who wants literacy and a town job is likely to raise a son who wants a diploma and a white collar. Socialization thus produces, ideally, the new man with new ideas in sufficient quality and quantity to stabilize innovation over time.

In order to incorporate innovation efficiently, a society must translate it from private interests into public institutions. An essential step forward must be made from the articulation to the aggregation of private interests - which, when aggregated and accepted in the polity, become the public institutions of a society. It is also necessary that a new process of political recruitment come into operation. Among the newly socialized generation some must be recruited into political life so that the new aggregation of interests into institutions may be accomplished and sustained. So it is that, star-

ting from a breakthrough in communication, reinforced by new ways of socialization (ideas of what one's children may be and practices designed to achieve these aspirations), a new political class is recruited that aggregates the new interests articulated within the society in such fashion as to create its new institutions - its version of modernity.