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INDIVIDUAL MODERNITY AND NON-FORMAL EDUCATION

To the degree that there is a measure of success in a program designed to stimulate development, it is evident that the impact of such programs is not uniform to all individuals to whom the change program is addressed. Whatever or wherever the target population, individuals in it will be dispersed along a continuum from innovativeness to laggardness, from change readiness to change resistance, and, some would assert, from traditionalism to modernity.

The introduction of the concept of "modernity" takes this issue of differential response to change programs out of a context of truism and puts the matter into the center of controversy. It is self-evident that actors who seek new ideas, i.e., actors who are change-oriented, will be more responsive to programs that involve the introduction of new ideas. It is quite another matter, although tempting, to conclude that this differential response can be interpreted in the context of individual modernity, i.e., ". . . [A] set of attitudes, values and ways of feeling and acting, presumably of the sort either generated by or required for effective participation in a modern society."¹

The tenability of the concept of individual modernity is dependent upon the specification of the attitudes and behaviors that differentiate modernity from traditionalism. In this validation

process, there is particular need to distinguish between relatively specific indicators--which may be culture-bound--and variables that are theoretically relevant and that have cross-cultural applicability.

The questions that are asked about the modernity concept are for the most part predicated upon this issue. When the criticism is advanced that modernity, in predominant mode of presentation in the literature, carries a Western, entrepreneurial, ideological bias, these criticisms are generally based more upon the specific indicators used in the measurement process, like the saving and the loaning of money, deferral of gratifications, and commitment to programs of upward social mobility. My own work on the subject is as open to these charges as anyone else's.² It may well be that the data that are at issue in this discussion--because they are sourced in a study designed and executed several years ago³--are conspicuously contaminated by similar biases.

In an earlier paper⁴, I argued that individual modernity might be viewed in terms of four behavioral dimensions (with analogous attitudinal correlates): (1) information-seeking, (2) planning and investment, (3) multi-system participation, and (4) innovativeness. These four dimensions were held to be accumulative and developmental; i.e., information-seeking is a prerequisite to planning, planning a prerequisite to multi-system participation, etc. I noted, additionally, that these four dimensions have a parallel with several and distinct functions of education (formal or non-formal), viz: (1) the awareness

function; (2) the skill acquisition function; (3) the participation function, which involves skill application; and (4) the research function, which is predicated upon the quest for new ideas and characterized by the state of innovativeness.

While I believe such a conceptualization is not without promise, there is still need to attempt placement of the concern for individual modernity into a more parsimonious and theoretically connected framework. In this regard, I believe there is particular promise in the concepts of self-perceived autonomy and the perception of ability and opportunity to influence one's life trajectory. Figure 1 provides a two-axis representation of this view.

(Figure 1 about here)

The vertical axis orders individuals by the degree to which individuals feel dependent upon or constrained by prevailing norms. The heteronomy pole represents an orientation to system, an absolutistic view of the rules of the game and a resistance to change. The autonomy pole is characterized by a recognition of options in life styles and by the perception that such options are subject to individual and independent choice.⁵

The horizontal axis orders individuals by the degree to which existing social structure is perceived to lend itself to individual impact. The low influence pole can be characterized, among other qualities, by fatalism and resignation; the high influence pole by a recognition that change can occur as a consequence of individual inputs into the system.⁶

From a social psychological perspective, the modernization process becomes defined in terms of increasing autonomy and efficacy, with the dotted arrow indicating the direction of predominant long-term change.

The labeling of the quadrants of the model is, of course, open to argument. The labels suggested in Figure 1 are at best tentative and exploratory. At worst, they may be over-simplifications and distortions.

While this concern for individual modernity may not be at the center of our conference concern, its relationship to non-formal education is undeniable. Returning to the assumption expressed earlier, response to non-formal educational programs is a variable; and the central thesis of this paper is that those persons who are in the "modernity quadrant" of Figure 1 will be the most responsive.

The data that I will bring to bear upon this issue are not as direct and full as they might be; there is a post factum and ad hoc quality about them that gives cause for concern. To ignore their relevance, however, might be the greater error.

A Field Experiment In Non-Formal Education

During the period 1963-1966, I directed the Costa Rican phase of a UNESCO-supported, comparative study of communication and rural development.⁷ The experiment involved an assessment of the impact of two non-formal educational strategies, the radio forum and functional literacy stimulation.

In brief summary, the design of the study involved: (1) The selection of fourteen rural communities in Costa Rica. (2) The selection of twenty-three recommended practices in agriculture, health, and education. (3) The interviewing of all heads of households in the fourteen villages in order to obtain knowledge, evaluation, and adoption measures for each of the twenty-three practices, as well as an extensive set of measures on socio-economic, demographic, and attitudinal characteristics of the heads of households. (4) Villages were assigned, on matching basis, to radio treatment, literacy treatment, or control village status. (5) Fifty-two weeks of once-weekly, one-half hour radio forum broadcasts were directed to four of the villages. Fifty-two pamphlets were produced and distributed, one per week, to another four villages. The content of both treatments dealt with the recommended practices, presenting arguments supporting their adoption, including payoff potential and specific practice instructions. The control villages received no direct treatments. (6) Following termination, heads of households were re-interviewed, again for the purpose of obtaining measures of knowledge, evaluation, and adoption of the twenty-three recommended practices. (7) Before-after comparisons were along several relevant dimensions. The before-after measurements were available for 286 heads of households.

The data from this study enable at least preliminary answers to three questions of central concern to this conference:

- (1) Can measurable individual change be effected by a non-formal educational strategy?

- (2) What degree of change can be effected?
- (3) What type of individual is most likely to be affected?

The data suggest that the answer to the first question is that there can indeed be measurable change consequences, although they may not be uniformly dramatic and emphatic. Table I provides change data for forum participants, non-participants, and control villagers in the Costa Rican field experiment. For the nine practices at issue, the differences between forum participants and non-participants are substantial.⁸
(Table I about here)

The comparison of forum participants with control villagers is clouded. The substantial changes favoring forum participants in adoption of selected seed, fungicides, and the mobile health unit are balanced by minor differences in increased use of fertilizers, insecticides, and weed control. At least some of the action that occurred in the control villages may be attributable to (1) the increased attention that the six control villages may have received from other change agencies during the period of our study, (2) a special searching for new ideas by the control villagers--perhaps consequent to perceived exclusion from the experimental treatments and the desire to demonstrate their responsiveness to extension education, and (3) special measurement error.

In any case, comparing forum participants with non-participants enables one to suggest that the answer to the second question ("What degree of change can be effected?") is determinable, and may be significant. For example, agricultural specialists can,

with some confidence, translate selected seed use to increases in production, other things equal. If one adds to the increased production effect of use of selected seed the effect of increased use of fertilizer, insecticides, fungicides, and weed control, the payoff of the non-formal educational program could far exceed the \$8600 actual costs of production, including personnel.

The third question ("What type of individuals are most responsive to a non-formal educational strategy?") touches both social policy and social theory, for it is here that the issue of individual modernity is salient and relevant.

Consider Table II, which again summarizes data adapted from the Costa Rica field experiment and dealing with the correlates of two dependent variables, knowledge and adoption of the twenty-three practices at issue in the non-formal educational program.

(Table II about here)

Firstly, the twenty-one independent variables represent, in my judgment, more than a fortuitous fit with the characteristics of individual modernity discussed earlier. Their conceptual fit with information-seeking, planning, multi-system participation, and innovativeness is evident. Secondly, the variables that provide a measure of conceptual fit with self-perceived autonomy and efficacy (particularly variables 15 through 20) and which bear upon the earlier discussion of modernity (and summarized in Figure 1) provide at least partial and indirect supportive evidence.

Table III presents data from another analytic mode. Using partial and multiple correlation techniques, we can order the independent variables by their interpretative value; i.e., we can rank the variables in terms of which "say most" about knowledge and adoption of the twenty-three recommended practices. The pattern of individual modernity implicit in the ordering of variables is evident enough--and again it is possible to classify the variables along dimensions of information-seeking, planning, participation, and innovativeness. Taken together, and expressed as a multiple correlation value, the variable sets "explain" forty-two per cent of the variance of adoption and forty-eight per cent of the variance in knowledge.⁹

(Table III about here)

Discussion

All this leads to the dilemma which change agents have confronted through all the years of development effort: the populations most in need of reaching are most difficult to reach; they who are most responsive to non-formal programs are those in lesser relative need for such programs.

The dilemma is probably not a true one, for the alternatives are not equally and inflexibly unattractive; there are steps that can be taken to increase the receptivity to new ideas of those who are in greatest need. Taking these steps is largely in the hands of formal organizations in developing societies, and the process of hope is institution building.

If there is validity and relevance to the conceptualization of modernity summarized in Figure 1, then the quadrant labeled "Bureaucracy" may deserve our special concern. Clearly, a formal organization that has become bureaucratized in the worst sense of the word--putting it into the far lower right corner of the quadrant--will be immobilized by its own red tape, insensitive to changing times, unmindful of human needs, and concerned only with the maintenance of itself in a larger bureaucratic struggle.

By contrast, a bureaucracy in the better sense of the word would direct its resources to the task of continuing and controlled change. It would provide a balance between the caution that is born of experience and is settled in positions of power with the adventuresomeness and innovativeness of the young. As it does this, it moves upward along the autonomy dimension and frees itself from the calcifying consequences of singular concern for self-perpetuation.

Formal organizations that fail to keep step with (or some steps ahead of) changing times will invite the populations they should be serving to either attack or retreat. The former response brings chaos, the latter despair and deterioration. Retreatism, as viewed in Figure 1, is both bipolar to and a consequence of excessive bureaucratization. The quadrant might include, as examples, the cult follower, the tenured but inactive professor, and Janis Joplin. They share a degree of resignation and apathy re the larger society.

The central and guiding policy of institutions being built and formal organizations that are being transformed should be

directed toward the stimulation of mobility experiences for a maximum number of people. The mobility rubric obviously covers many (and only superficially different) behaviors: travel to the city; reading the newspaper, book, magazine, or letter; listening to the radio; talking to the school teacher or extension specialist; talking with the child who is a student; or (and most powerful of all) being oneself in the educational experience, in classroom or field.

Lerner argued that, "Mobility is the agent of social change. Only insofar as individual persons can change their place in the world, their position in society, their own self-image, does change occur."¹⁰ My agreement with this notion is on record elsewhere.¹¹

The essence of the role that mobility plays in the modernization process is in the dissociative experiences that mobility generates. Mobility brings awareness of alternative behavioral modes, enabling assessment of their relevance to one's own life; and, given perception of relevance and payoff potential, the final consequence is change.

Footnotes

1. David Horton Smith and Alex Inkeles, "The OM Scale: A Comparative Socio-Psychological Measure of Individual Modernity," Sociometry, Vol. 29, No. 4 (December 1966), pp. 353-377.
2. For example, F. B. Waisanen and H. Kumata, "Education, Functional Literacy, and Participation in Development," forthcoming (1971) in The International Journal of Comparative Sociology; and F. B. Waisanen, "Actors, Social Systems, and the Modernization Process," Carnegie Seminar Publications, Department of Government, Indiana University, 1969.
3. The study is reported in Prodipto Roy, F. B. Waisanen, and Everett M. Rogers, The Impact of Communication on Rural Development, UNESCO-NICD, 1969.
4. Waisanen and Kumata, loc. cit.
5. From a social structural perspective, the vertical dimension would relate to the degree to which the structure is conducive to making alternatives available and encouraging independent choice among options.
6. The horizontal dimension, again in a structural context, represents something like a "reality line", and would reflect the degree to which a system is responsive to change.
7. The trans-national comparison was with India. See Roy et al., op. cit.
8. The decision to measure change as a "percentage of change possible" was based upon the central need to assess the differential impact of the experimental treatments. Were one interested primarily in total impact on, say, agricultural productivity, other change measures may have been more appropriate. For a discussion of this issue, see Roy et al., ibid., p. 41; and Carl I. Hovland et al., "A Baseline for Measurement of Percentage Changes," in P. Lazarsfeld and M. Rosenberg (eds.), The Language of Social Research (New York: Free Press of Glencoe, 1955), pp. 77-82.
9. These data are not a fair sample of the full pattern of findings that emerged from the study. Indeed, the overall effects were discouraging. For example, we were not able to show effects in inter-village comparisons. The crucial anticipation that there might be a "spin-off" effect, i.e., that forum participants would be influential agents in the continuing idea diffusion process in the experimental villages was not realized. So, a more appropriate answer to the question, "Can measurable change be effected by non-formal strategies?" might be, "Yes; but it isn't easy."

10. Daniel Lerner, "Toward a Communication Theory of Modernization,"
in L. Pye (ed.), Communication and Political Development (Princeton:
Princeton University Press, 1963).
11. Waisanen, loc. cit.

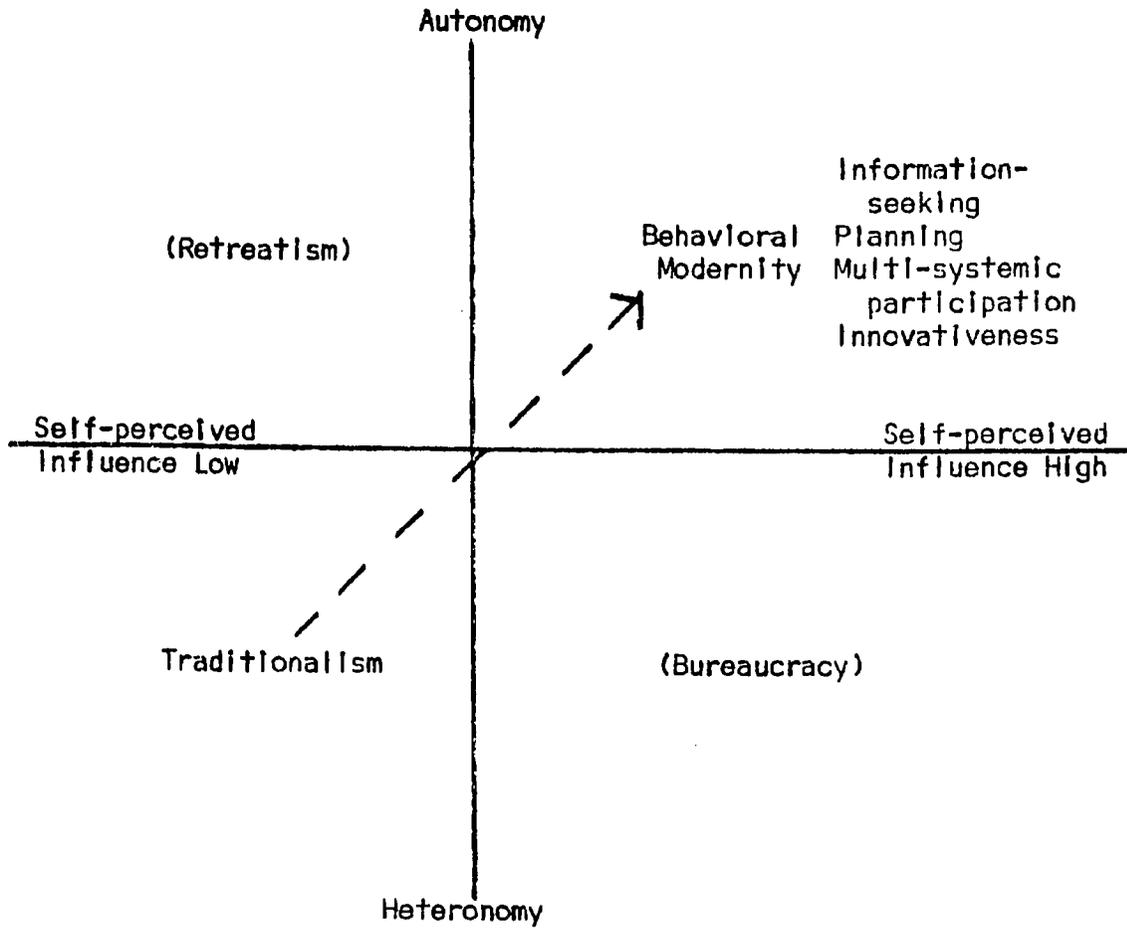


Figure 1.--A Two-Dimension Conceptualization of Individual Modernity

TABLE I

IMPACT OF A NON-FORMAL EDUCATIONAL PROGRAM UPON ADOPTION
OF SOME RECOMMENDED PRACTICES IN AGRICULTURE, HEALTH,
AND SOCIAL EDUCATION*

Recommended Practice	Changes in Adoption Rates (as a percentage of change possible) Attributable to Experimental Treatments		
	Forum Participants	Non- Participants	Control Villagers
Seed Selection	32	0	- 2
Fertilizers	51	10	40
Insecticides	29	0	26
Fungicides	27	3	5
Weed Control	45	0	37
Boiling Water	29	7	18
Using Mobil Health Unit	31	8	10
Loans	39	- 2	22
Cooperatives	11	-13	3

*Adapted from P. Roy, F. B. Waisanen, & E. M. Rogers, The Impact of Communication on Rural Development: An Investigation in Costa Rica and India (Paris: UNESCO, 1969), p. 53.

TABLE II
CORRELATES OF KNOWLEDGE AND ADOPTION
IN COSTA RICA*

Independent Variables	Dependent Variables	
	Knowledge	Adoption
1. Education . . . . .	.36	.31
2. Educational Aspirations for Son	.33	.33
3. Literacy . . . . .	.33	.21
4. Income . . . . .	.27	.35
5. Organization Membership . . . . .	.20	.20
6. Mobility . . . . .	.32	.41
7. Contact: Agricultural (Index).	.45	.55
8. Contact: Social, Educational (Index) . . . . .	.37	.45
9. Contact: Neighbours . . . . .	.42	.37
10. Mass Media Use . . . . .	.46	.46
11. Newspaper Reading . . . . .	.41	.33
12. Radio Use . . . . .	.22	.14
13. Channel Evaluation Change Agents . . . . .	.28	.29
14. Channel Evaluation Mass Media . . . . .	.32	.29
15. Modernity . . . . .	.35	.30
16. Self-Autonomy . . . . .	.18	.21
17. Ease of Self-Change . . . . .	.17	.22
18. Self-Concept Innovative . . . . .	.26	.33
19. Perception of Innovative Climate	.18	**
20. Risk Orientation . . . . .	.18	.27
21. Forum Participation . . . . .	.26	.35
Opinion Leadership . . . . .	.30	.38

*Adapted from P. Roy, F. B. Waisanen, & E. M. Rogers, The Impact of Communication on Rural Development: An Investigation in Costa Rica and India (Paris: UNESCO, 1969), p. 56.

TABLE III

PREDICTION OF TOTAL KNOWLEDGE AND ADOPTION
IN COSTA RICA BY STEP-WISE MULTIPLE REGRESSION ANALYSIS*

Independent Variables	Partial Correlation	Percentage of Variance Explained in the Dependent Variable
I. TOTAL KNOWLEDGE		
1. Forum Participation . . . . .	.117	2
2. Education . . . . .	.270	8
3. Radio Use . . . . .	.147	2
4. Modernity Index . . . . .	.221	6
5. Agricultural Contact . . . . .	.209	8
6. Educational Contact . . . . .	.121	4
7. Newspaper Reading . . . . .	.164	6
8. Contact with Neighbours . . . . .	.137	4
Percentage of Total Variance		42
II. TOTAL ADOPTION		
1. Mobility . . . . .	.183	6
2. Forum Participation . . . . .	.200	5
3. Education . . . . .	.239	6
4. Agricultural Contact . . . . .	.343	17
5. Educational Contact . . . . .	.196	7
6. Self-Concept in Innovative- ness . . . . .	.170	4
7. Risk-Orientation . . . . .	.128	3
Percentage of Total Variance		48

*Adapted from P. Roy, F. B. Waisanen, & E. M. Rogers, The Impact of Communication on Rural Development: An Investigation in Costa Rica and India (Paris: UNESCO, 1969), p. 58.