PSR 21(1973): 239–43

SOCIOCULTURAL INNOVATION AND DEVELOPMENTAL CHANGE

E. WALTER COWARD, JR.

February 22, 1973

Rural development is dependent upon innovation in two areas, namely, technology and social organization. For the first kind of change the diffusion model has proven successful, but for the second the so-called social-learning model is likely to be more appropriate. In the latter approach the end-users themselves design and adapt the innovation they use. Both models are considered and their advantages weighed.

The process of rural development is dependent upon innovations both in technology and social organization. In general, the technological innovations associated with rural development are the creation of specialized organizations of government, private foundations, and private industry. In any case, such innovations are seldom the direct product of the rural people themselves. With technological innovations there is a differentiation of roles between designers and users. The integration of these specialized roles is achieved, more or less successfully, by a variety of activities that may be broadly labeled as "extension." This strategy of innovation can be referred to as the *diffusion model.* The diffusion strategy is often applied as well when developmental change involves sociocultural innovations. This results in a "social engineering" strategy which also attempts to separate the tasks of innovation designing from innovation using.

The general thesis of this discussion is that the diffusion model of innovation, while relatively successful for technological change, has important limitations when applied to sociocultural innovations. An alternative, the *social learning model,* is presented and discussed.

The Diffusion Strategy of Innovation

To say that technological innovation in rural development occurs by way of a diffusion model is not to ignore the obvious point that technological innovations first have to be invented. Rather, it is meant to emphasize the point that technological innovations are developed by a group of specialists who are functionally separated from the innovation adopters or users, and that this strategy of innovation is highly dependent upon the diffusion of these innovations from what Coughenour (1968) has called the "innovative system" to the "practitioner system." Even though there are numerous barriers to the rapid and even flow of technological innovations from inventors to users, this process of technological innovation is widely accepted as effective.

In fact, this process of technological innovation is so widely accepted that it is frequently applied to the process of sociocultural innovation. When applied to sociocultural innovation this strategy results in new forms of social organization, or social relations, either being "discovered" in some outside group or "invented" by some social planner and subsequently diffused to potential users. One relevant example of this approach is the pre-martial-law land reform code which suggests that farmers should pursue certain types of activities within the framework of cooperatives and, even more specifically, that such cooperative patterns should follow the model of the *moshav.* Thus, as with technological innovations, there is a separation of designers and users.

However, the diffusion model for sociocultural innovations may have two important limitations. First, as Lenski (1970) suggests, people are more conservative in trying and accepting sociocultural changes than technological ones, because the latter frequently are seen as instrumental and/or because the effects of the former are less subject to calculation and comparison. Second, the success of a sociocultural innovation may be dependent upon so many more location-specific variables that the separation of the designing and using tasks results in a considerable loss of information necessary for the creation of effective and acceptable sociocultural innovations.[1]

What seems necessary are strategies that integrate the roles of designer and user not only for the purpose of moving information from the former to the latter, as with the diffusion model, but also for achieving a flow in the opposite direction. In some cases it may be possible to achieve this integration by combining these two roles so that the users are also the designers of sociocultural innovation. Two illustrations may suffice.

The water guard in the Philippines.[2] In some irrigation systems operated by the National Irrigation Administration (NIA) small groups of irrigators located far from the main canals and laterals have joined together to hire someone to perform the role of water guard. The water guard has the responsibility to patrol the canal which delivers water to this group whenever water delivery is scheduled. His patroling prevents the stealing of water by those with fields along the delivery route. For this service the irrigators agree to pay the water guard a fee approximately equivalent, and in addition, to the fee paid to the NIA.

This sociocultural innovation was planned by the end-users, the irrigators themselves. It represents a developmental change in that it increases the adaptation of these irrigators to the unique environmental conditions which they face, the primary dimension being distance from the water source. It is unlikely that planners working in the NIA would have designed an innovative procedure for controlling water which would increase the cost of the water to the irrigator. The usual difficulties that the NIA experiences in the collection of irrigation fees would have made such a suggestion seem unreasonable. Nonetheless, it is a procedure currently being practiced by some irrigators.

Group farming in Japan. The rapid outlfow of labor in Japanese agriculture has forced farmers to consider alternative forms of farm management, particularly with regard to water management and the use of machinery. One alternative that has evolved is group farming. In its simplest form: "Each farmer does his own farming, but there is group agreement as to varieties, timing, and methods of cultivation" (Kanazawa 1972: 320).

There are two interesting aspects of group farming relevant to our discussion. First, it is an innovation planned by the users, or as Kanazawa writes (1972: 328), "a spontaneous movement initiated by farmers for their own sake." Second, since the users are the designers, the actual form of group farming varies from district to district depending upon local conditions. It is this "elasticity" that is sometimes lost when the designer and user roles are not integrated.

The Social Learning Strategy

The ability to invent and apply sociocultural innovations requires some group capacity for what Dunn (1971) calls *social learning.* Social learning is characterized as an "iterative exploratory series of experiments in social action" (Dunn 1971: 133) or as "evolutionary experimentation." In this process some new form of social behavior is proposed to improve the attainment of group goals. It is carried out in the social setting of the designers, and its perceived results influence the acceptance or discontinuance of the innovation.

This capacity for social learning may vary across groups, or for the same group over time. It is also subject to behavioral amplification through organization. Therefore, as Dunn (1971: 221) notes "it matters a great deal ... how behavior directed to changing behavior is provided with social organization." Dunn also asks the important question (1971: 135), "How does one organize and manage those aspects of behavior directed to changing behavior?"

These notions of Dunn translate into the following specific problems of interest to rural development. How can various pluralities of people in the rural sector be organized so as to improve their capacity for social learning? Social learning refers to a process whereby groups of rural people design for themselves sociocultural innovations intended to increase their ability to achieve certain group and individual goals. I believe there is sufficient evidence, both in the Philippines and elsewhere, of nascent efforts at social learning in the rural sector. There is both a need to better understand these "natural" attempts at sociocultural innovation and to assist them when possible.

The basic steps in the social learning strategy are hypothesized to be as follows (also see Table 1): (1) groups are formed to consider sociocultural problems; (2) sociocultural innovations are designed; (3) these innovations are legitimized, tried, and monitored; and (4) a decision regarding the effectiveness and acceptability of the innovation is made.[3]

Two components of this process need special mention. First, the designing of sociocultural innovations refers to the process of identifying and specifying an alternative set of desirable and expected behaviors that are to occur in specific situations and with specific results. While such alternatives may be based on patterns developed elsewhere it is important that such diffused patterns be scrutinized for their adaptive requirements. The success of the designing phase will be dependent in part upon the free flow of communication within the social learning group, so that all aspects of the design are "mentally evaluated."[4]

An example of this process is illustrated in the following case. A small group of 35 irrigators recently formed themselves into an association. This group is served by four laterals, so the irrigators decided to elect a lateral head from among the subgroup of farmers served by each lateral. In the initial selection process only a small portion of farmers represented Lateral A and their choice proved unsatisfactory to the larger group of Lateral A farmers for the following reason. The original group selected as their leader a man who farmed two plots, each served by a different lateral. The larger group reasoned that such an individual would create problems because of his occasional unavailability and his divided interest in the problems of Lateral A. Therefore, they elaborated a new behavioral rule that a lateral head should be one whose land is served only by the lateral that he represents, and applied the rule by electing a new lateral head. Such feedback and adjustments are

Table 1

Stages in the innovation process: A comparison of the diffusion strategy and the social learning strategy

Diffusion strategy	Social learning strategy
1. Awareness of a problem	1. Awareness of a problem
2. Information about a relevant innovation	2. Designing a relevant innovation
3. Evaluation of the relevant innovation	3. Legitimizing and implementing the designed innovation
4. Trying the relevant innovation	4. Monitoring the results of the innovation
5. Decision about the relevant tested innovation	5. Making necessary adjustments in the innovation
	6. Decision about the designed and tested innovation

an essential part of the social learning strategy at both the design and implementation stages.

The second component that needs special mention is that of monitoring results. As Dunn (1971: 134) notes, the process of evaluating novel social action is frequently inefficient, partly because such innovations are not seen as needing action testing.

> Man has a strong tendency for self-deception concerning the efficiency of his social nostrums. Even where free from self-deception, those who are engaged in initiating a change in behavior often feel it necessary to represent the change proposal as a certified cure for social ills or as a certified instrument in social gain (Dunn 1971: 134).

In addition, one might add that even without these perceptions the social learning group is left with the technical difficulties of evaluating the effectiveness of the sociocultural innovation, given the usual problems of the timing of effects and the diversity of effects. Nevertheless, unless some attempt is made to identify positive effects and create a consensus concerning them, there is a high probability that the innovation will fail to become an integral part of the social setting.

Men will continue to engage in behavior which they perceive to have desirable consequences. Since the consequences of some social innovations will follow an intermittent and/or delayed reinforcement schedule, it is important that the participants in the new behavior be made aware of such expected and achieved reinforcements. Of course, the monitoring of sociocultural innovations is not intended to have only a propaganda function; it is also to be used for in-process modifications that correct deficiencies in attaining stated objectives.

The detailed techniques for accomplishing this monitoring task are not well understood at present and efforts are needed to evolve such techniques in field settings.[5]

Summary

Developmental change in rural areas is a process that requires continuing sociocultural innovation. It is suggested that to achieve such innovation more attention should be given to social learning as an innovation strategy alternative to the diffusion strategy. The social learning strategy provides a close integration of the innovation-designing and innovation-using tasks. Such integration is considered especially important for achieving sociocultural innovation and is typically absent in the diffusion strategy.

The social learning strategy is a process in which the ultimate users are intimately involved in the design, evaluation, and modification of the innovation. While there are various examples of such innovation strategies occurring in rural areas (e.g., the water guard and group farming activities) we know relatively little about how to organize people to improve their capacity for social learning. Further examination of "natural" social learning episodes and more field experience with contrived social learning groups are required.

Notes

At the time he presented this paper, the author was director of research at the International Institute of Rural Reconstruction, Silang, Cavite. As of July 1974, he was assistant professor of rural sociology, Cornell University. Dr. Coward received the Ph.D. in sociology from Iowa State University (1969).

1. I do not mean to appear naive about the problems involved in separating these functions for technological innovations. The fact that technological innovations frequently go through an adaptive period when first used by practitioners is important to note.

2. I have discussed the role of the water guard in more detail in an unpublished paper (Coward 1972).

3. While such a process may sound suspiciously similar to the community development approach of an earlier decade, that approach has evolved so many theoretical and operational limitations that it should be considered unrelated to the social learning strategy. For a provocative discussion of these limitations see Erasmus (1968).

4. This may be seen as corresponding to the evaluation stage in the adoption process or what has elsewhere been described as symbolic adoption (Klonglan and Coward 1970).

5. For some suggestions on this see Colin (1971).

References

Colin, Roland
1971 Education from within. Ceres 4(3): 41–45.

Coughenour, C. Milton
1968 Some present problems in diffusion from the perspective of the theory of social action. *In* Diffusion research needs. Columbia, Missouri, Agricultural Experiment Station. Pp. 5–14.

Coward, E. Walter, Jr.
1972 A farmer solution to water control in Philippine irrigation systems: The role of the water guard. Cavite, International Institute of Rural Reconstruction. (Mimeographed.)

Dunn, Edgar S., Jr.
1971 Economic and social development: A process of social learning. Baltimore, John Hopkins Press.

Erasmus, Charles J.
1968 Community development and the encogido syndrome. Human Organization 27(1): 65–74.

Kanazawa, Natsuki
1972 Group activities in the mechanization of rice farming. *In* Farm mechanization in East Asia. Herman Southworth, ed. New York, The Agricultural Development Council. Pp. 219–330.

Klonglan, Gerald E., and E. Walter Coward, Jr.
1970 The concept of symbolic adoption: A suggested interpretation. Rural Sociology 35(1): 77–83.

Lenski, Gerhard
1970 Human societies: A macrolevel introduction to sociology. New York, McGraw-Hill.

SOCIAL WORK

OFFICIAL PUBLICATION OF THE PHILIPPINE ASSOCIATION OF SOCIAL WORKERS

Volume 18 Numbers 1 and 2 January-June 1973