# The Innovator's Situation

*Upper-Middle-Class Conservatism in Agricultural Communities*

Frank Cancian

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## *Upper-Middle-Class Conservatism in Agricultural Communities*

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# *Introduction*

This study relates risky, innovative behavior to social position. Its empirical focus is the adoption of agricultural innovations; and information on the behavior of more than 6,000 individuals living in eight countries is used to test the principal hypotheses. Most of those studied are peasants in third-world countries, but many relatively prosperous family farmers in the United States are also included. The conclusions apply to them as well as to the peasants.

The theoretical focus of the study is social stratification. The primary goal bridges the empirical and theoretical foci: it is to assess the relationship of economic rank and innovation. In particular I will question the idea that higher-ranking people are more innovative than lower-ranking people. Both the social nature of economic rank and the identification of the social system in which rank is held prove to be crucial in this effort, and they are discussed at length in both general and specific terms. It will be shown that an understanding of farmers' behavior is greatly enhanced by clarification of a few simple conceptual issues; and that these abstractions can in turn be evaluated in terms of their usefulness in understanding farmers' behavior.

The results are also relevant to assessing the role of information and the role of uncertainty in the adoption of new farming practices. In particular it is found that the relation of rank to adoption changes as the degree of risk and uncertainty change. Since the theoretical focus here is on social processes, they are emphasized. The conceptual and theoretical niceties concerning information, risk, and uncertainty to which the findings are relevant make little or no difference to the discussion of rank

and innovation. Thus, they are treated in separate papers (Cancian 1979b, Cancian n.d.).

This chapter highlights some practical implications of the study and some conceptual issues that are useful as orientation to the detail that follows. For a fuller overview of the general issues, the conclusions and implications (Chapter 7) should be read before Chapter 2.

### *Upper-Middle-Class Conservatism and Innovation in Agriculture*

Specifically, I am interested in the relation of a farmer's wealth, or his economic rank within his community, to his inclination to adopt new farming practices. The received wisdom is that larger farmers are more likely to innovate than smaller farmers, that the richer you are the more likely you are to adopt new farming practices.

What follows shows that it is a great oversimplification to say that "wealth and innovativeness appear to go hand-in-hand" (Rogers and Shoemaker 1971: 187). The evidence presented in this book makes it clear that under many conditions the relation of economic rank and innovation within a farming community is more like that shown in Figure 1. That is, the richest or highest-ranking farmers in a community, whether in India, Japan, or Missouri, are most likely to be among the first to adopt, and the poorest farmers are least likely to be among the first to adopt. But, in the broad middle range of farmers who are neither rich nor poor by local standards, the group that might be identified as the "lower middle class" is more likely to adopt early than the group that might be identified as the "upper middle class." I have labeled this pattern "upper-middle-class conservatism." Just when and why it is so, and when and why it is not so, will occupy most of the pages that follow.

Here I want to briefly discuss some practical implications of the principal finding, for part of the justification for all the attention I am giving to the relationship between rank and innovation is that different policies are suggested by the alternative conclusions about its shape. Thus, it seems appropriate to specify some of those differences at the outset.

There are many reasons why current programs designed to

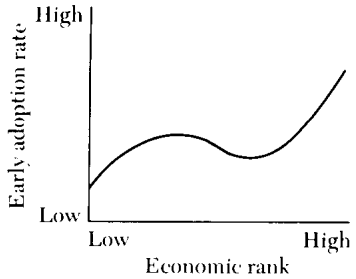


***Fig. 1.*** *The relation of economic rank and early adoption of new agricultural practices*

help the small farmer may end up aimed at upper-middle-class farmers. Principal among them is the fact that, in many less-developed countries, these farmers appear to be the only ones except the rich who have viable commercial farming operations. If such programs fail to induce adoption among the upper middle class, the received wisdom leads to the conclusion that programs and policies designed to give the lower middle class access to new agricultural practices are even more certainly doomed to failure. This follows from the dominant idea that the tendency to innovate increases in an essentially linear fashion with wealth or economic rank.

The results presented below show that the curve displayed in Figure 1, not a positive linear function, is the best description of the relation of wealth or economic rank and the tendency to innovate. Given this fact, the failure of a program designed for what amounts to the upper middle class cannot be taken as evidence that poorer local farmers will resist or reject new practices. Farmers poorer than the upper middle class may still respond very positively to programs appropriate to their scale of operations. In fact, the findings suggest that lower-middle-class farmers are more likely to adopt new practices than are upper-middle-class farmers.

The relation described in Figure 1 and the resultant policy implications stand even after careful consideration of all the complicated details that follow. Nevertheless, it is important to avoid confusion about what is really demonstrated, to clarify the use of terms like "wealth," "rank," "early adoption," and

"innovation," and to reconcile the limited evidence brought to bear here with the massive accumulation of studies that support the received wisdom. In addition, to say that the upper middle class is conservative without showing that such behavior is understandable for any person in such a situation is to contribute to stereotyping without increasing the potential for positive social change. This study tries to make it clear that conservatism makes good sense for anyone in the situation of an upper-middle-class person.

### *The Innovator's Situation*

The basic orientation here sees people as similar and their social situations as different. In this study it is the variance in situations that ultimately explains variance in people's behavior. The contrasting approach sees many diverse people in similar situations, and it is the variance in personal characteristics that ultimately explains variance in behavior. People become the carriers of characteristics rather than the occupants of roles and statuses. While it is easy to write and read these simple sentences, it is difficult to keep this distinction and its implications in mind. Thus, I want to briefly explore the meaning of the "situational" approach in general, and its application in the study of the spread of innovation in particular.

In a sense, I am just stating that I will take a sociological approach. Years ago Merton and Rossi said: "That men act in a social frame of reference yielded by the groups of which they are a part is a notion undoubtedly ancient and probably sound. [Sociology] has always been centered on the group determination of behavior" (1957: 234). At the same time they pointed out the lack of productive use of this orientation.

> Thus, half a century ago, DuBois noted that "A white Philadelphian with $1,500 a year can call himself poor and live simply. A Negro with $1,500 a year ranks with the richest of his race and must usually spend more in proportion than his white neighbor in rent, dress and entertainment." But though the specific fact that self-appraisals are *relative* to "the" group framework was often remarked, it was not conceptualized in terms general enough to lead to systematic research on the implications of the fact. (1957: 276, emphasis in the original.)

Merton and Rossi made these observations in the discussion of the reference group concept, which, over the years (Schmitt

1972), has come to specifically refer to groups of which the actor is not a member (that is, nonmembership groups). The more general sociological emphasis taken by DuBois, and underutilized by others, concerns groups or societies of which the actor is a member. This latter orientation is the one followed here.

On the face of it, this approach should be easy to follow. Yet, as the remarks by Merton and Rossi suggest, the basic importance of position within the group or society often slips away. This certainly has been true in the long rural sociology tradition of attention to characteristics of adopters and adopter categories. The tendency to see sociological characteristics as adhering to individuals is especially evident in the first edition of Rogers' famous synthesis of the field, *Diffusion of Innovations*. Age, education, social status, and financial position are included under the heading "personal characteristics" in the description of the characteristics of adopter categories (Rogers 1962: 171–175). By the later edition of the book, these characteristics of adopters are included under the heading "socioeconomic characteristics," which is distinguished from "personality variables" (Rogers and Shoemaker 1971: 185–187). It is also true that the dependent variable in adoption studies is often conceptualized as innovativeness, an individual characteristic. On the other hand, Lionberger, in his earlier general book on the adoption process, lumps age, education, and "psychological characteristics" under "personal factors" and calls farm income, size of farm, and tenure status "situational factors" (1960: vi).*

The tradition of diffusion research is presently being criticized because of its focus on the individual (Goss 1977), but a principal active alternative is critical focus on corporate farming and what is called "the structure of agriculture." In the long run I fear this new emphasis may end up as a focus on big "individuals" as compared with small individuals. While this focus is crucial to currently important social criticism, it is in danger of shifting the old template to corporate agriculture. This would produce knowledge about the characteristics of corporations that is parallel to the knowledge about the characteristics of individuals produced by the diffusion research tradition that is being criticized. I hope the structure of agriculture approach

*Lionberger's use of "situation" in a way that is, in general terms, similar to the use intended here, goes back to his earlier publications on Missouri farmers (1948, 1952).

will concentrate on the position of corporations within the larger economic system.

In this book I attempt to avoid these difficulties. I will concentrate on (relative) rank and give attention to the sociologically meaningful limits of the society or group within which rank is held. These two elements, rank and "community of reference," are at the core of this look at the innovator's situation.

A number of the substantive and methodological implications of the situational approach used here are illustrated by the single application pictured in Figure 1. For example, it will become apparent that the people at the top and bottom of the community ranking scale are influenced by their proximity to the ends of the scale. Thus, we need to know the community of reference so that we can identify the ends of the scale. This need contrasts sharply with the requirements of a "linear" theory, for a straight line should be sliceable at any point without significant diminution of the predicted effects. Thus, identification of the ends is less important. In addition, because of the curvilinear relations between the major variables, certain ordinal measures and crosstabular statistical analysis prove themselves preferable to interval measurement and regression analysis, which are conventionally considered more powerful. The scale of the variables becomes an important substantive and methodological issue.

On the policy side the situational approach has immediate general implications. First, it "blames" the situation, not the victim. Thus, it is not supportive of policies that seek to improve the character or characteristics of some part of the population in the (implicit) hope that everyone, or almost everyone, can be brought above some poverty line. This is so because the situational approach emphasizes the inherently relational nature of many important phenomena. This stress on the relational also suggests pessimism about widespread improvement of individual situations without change of the system.*

### *Some Previous Uses of "Situation"*

"Situation" has been used in a number of senses in social science over the years. Inevitably, each subsequent use bor-

*For a discussion of some of these issues in relation to industrial societies, see Cancian 1979a and Hirsch 1976.

rows a bit from the previous ones. While I cannot survey past uses or fully explore the complex of interrelated meanings, I do want to review some basic meanings that help to clarify my purpose in this book. The reader who is not interested in the intricacies of social science terminology should skip to the last paragraph of this section.

Recently in psychology and anthropology the term has been associated with withdrawal from trends towards rigid monodeterministic approaches. That is, it has been associated with "the recognition that complex human behavior tends to be influenced by many determinants and reflects the almost inseparable and continuous interaction of a host of variables . . ." (Mischel 1977: 246). Mischel ends this sentence with the words "in both the person and the situation" because he is a psychologist dealing with the implications of his own findings that personality traits as commonly measured cannot be taken as good predictors of behavior across situations.

A parallel interaction between the complexity of human behavior on the one hand and simple isolatable principles on the other is found for anthropology in van Velsen's characterization of the relation of structural analysis and situational analysis:

> The "structural frame of reference," according to Fortes (1953, p. 39), "gives us the procedures for investigation and analysis by which a social system can be apprehended as a unity made up of parts and processes that are linked to one another by a limited number of principles of wide validity in homogeneous and relatively stable societies." (van Velsen 1967: 131.)

The extended case method and situational analysis promoted by the Manchester school (for example, Mitchell 1956, Turner 1957, van Velsen 1964, with Gluckman as leader) attempts

> to show how the unique, the haphazard and the arbitrary are subordinated to the customary within a single, if changing, spatio-temporal system of social relations . . . to show how the general and the particular, the cyclical and the exceptional, the regular and the irregular, the normal and the deviant, are interrelated in a single social process. (Turner 1957: 328, quoted by van Velsen 1967: 148.)

In both the psychological and anthropological approaches there is a "contextualism" in which the established variables are seen as too simple to survive the complexity of the "actual" situations. Any general abstract rule or basic relationship of

variables is seen to operate in the context of less abstract and less general rules and local peculiarities; and these contextual features, about which no generalizations are asserted, are seen as crucial to the behavioral outcomes. "Situation" used in this contextual sense represents a withdrawal from abstraction and explicit generalization.

In sociology and social psychology the symbolic interactionists have a long tradition of attention to "definition of the situation." Their usage has aspects of both: 1) the contextualism seen in the psychological and anthropological uses discussed above, and 2) a focus on the actor's point of view in both relational and cultural terms. Here I would like to use part of the latter aspect and none of the former.

In sum, I hope to use the word "situation" to emphasize the need to avoid individualistic explanation in terms of personality traits, and similarly to emphasize the need to attend to the local definition of the relevant other people. I do not want the word for its suggestion that context and local detail are important. While this is true, in this study I want to generalize. Thus, the use of "situation" to suggest that things are complicated will not help.

### *Issues of Procedure and Style*

The chapters that follow are organized in a traditional way. Chapter 2 states the theory. Chapter 3 describes the data available to test the theory. Chapter 4 discusses measurement of the independent variable, and Chapter 5 does the same for the dependent variable. Chapter 6 presents the tests of the hypotheses; and Chapter 7 states the conclusions and implications of the study. A number of appendices amplify and document complexities encountered along the way. This organization is satisfactory because it gives a clear outline to the analysis and fits with the relatively brief discussion of general issues in the first and last chapters. I find it preferable to discuss general issues along the way, as the concrete problems of analysis are available to illustrate them.

Before beginning, I want to express the anthropologist's lament: I am torn between the details of each case and my effort to generalize across the world that is represented here by data

from many countries. There is no solving this problem. From my own fieldwork in Mexico I happen to know the kinship position and personal situation of a half dozen or so of the hundreds of individuals who end up classified as high middle rank in this study. These characteristics of their local social and personal situations suggest alternative explanations of the behavior patterns predicted by the general theory developed here. As I see it, these alternative explanations add to, but do not detract from, the understanding offered by my general theory.

*Chapter Two*

# *Rank and Innovation: The Theory*

Why is the upper middle class conservative? The preview of conclusions given in Chapter 1 shows an unusual dip in the curve describing the relation of rank and innovation. Both low-middle-rank farmers and high-rank farmers seem to innovate more than the high-middle-rank group. In this chapter I will lay out the theory which explains this unusual pattern and specify the hypotheses that will be tested in Chapter 6.

The theory presented below has a history. It has been stated in relatively formal terms in two places (Cancian 1967, 1972); and that formal version has been subjected to thorough comment and criticism (Gartrell, Wilkening, and Presser 1973; Morrison 1973; Morrison, Kumar, Rogers, and Fliegel 1976; and Gartrell 1977). The formality of the original statements produced implications that might otherwise have been missed, and the comments and criticisms led to significant modifications that are noted in this and subsequent chapters. On the whole it seems pointless to burden the reader with yet another formal exposition. What follows in this chapter is thus in many ways less formal and less detailed than earlier statements of the theory. This statement, like previous ones, is meant as a general theory relating rank to risk of resources relevant to gaining and maintaining that rank; but, as before, it is often easier to express the basic ideas in concrete terms directly relevant to the agricultural innovations that are the empirical focus of this study.

### *Basic Considerations*

At the outset I will assume that it is in the nature of stratification systems for any individual to prefer high rank to low

rank. Most of the theory flows from this proposition and from the idea that the possibility of achieving higher rank is often the motivation for innovation. The particular shape of the relationship between rank and innovation derives from specification and modification of these basic ideas and the conceptions of rank and innovation themselves.

Rank relative to other people in the stratification system indicates control of resources; economic rank indicates control of economic resources. Innovation, as it is defined here, involves the investment of resources in a situation where the return to investment is not certain. In common-sense terms, the innovator, almost by definition, takes a risk, for he or she does not know exactly how the practice will work. This theory concentrates on innovations involving risk of the very resources on which the ranking system is based. For the study of agricultural innovation this translates very simply into the risk of money on new practices that might produce money enough to raise the actor's economic rank.

Both rank and innovation involve important conceptual and definitional problems. For rank these include both the definition of the social system within which rank is seen to operate, and the relative nature of rank within that system. These issues are covered in Chapters 3 and 4 respectively. For innovation the major problem concerns the distinction between the emphasis on information diffusion in the rural sociology tradition and the emphasis on uncertainty in the approach developed here.* Chapter 5 is devoted to innovation. In all cases, the delay of the conceptual discussion until we are more familiar with the concrete cases simplifies that discussion. And in no case does the delay hamper the exposition of ideas in this chapter.

The basic theoretical elements are set out in the next three sections: The Inhibiting Effect of Rank, The Facilitating Effect of Wealth, and The Curvilinear Effect. These abstract elements are then combined to make predictions from the overall theory; and the predictions are briefly illustrated and discussed. Since the exposition proceeds from the very abstract to the very con-

*In this discussion the concepts "risk" and "uncertainity" are not distinguished. The implications of this study for potential distinctions between them are discussed in Cancian 1979b.

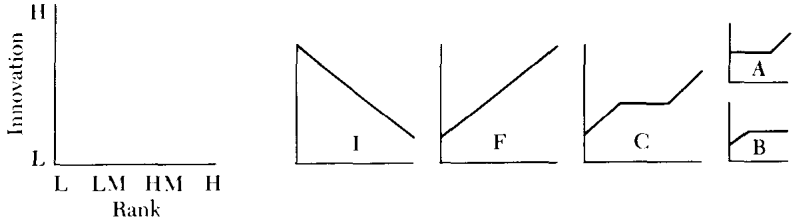


***Fig. 2.*** *Inhibiting, facilitating, and curvilinear effects in the abstract*

crete, those who prefer the opposite order may want to look at the final section of the chapter before continuing.

### *The Inhibiting Effect of Rank*

The first element in the theory is the idea that high rank inhibits innovation because people of high rank have more to lose and less to gain from a random change in rank. That is, for them there are more ways to lose than to gain rank. At the outset, when little is known about the results a new practice will produce, it makes sense for the high-ranking person to avoid the risk. When uncertainty is high, high-ranking people should seek to maintain their rank while low-ranking people should seek to gain rank. For low-ranking people, a random change in rank is more apt to be for the better.

This specification of the basic considerations leads to the conclusion that, all other things equal, persons of higher rank will innovate less than persons of lower rank. This is the first element in the overall theory of the relation of rank and innovation. It is illustrated as the I curve in Figure 2. The inhibiting effect of high rank is only one of the things contributed by rank to the behavior of innovative and noninnovative actors. Actual behavior cannot be predicted until we have added two more elements to the theory.

### *The Facilitating Effect of Wealth*

On the other hand, wealth facilitates innovation. Innovations cost money,* and the wealthier you are the more likely it is that

*In general terms they involve the investment of resources relevant to rank.

you will have the money needed for any given innovation. Few innovations are perfectly divisible, and, in the long run, the wealthy farmer will innovate more simply because he can afford to do so. Even if he is less inclined to risk a proportion of his resources (say 10 percent) on innovations, he may end up trying more innovations simply because many more possibilities will come across the budget threshold determined by his wealth; this argument is represented by the F curve in Figure 2.

This facilitating effect of wealth is augmented by the association of wealth with information and education. Wealthier people tend to be better informed. And, since the uncertainty that stems from lack of information inhibits innovation, it makes sense to conclude that better informed people will innovate more in cases where the innovation will be to their advantage. Since this study concentrates on "successful" innovations we may expect the information effect to facilitate innovation.

The F curve also represents the traditional empirical findings described in Chapter 1 and the ideas usually used to explain them. In this formulation it is easy to see that the I and F curves highlight the basic conflict between the inhibiting-effect interpretation and the received wisdom on the relation of rank and innovation. Part of the conflict will be resolved in later sections of this chapter; but part will, of course, remain to be decided by the data presented in Chapter 6.

Notice that this section has been labeled The Facilitating Effect of *Wealth*, while above I referred to the inhibiting effect of *economic rank*. This contrast between economic rank and wealth is meant to call attention to the different underlying principles involved.* The inhibiting-effect argument emphasizes the relative position of people in a rank structure and their response under uncertainty. The facilitating-effect argument emphasizes the actual limits on resources invested even under conditions of certainty. These basic contrasts between rank and wealth, and between uncertainty and secure knowledge, remain central throughout this book.

*For many purposes wealth and rank are interchangeable. High wealth rank is equivalent to relatively great wealth, and vice versa. Chapter 4 reviews situations in which it is productive to maintain the distinction between wealth and wealth rank.

### *The Curvilinear Effect*

The overall theory predicts that the empirical relation of rank and innovation will be curvilinear (see Figure 1). Yet, both the inhibiting effect and the facilitating effect are linear. Here I want to present the various arguments for curvilinearity: 1) the essentially sociological notions that were presented in the original statements of the theory (Cancian 1967, 1972); 2) an argument based on personal characteristics that I will review and reject as an appropriate explanation of curvilinearity; and 3) the argument about characteristics of the normal distribution (presented by Gartrell, Wilkening, and Presser 1973). They will be reviewed in turn.

If we see a person's inclination to risk as a balancing of what he has to gain and what he has to lose, it is not difficult to imagine that people at the ends of the rank continuum might not operate according to the principles that predict the behavior of those in the middle of the continuum. Those at the end have everything or nothing to gain, everything or nothing to lose. When this is the case, one might argue, an economizing conceptualization of the situation does not make sense; those who define the ends of ranking continua may not participate in the competition for rank in the same way as those who are not so conspicuous.

Of course, the question of how they will behave still remains open. I argue that they will behave *unlike* the prediction made for them by the inhibiting effect ideas discussed above. The behavior most unlike the predictions of the initial proposition would be for the highest-ranking people to be high riskers and the lowest-ranking low riskers. These principles yield a relation of rank and innovation like the curvilinear one shown in Figure 2, curve C. Note that in order to illustrate this idea a minimum of four ranks must be distinguished. For convenience, I will refer to these ranks as low, low middle, high middle, and high.

The kind of thinking that goes into arguments for the distinctiveness of people at the ends of the rank continuum is illustrated by George Homans' chapter "Status, Conformity, and Innovation" (1961). Homans usually divides the social continuum into three parts: high, middle, and low. He argues that