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### Commentary

William M. Evan,

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## COMMENTARY

WILLIAM M. EVAN

*Sloan School of Management, Massachusetts Institute of Technology,  
Cambridge, Massachusetts*

The problem of implementation in the staff-line relationship, so cogently and provocatively analyzed by Churchman and Schainblatt, at first appears to be a close cousin of the problem of collaboration in interdisciplinary research. Collaboration between researchers of different disciplines is notoriously difficult. Among the obstacles are mutually unintelligible languages, different styles of research, and personality conflicts. Yet, major discoveries and innovations in science and technology have occurred in the border areas between disciplines, as, for example, in the fields of biochemistry, molecular biology, and astrophysics. Analogously, the collaboration of researchers with managers, whether of business organizations or government agencies, has already proven highly productive and promises to yield new and significant developments for industry and government as well as for science and technology. Nevertheless, the communication barriers between staff specialists and line executives, as Churchman and Schainblatt point out, are formidable.

Communication barriers arise, in part, because of value conflicts and personality conflicts. These types of conflicts, to be sure, obtain in both staff-line relationships and in inter-disciplinary relationships. But a distinctive feature of the staff-line relationship, which the interdisciplinary analogy may obscure, is the power differential between the parties to the relationship. A power differential, especially under a condition of value conflict, probably tends to breed suspicion, distrust, and fear. Moreover, a power differential probably exacerbates whatever value conflicts and personality conflicts arise between the researcher—the “man of contemplation”—and the manager—the “man of action.”<sup>1</sup> In sociological terms, the “status profiles” of the in-house researcher and the manager are inconsistent: the researcher is high on technical knowledge but low on rewards and power; the manager is low on technical knowledge but high on rewards and power. This feature of the staff-line relationship may be conducive to what Churchman and Schainblatt call the “separate function” type of relationship, which is probably the modal type in industry and elsewhere. Under this kind of staff-line relationship, stereotypes and dogmas flourish. Each party tends to develop negative images of the other and under-estimates Type 1 and Type 2 errors in proffering and accepting advice. Mutual misunderstandings in the relations between the researcher and the manager may lead to what Merton calls the “self-fulfilling prophecy:” A manager who views researchers as “long-hairs” may unwittingly induce them to formulate proposals that are, in fact,

<sup>1</sup> Cf. Warren G. Bennis, “Theory and Method in Applying Behavioral Science to Planned Organizational Change,” a paper presented at the Conference on OR and Social Science at Cambridge University, September, 1964.

impractical. In turn, the researcher who views managers as overcautious and resistant to new ideas may unintentionally provoke negative reactions to even the most practical of his suggestions.

The dilemmas of implementation under a "separate function" type of relationship often arise whenever the researcher submits a proposal to a manager for an innovation. The proposal may involve a *technical* innovation, i.e., the implementation of an idea for a new product, process, or service; or an *administrative* innovation, i.e., the implementation of an idea for a new policy pertaining to the recruitment of personnel, the allocation of resources, the structuring of tasks, of authority, or of rewards.<sup>2</sup> Technical proposals are probably less often rejected by the manager than are administrative proposals because they are probably regarded as more tangible and more proximately related to the primary goal of the organization. Not only is the potential pay-off of an administrative innovation, e.g., a "dual ladder" system of promotion, less certain than a technical innovation, but it is also likely to require more time to have any discernible effect. If the hypothesis is true that the manager more often rejects administrative than technical proposals, then we are confronted with a phenomenon which might be called "organizational lag."<sup>3</sup> If the rate of administrative innovations lags behind that of technical innovations, it will, in the course of time, probably retard the rate of technical innovations.

Organizational lag as well as its adverse consequences for organizational growth are probably reduced under either the "communication" type of relationship between the researcher and the manager or the "persuasion" type of relationship. The communication type of relationship presupposes the emergence of a new style of manager, one who is deeply grounded in science and technology. Ackoff, Dill and his colleagues, among others, have in effect pointed to the need for this new kind of executive to come to grips with the on-going revolution in information technology.<sup>4</sup> The graduate schools of business, particularly those oriented to developments in computer technology and in applications of mathematics to management problems, are contributing significantly to the emergence of the new style of manager.

The "persuasion" type of relationship between the researcher and the manager might be viewed as one in which a professional-client orientation, rather than a staff-line orientation, is dominant. This entails a commitment on the part of the researcher to render a *professional* service to the manager, using the best available knowledge to solve his *client's* problem. It requires that the researcher assume a fiduciary responsibility for the welfare of his client. In turn, it means that the manager admits that he is a *client* and acknowledges the expertise of the researcher, thus in effect delegating to him some measure of his

<sup>2</sup> Cf. William M. Evan, "Organizational Lag," to appear in *Human Organization*, 1965.

<sup>3</sup> *Ibid.*

<sup>4</sup> Russell L. Ackoff, "Automatic Management: A Forecast and Its Educational Implications," *Management Science*, 2 (October, 1955), pp. 55-60; William R. Dill, Thomas L. Hilton, and Walter R. Reitman, *The New Managers*, Englewood Cliffs, N. J.: Prentice-Hall, 1962.

power. As researchers become increasingly numerous in industry and government, owing to advances in science and technology, pressures will probably increase for a professional orientation on the part of the researcher in dealing with management.

The relationship between the researcher and the manager which Churchman and Schainblatt designate as "mutual understanding" is rare indeed. Movement toward this ideal relationship and away from the "separate function" relationship may require a sequence of interrelated events such as (a) progress toward the "communication" and the "persuasion" types of relationships; (b) a reduction of the power differential between the researcher and the manager; (c) an increase in value consensus; and (d) an increase in mutual respect. These conditions are probably necessary for approximating a "mutual understanding" relationship between the *natural science* researcher and the manager, but probably not between a *social science* researcher and a manager. The social science researcher will probably have to make further progress than he has to date in developing more powerful theories, on the one hand, and better quality data as well as more readily accessible data, on the other hand, if he is to be in a position to present to the manager useful findings and recommendations for policy.

Clearly, the problems of implementation are sufficiently important and complex to warrant systematic research. Laboratory experiments simulating various kinds of manager-researcher relationships, including the four types trenchantly analyzed by Churchman and Schainblatt, are possible. One such study, and possibly the only one of its kind, is that by Churchman and Ratoosh.<sup>5</sup> Such laboratory experiments, together with sample surveys of actual staff-line relationships in industry and government,<sup>6</sup> would provide the data and the hypotheses necessary for designing field experiments on problems of implementation. In short, greater knowledge of and self-consciousness about the dilemmas of implementation would, in all likelihood, reduce the frequency and cost of disruptive conflicts between researchers and managers.

<sup>5</sup> C. West Churchman and Philburn Ratoosh, "Innovation in Group Behavior," University of California: Management Science Center, Working Paper #10, January, 1960.

<sup>6</sup> Cf. Guy Black and William M. Evan, "Staff Proposals for Innovations in Organizations," forthcoming.

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