

The New Challenge to Scientific Management

Can the Principles of Planning and Control Be Applied
Over a Wider Area than the Individual Enterprise?¹

FROM time to time there is discoverable in American thinking some particular element which, though not yet general, has unmistakable significance. Whenever one of these relates to industry and involves principles of organization and management, the Taylor Society considers it a privilege and an obligation to offer a forum for its consideration.² As a device for stimulation and direction of discussion, it is essential that the particular element of thought at issue be summed up in the form of brief and fairly definite propositions.

The propositions presented for discussion this evening center about the concept that the operations of industrial society are not yielding the greatest possible good to the greatest number of industrial citizens. This is because these operations are not now, although formerly they may have been, organized with that end in view; and more particularly because of an inconsistency between the basic principle of business enterprise—*individual self-interest and intuition*—and the basic principle of the production technology which that enterprise, without full appreciation of its influence, has come to use—*co-operative integration*. The result of this inconsistency is periodic dislocations of industrial processes, stoppage of livelihood activities and of income for a large proportion of the population, and consequent ultimate impairment of progress toward a balanced and harmonious social life.

In its general outlines the concept is not new. For centuries there have been those, who, dissatisfied with the economic conditions of their lives, have constructed utopias and formulated doctrines of a better organized society. On the whole, however, these utopias and doctrines have not been in accord with the possibilities

presented by the technologies of their respective times, and have involved sudden and revolutionary change.

The conspicuous new element in the concept today is recognition of present characteristics of industrial technology, which has undergone great and rapid change during the past half century. What is involved in the present approach to the problem is not revolutionary reconstruction but evolutionary consistency. It is argued that new principles of organization and control of individual enterprises, and of integrated groups of individual enterprises, have been developed and validated, and that if these were applied to the organization and control of industrial society conceived as an organic whole, many and perhaps most of the forces which now cause periodic dislocations and distress in industrial life would be eliminated.

With this brief explanation the following propositions are submitted for discussion:

Propositions

Proposition 1. Scientific management has given the individual industrial enterprise, whether single unit or multiple unit, a body of principles and a pertinent technique of management involving:

a. Research in its various forms—the basic approach to a solution of the multiple problems of management;

b. Standardization—the specification of purposes, policies, plans, projects, facilities and methods, as the relatively constant factors in terms of which plans may be made and their execution directed, measured and appraised;

c. Planning and control—the organization and direction of the application of facilities along predetermined lines for accomplishment of purposes, policies, plans and projects;

d. Co-operation—recognition and acceptance of the laws governing managerial situations discovered by research, formulated in standards and utilized in planning and control.

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The application of these principles has demonstrated the practicability of internal stabilization of the individual enterprise; i.e., control of variation in the relations and composite influence of the internal factors of the enterprise. The elimination of internal maladjustments, except when caused by the impact of forces outside the control of the management, may be regarded as practicable.

However, it should be noted, the internal stability of an enterprise established by scientific management is frequently nullified by the impact of forces of the industrial environment outside the control of the management.

Proposition 2. During the past century, and with rapid acceleration during the past quarter-century, production technology has developed along the lines of increasing mechanization, and of specialization and division of labor not only as between individuals in a particular enterprise but also as between enterprises and functional groups of enterprises. This has created an increasing interdependence among individuals, enterprises and groups. These organic inter-relationships are so intricate and delicate in their adjustments as to expose the industrial organism at any one of numerous points to maladjustment which is reflected all along the line of inter-relationships. These maladjustments occur periodically, and take the form of a serious stoppage of productive processes and of the distribution of social income, with serious consequences to numerous individuals who are dependent upon that income for maintenance of their standard of living, and in some instances for their subsistence; and with serious consequences also to enterprises which are dependent for maintenance of stability upon continuous transformation of material goods into free capital for reinvestment.

Proposition 3. There are two principal reasons for these maladjustments of organic relationships and their serious consequences. On the one hand, the adjustment of relationships is left to the "working of natural economic forces" in the negotiations of business—really the chance composite influence of a vast number of enterprises motivated by individual gain in competitive activities, limited in their perception of relationships and the organic consequences of their activities, and on the whole dependent upon intuition

for their decisions as to purpose and method. On the other hand, the organization and direction of established social mechanisms upon which even individual enterprise has long been dependent, such as currency and credit, is along similar lines of individual initiative, control and intuition.

In other words, the basic individualistic processes of business enterprise no longer operate in harmony with the vast superstructure of inter-related technological processes of the actual production of social utilities. This absence of harmony is not merely negative, but is a positive force generating periodic dislocations more and more destructive in their influence in the whole social structure.

Proposition 4. This lack of harmony between the processes of business enterprise and the technological processes of production of utilities may be removed or at least measurably reduced by deliberate efforts of industrial society to bring them into harmony; efforts which presumably must proceed along the following lines:

a. Common recognition of the problem and analysis of its causes and consequences;

b. Voluntary establishment of some form of self-government in industry dependent for its effectiveness on the acceptance by individual enterprises, for the common good, of the necessity for greater limitation to individual freedom in business activities than is at present assumed to be desirable;

c. Application of the principles of scientific management developed and validated in the individual enterprise (as presented in the first of this series of propositions) to industry conceived as one vast enterprise in which all members of industrial society are workers and share-holders in common.

Inasmuch as the application of these principles has in individual enterprises increased the opportunity for adjustment, initiative, self-expression, accomplishment and stabilization of purpose and effort on the part of those co-operating in these enterprises, it is a reasonable assumption that the application of these same principles on a larger scale will promote more generally throughout industrial society opportunity for adjustment, initiative, self-expression, accomplishment and stabilization of purpose and effort on the part both of individuals and enterprises.

¹Propositions presented for discussion at a meeting of the Taylor Society, New York, December 5, 1930. Formulated by H. S. Person, Managing Director of the Taylor Society.

²The most recent symposium of this nature was held at the December, 1928, meeting of the Society. The discussion was printed under the title, "The Work-Week or Work-Life?" in the *Bulletin of the Taylor Society*, Vol. XIII, No. 6, December, 1928, p. 230.