

Management as an Executive Function¹

Emphasizing Modern Biology and Psychology as Essential
to the Development of a Science of Management

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THE meaning of the term Scientific Management is still in the making. It was coined by Taylor in the early stages of the public announcement of his application of the scientific procedure to management. It met a popular need to express the idea back of the beginning of a new era in management, and was broadly used by people with little or no knowledge of its meaning in the mind of the originator.

In the light of Taylor's own words, it seems to me to represent a personal expression of what he regarded as necessary to correct the deficiencies of the then existing social and economic status of industry. It is comparable in nature, though not in kind, to the present use of the terms liberalism and radicalism with relation to society at large, and is subject to as many different interpretations.

Taylor says, "Scientific Management fundamentally consists of a certain philosophy which can be applied in many ways", and a description of what any man or men may believe to be the best mechanisms for applying these general principles should in no way be confused with the principles themselves." He also says, "I want to tell you as briefly as I can what Scientific Management is. It certainly is not what most people think it to be. It is not a lot of efficiency expedients. It is not the printing and ruling of a lot of pieces of blank paper, and spreading them by the ton about the country. It is not any particular system of paying men. It is none of the ordinary devices which, unfortunately are going by the name of Scientific Management. It may in its essence be said in the present state of industry to involve a complete mental revolution, both on the part of the management and the men."

I have always felt that Taylor's selection of the term Scientific Management was unfortunate, because of its inevitable confusion, on the one hand with the science

of management and on the other with the function of management, although neither of these latter terms expresses what he most often stressed in what he said and wrote. The absence of accepted terminology which sharply distinguishes these concepts is like a cross roads without sign posts, and has done much to befog an understanding of Taylor's work. Everything he did is clearly definable as either science of management or the function of management and these should be distinguished from his philosophy or state of mind, however much they affected his art and science. His selection of the term Scientific Management is not surprising, however, in that the development of his principles (a science of management) and of himself as an executive managing man (the art of management) had to go hand in hand, and against tremendous odds and misunderstanding, of which none but those who have attempted to pattern their work after his can have any appreciation. It was not unnatural that he coined a term which combined these distinct things as though they had been brought together. With the idealism of a revolutionist he hoped for the merging of the art and science of management, and was impatient of their mutual evolutionary development.

Mr. Oliver Sheldon, in an article in the December, 1923 *Bulletin of the Taylor Society*, refers to "the science of management of which we are beginning to hear so much," but denies the present validity of the term. He speaks of the existence possibly of a "science of bricklaying or a science of chocolate covering, but not a science of management," and goes on to say, "It is the science, the knowledge, the truth, the standards which the bricklayer has to learn. To achieve a science of management therefore, we have to apply the scientific method to the tasks of management, as distinct from the tasks of those whom the management controls. It is fundamental, I suggest, to draw a distinction between operative science (which management, of course, uses) and managerial science, where management itself is the operative"

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BULLETIN OF THE TAYLOR SOCIETY

67

I believe that it is possible to define certain fundamental principles and rules which will ultimately be entitled to be called a science of management, and even to compile a handbook of standard mechanisms and means consistent with these principles. Taylor in his four principles and in the mechanisms and devices which he originated, went far in this direction, but I do not believe that we know as yet, (and I question whether we ever will) sufficient about man's emotional and intuitive faculties to define laws and principles adequate to constitute a "managerial science, where management itself is the operative."

Mr. Kendall last evening referred to his having spoken, in his earlier paper at the Tuck School Conference, of systematic management and scientific management as representing two different types of management. As I recall this talk, he gave an illuminating description of the distinguishing characteristics of each, but made no reference to the science of management as distinguished from Scientific Management.

The science of management, as I see it, has to do with the determination of the facts concerning the design, selection and operation of means to a given end—in other words, the facts bearing upon a problem of management; whereas management—whether systematic or scientific, whether of a manufacturing or merchandising business, whether of an institution or a government—if it is *management*, and not *the science of management*, is primarily concerned with expediency and leadership, however much it may be tempered by science or system. While every manager should seek to increase the element of fact in the basis of his judgments, the word management does not necessarily imply even a knowledge of the facts concerning the thing managed, and is without regard to effectiveness. It is often spoken of as an art and used synonymously with the executive function of administration. It is preferably used in connection with the direction and manipulation of units of activity, where there are a limited number of opposing objectives, as in a small or simple business or a department of a larger business.

The term administration as a policy determining function is usually exercised by a committee or board of directors, in which case it means something very different from management. Administration as an executive function, however, is very like management and connotes something very different from a science. It is preferably used in connection with the supervision and manipulation of opposing objectives existing in the management of several smaller businesses,

or the various departments of a larger business. There is no legitimate difference between it and management except in degree and scope. Either or both may be characterized as systematic, scientific, humanitarian, ruthless or any other of a score of types.

Production is usually considered to constitute one branch of management and selling another, and the adjusting of the opposing elements in these and other branches of a business as still a third. The word management could properly be used to describe the function performed by a person charged with responsibility for production or sales or any other department of a business, or for all of the departments of a business where the business is small enough for them to be handled by one person. But when a business is so large that production, sales, purchasing, finance and other functions are each headed by separate executives, the function of the person charged with responsibility for supervising and manipulating these personalities and coordinating their responsibilities can best be described as administration.

The science of management, or management as a branch of engineering, which I believe to be a more desirable term, should be used by both managers and administrators to determine the facts upon which their policies and decisions are based, but its function as such should stop where the determination of facts ends and expediency begins. However far management as a science may encroach upon management or administration as an executive function through the development of facts bearing progressively upon problems as they arise, there will always be a plane on which the final determination must include things other than facts. If management as a science or branch of engineering hopes for recognition as such, this must always be the place where it stops and management or administration as an executive function begins.

In its present stage of development, management as a science or branch of engineering has hardly gone further than to deal with the mechanics of management, and it is not to be wondered that executives with broad and varied experience in management and administration, in their larger aspects of policies and personalities, resent the sometimes all-embracing counsels of those whose experience is largely confined to the mechanisms of management.

I think it is fair to say that Taylor was the first to collect and formulate the existing knowledge with reference to management into a comprehensive and logical body of principles and practice in any way

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²The italics are Mr. Williams'.