

in the past.¹⁸ The old conception of authority in industry, and the popular conception still, carries the idea of military power or domination. It is a rigid concept, not a releasing one. The definition (Webster's International Dictionary) is "legal or rightful power," "power exercised by a person in virtue of his office or trust; dominion; jurisdiction," "power derived from opinion, respect or esteem."

A glance at the list of synonyms for *authority* will show us that there is little for our purpose here. The word *authority* carries with it very definitely the idea of "power over." Any synonym with that connotation is just as objectionable as the original (ascendency, sway, power, domination) and any without it is inadequate.

We then turn to an examination of authority as it exists in concrete situations and ask ourselves if there is any constant accompaniment or any other aspect of authority which could be emphasized. *Responsibility* immediately suggests itself. "This word is not offered as an original discovery. It has all the more security because many executives have already discovered it."¹⁹ "There is no difference except in the attitude one has, or the reaction of a person or group of persons in an organization to certain relationships in terms of authority or in terms of responsibility. These words do mean a different attitude rather than a different thing . . ."²⁰

"It is axiomatic that the exercise of responsibility carries with it, by implication at least, reasonable authority with respect to determination of practical questions involved in carrying out such responsibility."²¹

There can be no authority without responsibility, for responsibility is just the other face of the same relationship. *Authority* emphasizes power over another person or situation. *Responsibility* emphasizes the condition of being answerable to the person or situation for the fulfillment of a function. Among those who conceive of an industrial unit as an organic whole working out its development

¹⁸Bulletin of the Taylor Society, Vol. XI, No. 5, December 1926. Discussion of Mary P. Follett's "Illusion of Final Authority" by Richard A. Feiss.

¹⁹Bulletin of the Taylor Society, Vol. XI, No. 5, December 1926. "The Illusion of Final Authority" by Mary P. Follett.

²⁰Ibid.

²¹Bulletin of the Taylor Society, Vol. XII, No. 2, April 1927. "Problems of Bank Organization" by H. A. Hopf.

according to known laws, there has often been expressed a desire for terms which imply a functional direction rather than autocratic control. *Authority* sets the attitude of the person to whom it is directed into a resistant state and that of the person who uses it toward thought of his own power to command. These attitudes are not those which make for co-operation and realization of the importance of the efforts of our co-workers. *Responsibility* tends to orient one toward those duties for which one is answerable. It fixes accountability without implying a force from without. This is what Miss Follett calls "definition of task." It is a functional concept rather than one depending upon position. By focusing on our responsibility rather than our authority we may find ourselves in a more energy-releasing, co-operative position in relation to the rest of the working unit.

With the words *science* and *scientific* we approach a slightly different problem, yet one which, in a way, embraces that faced in consideration of those already discussed. *Science* and *scientific*, especially the latter, occur most frequently in industrial situations in connection with the system known as scientific management. Due partially to unfortunate occurrences in the earlier life of scientific management a certain stigma has been attached to the system in the eyes of many workers. Besides that, the system has had to face that fear of change which all new ideas must face. Overcoming such fear is a matter of slow education involving repeated and simple explanations and illustrations. We are not afraid of the things we know. Acquaintance supplants fear by giving a chance for judgment on merit. Misunderstanding, then, based on misuse of the devices of scientific management, and upon the inertia of habit, has tended to disqualify the term in the eyes of both workers and executives. "It is possible to use the mechanism of scientific management for bad, but not scientific management itself. It ceases to be scientific management the moment it is used for bad."²²

Furthermore, *science* and *scientific* used in the shop are likely to sound "high-brow." Another quotation from Copley's "Frederick W. Taylor" shows that Taylor felt the criticism a probable one when the name "scientific management" was first adopted. "Fol-

²²"Frederick W. Taylor" by Frank Barkley Copley.

lowing the popularity given to this phrase (scientific management) at the rate hearings, Taylor himself made bold to use it formally; but it can be said that he continued to cherish a certain distaste for it, and this because he feared not merely that it had a pretentious sound, but that its connotations would seem academic to most people." This fear has proved a sound one.

Science is defined (Webster's New International) as "knowledge classified and available for use; classified and analyzed knowledge." The characteristics of science are that it is definite, precise, valid, analyzed, organized, exact, systematic, universal in application. *Science* describes facts and formulates relations into laws.

The following definition comes from management literature. "Science is defined as 'knowledge gained by systematic observation, experiment, and reasoning; knowledge co-ordinated, arranged, and systematized.'"²³

The nearest synonym to *science* is knowledge (science is derived from the Latin *scio*—to know) but it does not convey the full meaning and would have to be qualified. The list of characteristics are, when taken together, more descriptive but equally hopeless as substitutes. Probably there is no single equivalent for *science* or for *scientific*, and our objections to them are not such as to bar them from use if they are fully understood. Whatever disagreeable ideas they convey are due to misunderstanding or lack of understanding rather than any concept inherent in themselves. A full understanding is likely to do a great deal to allay prejudice as we cease to think of the ideas with which we are at ease as being "high-hat." Furthermore the words fit the ideas which we want to convey and are widely accepted outside the shop as meaning just what we want to say inside the shop. The simplest and most effective thing to do then is to make the word a familiar part of the vocabulary of the shop. Such a result could be brought about by attaching to them a number of descriptive phrases, a suitable one to be selected for each particular use. A complete list of such phrases cannot be compiled away from the working environment but some suggestions can be made that may be helpful. The phrases should be numerous

²³Bulletin of the Taylor Society, Vol. VIII, No. 3, June 1923. "The Planning Department as an Instrument of Executive Control" by Keppele Hall.

enough to bring out the various characteristics of science. There is no one phrase that will fit at all times. If we look at Philadelphia from the train window, our picture is different from that seen from the Delaware River, or from an airplane above City Hall. All are really the same city but no one aspect is complete without the others. We may prefer one view at one time and another at a different time but we cannot be allowed to think that any one shows us all that there is.

Phrases might be attached to our problem words such as: "science, which means classified knowledge; scientific, that is, systematic; science, or exact knowledge; scientific or classified knowledge; precise, analyzed, definite, or organized knowledge." The following quotation from an article by Robert B. Wolf is an excellent example of the clarifying and simplifying of a difficult term. "In order to bring this about, I explained that 'we must follow the scientific method instead of the rule-of-thumb method of doing things.' I also explained that there was nothing mysterious or 'high-brow' about science; that it simply meant finding out why things went wrong, so as to prevent them from going wrong again, and why they went right once in a while, so that we could make them go right more often." The real point is to make these words seem so familiar and so clear in meaning that they can ultimately stand alone.

Psychology and *psychiatry* present peculiar difficulties in that the leading authorities in these fields find it impossible to agree on definitions of them. For a lay person to attempt to discuss the fine points of definition in this case would be rather futile.

As for *psychology*, the battle royal still proceeds between the introspectionists and the behaviorists, with the dictionaries and encyclopedias still on the side of the former. Since they ignore the modern behavioristic psychology we shall in turn have to ignore their definitions in favor of those offered by new schools which have contributed most to the study of human conduct. Webster's International Dictionary gives James' definition of psychology as the "science of mental life or the study of the mind." Besides John B. Watson, the most extreme exponent of psychology as the study of human behavior, the following psychologists and men versed in psychology give definitions of a decidedly behavioristic trend. E. C. Lindeman in "Social