



MAJOR FUNCTIONS OF MANAGEMENT

Colonel J. H. Buckner, USMC

NOTICE

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Reviewed by: Colonel Tom W. Sills, USA

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INDUSTRIAL COLLEGE OF THE ARMED FORCES

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25 September 1959

COLONEL BUCKNER: General Houseman, Gentlemen: We are gathered here today to begin the last phase of the Foundations Unit. We call this Executive Development. Now, it will last only a total of five days, but--I freely admit that I am prejudiced--I think it is one of the more interesting and worthwhile parts of the entire course. I must hasten to add that I say this not because you will learn anything new and very startling. You may have been struggling to learn or relearn economics, and some of you may have had to sit up late to keep up in government, but in your careers up to now all of you have, I am sure, become more or less skilled in the discipline of this unit.

What we hope you will do in Executive Development is reflect on the examples of leadership, good and bad, which you have observed throughout your staff and command careers. We hope that you will rehash these experiences with each other, and we hope you will thus be able to relate what you have observed to what the experts are saying and writing in the management field. And, finally, we hope that as a result you will be better able to fill the high-level staff and command jobs for which you are destined.

What I would like to do in the remainder of my time is to say a little bit about the major functions of management; but, instead of

major functions I'd like to call them universal functions. This is really a more descriptive term and I think this poetic license may be permissible since I wrote the title for this opus in the first place.

I'll say something about the universal functions, then. I'll also say something about what I call general skills of management. And I want to do this so that you will know what we are talking about in this course and also what we are not talking about. But most of all I want to try to tell you about a classic experiment which, more than any one event, caused management to become intensely interested in the science of human relations and its bearing on the management problem. Then, finally, I'll say a few words about the conduct of the course.

Well, now for these universal functions. These functions are universal because every manager or commander is involved with them whether he runs a division, a wing, a sea frontier, or a shoe store. First, a manager plans. In one way or another he decides what his unit will do over a period of time. Another way of saying it is that he sets the objectives toward which he and all his subordinates will work. Now, the big difference between industrial and military planning is that military plans for war are all contingent, at least during peacetime. They are aimed at eventual objectives which will be striven for only in the event of war. The industrial planner, on the other hand, is preparing for actual operations which he knows will take place within the next

year or perhaps a year or two later. Military planning for general preparedness for war is more nearly analogous to industrial planning, because its objective is to prepare men and materials in the right combination, albeit for an eventuality.

The second function is organizing. A manager must decide what the most economical combination of resources is that is required to accomplish his planned objective. And here I think the industrial manager and the military commander come closer to doing the same thing. Both break down their objectives or end products into intermediate steps and assign them to units equipped to do the job. Both do this to facilitate control of individuals and groups as they work toward the planned objective.

That brings us to the third function--control. This is the action a manager takes to insure that all his units are moving toward the objective in coordination. In other words, control is used to insure that where a unit's success in achievement of its objective depends on action taken by another unit that action is taken.

Many writers go on to specify that direction and coordination are also additional main functions. They no doubt have good reason to do this, but just as many include directing and coordinating as aspects of control.

I think it will be sufficient for our purposes, then, to list the major functions as just planning, organizing, and controlling.

Now to name these things which we will call general skills of management: These skills may be required to accomplish any or all of the functions. The first, and, if you will permit a personal opinion, the most important skill of a manager or a commander is the ability to communicate. I say it is the most important skill because without communication the plan cannot be made known, the organization cannot be set up, and the controlling action cannot be taken.

It is interesting to note that Professor Mayo of the Harvard School of Business Administration agrees with me. In his book, "The Social Problems of an Industrial Civilization," written in 1945, he says:

"I believe that social studies should begin with careful observation of what may be described as communication; that is, the capacity for an individual to communicate his feelings and ideas to another, the capacity of groups to communicate effectively and intimately with each other. This problem is beyond doubt the outstanding defect that civilization is facing today."

In this connection we have a small sample from history. No doubt many of you, at one time or another in your careers, have received directives which left you in some doubt as to just what you were supposed to do. Put yourselves in the shoes of General Shafter, the U. S.

Army Commander of the Expeditionary Force organizing and planning for the invasion of Cuba in Tampa. He received these orders:

"Debark at various points east or west of Santiago, under protection of the fleet, as you think convenient. Advance to the heights which dominate the port, or to the interior--whatever permits you best to capture or destroy the Spanish garrison. Or, with the help of the Navy, take or destroy the Spanish squadron. Cooperate closely with the Navy. When do you start?"

And here is what the late Irving J. Lee of Northwestern University had to say in part on the subject of communications: (Film)

The second general skill of management is the making of decisions. Don't think that you are going to have to become acquainted again with the commander's estimate of the situation. The various staff manuals are explicit enough on the commander's estimate, and besides it is usually used to justify a decision which has already been arrived at, anyway.

Of course, what decision is made is important. It should be the right decision. But perhaps of greater importance is that the decision be accepted by those who are going to have to execute it; and the manner in which the decision is arrived at seems to have a great bearing on whether or not the decision is accepted.

I'll have to admit that, before I came to the Industrial College, I thought that Stonewall Jackson had the right idea, from what I've read he never held a staff meeting or consulted his subordinates. They were told by Stonewall when the march would start and, if they were lucky, the direction, and they learned their destination when they got there.

One of the articles you will read has some good information on the general subject of decision-making and gaining acceptance, and we will have a No. 1 lecture on the subject. I would just like to throw out now, for what it is worth, the idea that perhaps the military and all of Government could profit from the lessons of industry in this respect. Perhaps we should retreat occasionally from our age-old propensity to make arbitrary decisions in all matters which will be carried out or else.

I know there are many other things that are called skills of management, such as conference leadership techniques, cost estimating, operations analysis and others. I think that you will agree that these are specialties. What we want in this particular part of the course is to consider skills concerned with the human factors of the management or command equation.

Now please note that I have said nothing about the attributes or characteristics of management or command, such as honesty, integrity, loyalty, and so forth. As you well know, some people make a living

out of listing what attributes are important, supposedly, in the interest of enabling organizations to name the young man most likely to succeed. And you may wonder why we don't go in for this exercise. In justification, I'd like to quote a short piece from Mr. Crawford Greenwalt's new book, "The Uncommon Man." Mr. Greenwalt is president of Dupont. In the chapter on Executive Function he tells about someone from "Fortune Magazine" quizzing him as to what the important characteristics are, and the gist of his comments is that he can't give them a good list. He goes on to say this:

"Judgment is important; vision is undoubtedly essential; and we could exhaust our list of virtues without reaching the core of the problem; for I have known men with leadership, with judgment, and with vision who were not in any sense of the word good executives. The best that I can offer is to say that the basic requirement of executive capacity is the ability to create a harmonious whole out of what the academic world calls dissimilar disciplines. This is a fancy way of saying that an executive is good when he can make a smoothly functioning team out of people with the many different skills required in the operation of a modern business. His most important function is to reconcile, to coordinate, to compromise, and to appraise the various viewpoints and talents under his direction to the end that each individual contributes his full measure to the business at hand."

Now, the German Army apparently had another way of looking at this matter. Major Boatner, writing in the August 1955 "Military Review," had this to say:

"The Germans have rather facetiously classified officers with respect to how each possesses the qualities of intelligence and energy. The brilliant and energetic are alleged to make the best staff officers; the brilliant and lazy make the best commanders, because they look for the easy way to do things; the stupid and lazy can be useful on the vast number of routine duties required of officers; the stupid and energetic, on the other hand, must be promptly identified and ruthlessly eliminated. They are sure poison."

The College doesn't officially accept this view. Now, where does the social science of human relations fit in all this? The answer is, it fits in everywhere--in planning, organizing, controlling, communicating, and making decisions. But, before saying anything further on the subject of human relations, and to allay your fears that I may try to pass myself as an expert in human relations, I want to report to you the tenor of a conversation that took place not so long ago. I was engaged in planning the Executive Development course you are about to encounter, and I was wondering what our new student body would know already about human relations. So I asked Tom Sills, my Branch Chief,

if I would list a lecture as just human relations, if he thought that you all would know what to expect. Tom said, in effect, that the students generally have a wide background of experience and education, and that I should expect you to know something about human relations. But I said, "When I was a student I didn't know anything about human relations." "Yes," he said, "but, Buck, you are a Marine."

So maybe a definition of human relations is necessary only for the Marines among you. At any rate, F. K. Berrien, in the preface of his book, "Human Relations, Comments and Cases," says:

"Human relations has come to mean many things. For some the term refers primarily to a method of teaching--the case, class discussion, a permissive role for the instructor. For others it is a general approach for the beginning student of behavioral sciences. For still others it is a particular formulation of one of the problems of modern society."

If you look under Human Relations in "Look Magazine's" Index, you will find such things as "Norman Vincent Peale Answers Your Questions," "What Ministers are Learning about Sex," and "Everybody Prays for Julie." But it is generally recognized that the social science of human relations had its beginning in the work of Mayo, Rothelsburger, and Henderson at Harvard in the 1920's and the 1930's. These professors conceived human relations to be a field of research, teaching, and

practice, just as is medicine. They felt that their interests and those of industrial management were closely allied because both were interested in the process of getting cooperative action out of organized human activity.

One author says:

"Out of careful study of what goes on in actual, concrete situations, where organized people are trying to achieve a common goal, the human relations specialists felt that they could identify some of the crucial determinants of effective collaboration, some of the reasons why attempts of people to work together end in chaos and confusion, unnecessary friction, and some of the roots of many of the disturbing and disrupting aspects of our modern industrial society." And he goes on to say that this idea spread from Harvard throughout the world, but most of the researchers, teachers, and businessmen engaged in human relations work owe their heritage to the Mayo group.

Well, now, let's consider the event which got management interested in human relations in a big way. It was an eminently successful experiment that failed. Until about the middle 1920's management believed that what motivated workers was, first, wages, and then, physical conditions of work. I might add that these were thought to be the only motivating factors, to all intents and purposes. Based on this premise, the Western Electric Company of Chicago became interested

in finding out what the best physical conditions were. So they got a team from Harvard, headed by the same George Elton Mayo, whom I have already mentioned, to do some scientific investigating. To keep the record straight, the National Research Council also footed part of the bill for these investigations; and we should note that the Western Electric Company was a well managed concern, judged by the standards of the day. It had no labor problems and it had a comprehensive wage incentive plan based on a system of group piecework. In theory, under this system an individual could increase his wages by increasing his output. At the same time, as a member of a group, his wage would be increased as the output of the group increased.

The first thing that Mayo and his cohorts tried to do was to establish a relationship between light intensity and worker output. They got very erratic results, which they suspected were caused by the workers trying to overcooperate, so to speak. Whenever an increase in light intensity was made the output would shoot up because the workers thought that was what was supposed to happen. The investigators proved this. They did it by changing the light bulbs in the experimental department but the replacement bulbs were of exactly the same power as those that they took out. The workers all commented on how much better the light was and proceeded to increase output.

The investigators, though, and the company didn't become discouraged. They still thought that they could eliminate the psychological factors and get on with their study of the effect of physical conditions. But they changed their aim to determine the effect of rest pauses and the length of work day and work week. Up to now there was really no information on the effect of this idea of what we now know, I suppose, as the coffee break. This may have been the birth of that great American institution. The scheme of eliminating the psychological effects was really a simple one. It was to select a small group of workers, put them in a separate room, and place them under intensive observation. It was also decided to tell these guinea pigs exactly what the aims and purposes of this experiment were. You could say it was decided to increase their security clearance from Confidential to Top Secret, I guess. This practice was continued throughout the experiment. Whenever a change in work conditions was planned, the test-room workers were consulted and their views were asked. In some cases the test workers were even allowed to veto plans which the investigators had made.

The work being done was the assembly of telephone relays, and so this experiment became known as the Relay Assembly Test Room. Without going into a lot of detail, it is important to know that these investigators were really scientific. They measured and recorded everything that they thought could possibly have a bearing on results, and observers

were stationed in the room to do this. But there was no supervisor, in the ordinary sense of the word. The observers recorded output, temperature and humidity, the health and attitude of the workers, and even how much rest they got each night. Then a log of conversations between the workers was kept and of other events, such as who came in and who went out.

This experiment lasted for five years, but the first part was the most significant and the one I want to report on. It consisted of 12 test periods varying in length from, maybe, 2 to a maximum of 12 weeks each. Remember that increase in the rate of output was not an aim of the investigators. What they wanted to find out was what caused changes in output. As a matter of fact, the workers were repeatedly cautioned to not make a race out of the test but to work just as they felt like working.

First, the output of each worker was measured in his regular working position in his regular department, to get a base point. Then a change involving the method of payment was made. Instead of being paid under a group piecework plan involving 100 workers, the test workers, those in the test room, were made a group by themselves for payment. This change was not made for an added incentive but rather to insure that the test-room workers would not suffer any loss of pay for having been placed in this room. But each worker as a result was paid more in accordance with his individual output.

Then rest pauses of varying length were introduced, so that when Test Period 6, in this series of 12, came around, six 5-minute rest pauses had been instituted. In Period 7 a light lunch provided by the company was given to the workers in mid-morning and mid-afternoon.

Next, the work day was shortened by two half-hour increments, and at Period 11 a 5-day work week was started.

Well, up to now the investigators were happily recording a steady increase in output. But, to check everything and to be sure of their results, they decided that they should go back to the conditions of work which were in effect at the start of the experiment. With the agreement of the test-room workers, the original working conditions were reestablished. In Period 12 there were no rest pauses, no light lunches, and the workers worked a full six days a week. This period lasted 12 weeks. The investigators were confounded by the result. Both daily and weekly output rose to higher points than they had ever been before. It is true that the hourly rate did decline a little bit, when compared with the work periods when rest pauses were in effect, but it came nowhere near as low as it was at the start of the experiment when the same conditions were being used. And there was absolutely no correlation between rate of output and physical conditions of work.

That's why I call it the experiment that failed. The investigators began to look around to find something which would explain these results.

The test group of girls gave them the answer. The girls said that they liked to work in the test room. As far as I know, the analyzers of Hawthorne attach no significance to the fact that these workers were girls. They said that they liked to work in the test room. They also said that the lack of supervision allowed them to work freely and without anxiety. For instance, they could talk as much as they wanted to. This was forbidden in the regular departments. But really, in a sense, they were far more closely supervised in this test room than they ever had been. They were watched by an observer interested in management and by all kinds of outside experts.

The point is that the character and the purpose of the supervision were different, and the girls knew it. They felt that they were taking part in something important. Also, the group had become a social entity. If one worker had a good reason for feeling tired, the others would work harder to make up the difference in output. Finally, the group developed, on its own, leadership and a common purpose. The leader saw a chance for distinction and advancement, and the common purpose was increased output.

They knew that they were not supposed to make a race out of this test, but they also knew that the record of output was the most important record being kept, and they soon committed themselves to ever-increased production, production, I might add, that was away yonder

higher than the average of the rest of the plant and was one which they maintained at a high level throughout the five years of the experiment.

In short, although there was no correlation between conditions of work and output, output could be related to the development of an organized social group in a peculiar and effective relation with its supervision.

To go back for a minute to what Mr. Greenwalt says--an executive's most important function is to reconcile, to coordinate, to compromise and to appraise the various viewpoints and talents under his direction, to the end that each individual contributes his full measure to the business at hand. Isn't this exactly what the investigators unwittingly accomplished in the test room? And isn't this why this experiment was successful?

Now, it may be too much to say that all the whooping and hollering about human relations since Hawthorne has been caused by the desire of management to duplicate conditions in the test room throughout industry; but I'll bet you that management would give its collective right leg to do just that.

Our speakers will tell you what has transpired in the field of human relations, teaching, and practice since the days of Hawthorne. My purpose has been to give you some idea as to why management knows that the human element in any organization is so very important. It was Hawthorne, with the discovery of the individual, which sparked

the whole thing, and I assure you, gentlemen, that management got the Hawthorne message and it has had profound effect on our entire industrial system, which you are here to study.

Obviously, this message is also no less significant for the Armed Forces and all of Government. That's why we teach this course at the Industrial College.

Now for the few points about the conduct of the course: Details will be covered for you by your faculty moderators immediately after we adjourn here. I just want to make a few general comments.

First, the reading requirements: The reprints of the current magazine articles which you have all been issued are concerned with the same subject as the speaker of the day. We hope that these articles will give you a little bit better understanding of the speaker's subject.

Then, you should become acquainted with one of the seven books in the student-room sets. Three of these are service publications, and, if you are already acquainted with one of them, I recommend that you read one of the remaining six.

The student paper, "Military Command and Business Management," by Colonel Frank Osmani, has been issued to each of you. It analyzes similarities and differences between command and management, and it is to be read sometime during this unit.

Finally, the case studies must be read for each day in order that you may participate in the case discussions. And now a word about this case study method as we use it here at the Industrial College. But before I go into that I'd like to reassure you one or two points. No doubt many of you have never taken part in case discussions before, but don't let that worry you. I hadn't either, when I was a student, but I do admit, though, that I was a little suspicious of that faculty moderator. He had a little black book and I thought that he was keeping track of who among us had the makings of the Nation's future leaders. Then when I heard that one of us was going to have to summarize the case discussion before the whole class, I felt really set upon, because I hadn't even started public speaking yet. But don't worry. We don't try to judge you as leaders. And the summary report to the class is supposed to be just that and not a finished speech.

I wonder what he was putting in that little black book?

Well, I think we can say that the purpose of the case studies is to teach human relations in the executive setting. So the case you discuss on a particular day has no specific connection with the lecture or the essential reading for a particular day. But I am sure that you will find that nearly all the cases can be related in one way or another to all the subjects on which the lecturers speak. It is obvious that the case studies

depend for their success on participation by everybody in the 12-men groups. That's why I want to emphasize that the case must be read and thought about ahead of time.

The final teaching tool is two half-hour movies. They are concerned with executive development generally, and partly with communications decision-making. Mostly they carry a message of human relations.

Now, there is one rather important point. There is a change in the weekly schedule, which you may have already noted. I don't mean one you have to make now. We'll have a lecture every morning at 8:45, in accordance with the regular routine, followed by a break and a question period, which will conclude at 10:00 o'clock. The change is that there will be no break after the question period. The discussion groups will convene in their rooms at 10:00, without a break. Cases will be discussed from 10:00 to 11:20. Don't worry about not having a break. We've heard of Hawthorne, too, and we are going to have coffee in the rooms. The whole class will reconvene back here in the auditorium at 11:30, and we will hear reports from representatives of the various discussion groups as to the results of their discussions.

Now, please meet with your group moderators in your discussion group rooms at 9:30. Your group moderators will answer any questions that you may have after this talk.