

who understands the machinery itself. Detailed understanding of individual men is no less important to at least someone in the organization, if management is going to achieve its greatest possibilities with them.

Of all the arts and professions, business (and it is both) has made the most comprehensive use of the findings of material science. Machines and operations have been brought to a level of efficiency which is the envy of the world. Any executive will probably admit, however, that his man power is not as well understood or as efficiently operated as his machine power. This is natural. It has not had the same amount of scientific analysis and co-ordination.

Here is where management can profit from appropriate measurements by the psychologist. But it is up to the executives to tell first exactly what they want measured. In fact they must find out themselves. To do this they must scrutinize, in a new analytical spirit, the details of their own past experiences with human nature in operation.

I think it is fair to say that the psychologists have so far made the greater number of friendly advances toward a new entente. The spirit of the scientist or professional man is, before anything else, that of service. He sees that accurate and scientific appraisal of human nature will help the executive to manage effectively, and will increase the profits of the business. The right man in the right place is at least as important as the right machine. Effective machines have made industry what it is. The next step has to do with men.

Both sides know this, but they have not been able to get together very successfully on an operating basis. The materials and forces in this new human engineering are not agreed upon. As psychologists are, or will be, in a position to furnish the calipers and dividers, the formulae and analyses, when they once know what is to be measured, business has by all odds the most to gain from a new partnership. Business is built on bargains for profit. It will accept this one.

If we may be allowed to anticipate the articles of agreement, they will provide: first, that executives shall set forth the list of human characteristics which, in their own working vocabulary, are the simplest and most definite to use in connection with hiring, firing, promoting and adjusting men. As executives are admittedly as successful

practical psychologists as the psychologists themselves, the latter can hardly object to this pragmatic list as a substitute for whatever one they may have themselves selected. They are sincerely anxious to be of service to business; they will undoubtedly be willing to yield a few points in this matter if necessary.

The second article will provide that psychologists shall do the work of the next step. This means that they will adjourn to their laboratories and experimental fields, and work out the tools for appraising these characteristics in detail. It will be their task to develop means of measuring the presence or absence of the qualities and abilities that the executive wants to know about in his employees. This will be the first time that the psychologists will know exactly what executives need. The executives, in turn, will be in the way of getting a considerable body of psychological data which they will feel that they can utilize effectively.

The third article will provide that when the tools are ready, business will give the makers a chance to try them out in practice. This is only fair. When they are finally adjusted, the makers will then show the executive how to use them for his particular purposes; and will help him with the technique if desired. Nor is this all that business gets; as will appear later.

The first step, then, seems to be up to the men who will get the most satisfaction and prestige from an improved technique in human engineering, the executives whose business it is to make management successful.

Of course there will have to be volunteers. You cannot get all the executives in the United States into one room. Furthermore, large groups do not generally come to any definite conclusion. If you doubt it, go to a business convention. But a small group of men who have the authority on human nature born of actual successful experience in handling it, can get results. That is an executive habit.

Having presumably put the executive to work first, it may be interesting to see what his job involves. He must make out a list of human qualities for the psychologist but obviously he cannot hand him all the terms he uses. There are hundreds. Worse, most of them have ill defined and overlapping meanings. The executive uses them

casually every day, but they mean one combination of qualities at this desk, and one not quite the same in the next office. His job then, is to select those terms which are, in his own vocabulary, indivisible into simpler terms, and are capable of reasonably consistent definition. For our present purposes we shall refer to these as "basic."

Perhaps an example will clarify both what the executive must do, and what it will mean to him when he gets it done.

"Initiative" is a much abused word, and we will follow it through our discussion as an example typical of many. It is rated as "desirable" in a president, a clerical department head, a construction boss. Yet nobody would claim that exactly the same brand of initiative is required in each. And the psychologist would have to throw up his hands in despair if asked to develop a single scientific measurement for this quality. It has too many variations.

But the case is not hopeless. A group of successful executives sitting together and pooling their experiences and observations, would probably agree without much argument that in business and industrial practice the word is used to designate various combinations and expressions of four different human characteristics. They would probably also agree that in their own daily usage, these four are indivisible into any simpler terms. That means that they have started their list of "basic" qualities for the psychologists to work on. Some psychological theories may seem to be outraged before this list is finally complete. To the executive it does not matter. When it comes to theories, psychologists do not always agree among themselves. The executive may therefore be permitted to choose those which fit his actual experience best. If psychologists are to be of most constructive help to the executive, they will have to see with him-eye to eye—even though some may feel obliged to turn and give a sly wink occasionally to their colleagues. Perhaps in the end these will find that the executive knew as much about the practical functioning of human nature as they did.

Be that as it may, the first of the four factors in initiative which the executives would probably pick out is self-reliance. A man does not "initiate" much without it. It is not enough by itself; and its necessary amount and relative importance vary under different circumstances. But it is there. And

these executives will hardly be able to think of two or more simpler terms in which they can express it. It therefore goes in the "basic" list.

Some of my psychological friends may here rise to ask a question. How are they going to be expected to develop a means for appraising a thing which has so many different objective modes of expression? Self-reliance in sports, for example, has quite a different expression from that evidenced in a business conference. And every expression is affected by a host of past mental patterns and present thoughts and emotions; it does not act freely and alone.

The answer suggested is, briefly and without going into technical details, that the psychologist find ways of evaluating the man's average level of self-reliance—his normal habits of self-reliance, if you will, or perhaps his temperamental predilection for it. These will be revealed in the man's past history, as well also as by additional tests which may be devised. The executive does not have to be told that the man's special interests may tend to increase its action in a particular case, or that unfavorable conditions may inhibit its expression almost entirely. What he wants to know is the raw material, so to speak, which he has to work with; he will assume the responsibility for bringing it out to the best advantage. The trouble now is, very often, that he has not this knowledge. He is therefore obliged to make guesses. He may expect too much of one man and fail to take advantage of the capacities of another. But he believes thoroughly that men tend to run true to form. Instead of experimenting, he wants to know what that form is likely to be. This the psychologist will be able to tell him, much to the satisfaction of both and to the benefit of the man in question.

Second among the factors in initiative our executive group would probably select fighting spirit. This is the old primitive love of combating dangers or obstacles or what not. And the expression of initiative presupposes obstacles of some kind; if there were none, the affair would simply be a procession. As between different jobs, the amount of fighting spirit required would doubtless be more variable than in the case of self-reliance; but it is often highly important and must be included as typical.

The third basic factor is energy. It might be said that a considerable output of energy is neces-