

ments of the worker, are exclusive prerogatives of the engineer. Theoretically it has been recognized that each of these subjects has its psychological aspects, to which it might be presumed that a psychologist could contribute. Practically, the management engineer has known these problems so much more intimately in their industrial setting that the psychologist unversed in factory practice has for the most part preferred to turn his energies in other directions. Indeed, it may be confessed that certain forays by amateur industrial psychologists into this territory have been ludicrous enough in their outcome to lend emphasis to this unfortunate tradition. Industrial executives must share in part the responsibility for these fiascos. Over and over again they have engaged as psychologist a novice whose claim to the title was that he had studied elementary courses in college, or perhaps had been an assistant in routine psychometric work in the Army or in a child guidance clinic. One cannot help smiling at such choices, made by business men who would never for a moment think of putting a complicated problem of mechanical development or chemical research on the shoulders of an inexperienced or half-trained engineer.

But enough by way of apology and explanation. What benefits, if any, have accrued to industrial relations in America because of the work of psychologists?

Some of these benefits we shall find are broad and general. Some are specific and detailed. They can best be envisaged after we have listed the chief industrial problems which are primarily psychological or which present psychological aspects.

#### Psychological Problems of Industry

Psychology is variously described as the positive science of conduct, the science of behavior, the science of experience. Whatever the limitation of scope implied in any such definition, the fact is that one finds today in any systematic volume on psychology, a wealth of fact and generalization with respect to human nature. Those problems of industry may be considered psychological which involve questions of human nature.

Foremost are the problems which have to do with the *worker in relation to his work*. Many such problems arise in helping the worker find the simplest, easiest, most natural ways of doing his work; conserving his energy; reducing fatigue; increasing

quality and quantity of output; eliminating personal injuries and lost time due to accidents; removing unnecessary fears and irritations connected with the work; reducing unrest, discontent and dissatisfaction with the job and with the working conditions surrounding it; and increasing the laborer's store of contentment, pride and satisfaction in his accomplishment. These are all basic practical problems of industrial management, most of them capable of at least partial solution through the application of shrewdness and common sense, but all of them offering a challenge to the psychologist to apply his science and to supplement common sense by analysis, objective measurement and experimentation. Common observation of the behavior of workers engaged in heavy labor or in work requiring close attention, might well have suggested to any sensible supervisor the economy of insisting upon appropriate properly spaced rest periods; but the fact is that this device has rarely been employed except where science and controlled experiment have first demonstrated its worth and indicated the optimal distribution of rests for the particular tasks in hand. Scarcely more than a good beginning has been made in the scientific understanding of rest periods in relation to fatigue, monotony, workers' reveries, outbursts of temper and radicalism. Here, as in other aspects of the job in its relation to the individuality of the worker, the psychologist has significant opportunities for industrial application of his science.

A second group of psychological problems arises out of the *relations between a worker and his fellow workers*. How to harness the impulse to competition, and insure a healthy rivalry for high quality of output or freedom from accidents; how to eliminate the conflicts, irritations and jealousies which sometimes clog the human machinery of the factory; how to prevent loss of working time in idle banter while supplying on appropriate occasions ample opportunities for good fellowship—these are questions which are ordinarily left to chance or to common sense. More basic is the best means of developing a substantial group solidarity, a ready helpfulness, a willingness of experienced workers to take new employes in hand and teach them the practices and ideals of the shop. Then, too, workers sometimes tend to teach each other various fears and notions leading to conscious restriction of output. They may spread an apprehension of

layoff or of piece rate cutting, when no genuine basis for it exists in reality. Here the problem arises as to how such unwholesome influences of workers on one another can be minimized, or replaced by influences which make for better mutual education and co-operation. These are complicated problems of practical social psychology.

Yet a third group of problems centers in the *relations of the worker and his immediate supervisor*. These relations may be harmonized by making sure of the reasonableness of work requirements; by making work assignments and instructions clear and definite; by introducing an equitable routine procedure of distributing work and materials, to do away with the possibility of partiality or favoritism in these regards; and by making the supervisor a skillful instructor and an understanding helper of his men, as well as a fair and just disciplinarian. The psychological aspects of these processes are sufficiently obvious.

No less psychological in essence are many of the problems arising out of the *worker's relations to the management*. Consider, for example, the assurance of steady employment. This has often been made possible through improved market analyses, business forecasting and careful scheduling of production. The effect produced on the worker by relief from the overshadowing fear of layoff is a psychological fact of major importance. So, too, with many questions of wage rates, methods of payment, and policies regarding stock ownership, insurance, pensions, housing, loans, vacations, facilities for education and recreation, and the like. The adequacy of the machinery provided for airing and prompt adjustment of grievances reflects the management's grasp of practical industrial psychology. The same may be said of its success in providing suitable recognition of merit and competence, not so much through resort to non-financial rewards and recognition (although these have their value and are often prized), but rather through proper payment by results, and adequate provision for advancement. Many economists are prompt to insist today that the problem of wages has its psychological aspects.

*Group relations* of workers and management have presented continuing problems whose psychological aspects are sometimes almost as perplexing as their more obvious economic phases. The reader need only remind himself of the misunderstandings,

the mutual suspicions, the conflicting preconceptions and unyielding prejudices which too often have beclouded the thinking of workers' representatives and employers alike, when collective versus individual bargaining, trade union versus shop committee organization and similar issues of joint relations have been brought forward.

Both parties have at times resorted to espionage in their fact finding, a practice as unsound in its psychology as in its ethics. Both have been prone to color their inquiries with preconceived conclusions. Better methods of ascertaining the truth about actual and imaginary grievances, and the purposes and practices of employer and employe alike, will tend to bring about more wholesome industrial relations. The duty of undertaking to improve these techniques of fact finding is one which the psychologist must not hesitate to accept. Already J. D. Houser, B. V. Moore, L. L. Thurstone and others have made a promising start in this direction.

The psychology of leadership requires clarification. It is not implied that there is any need for more argument or pooling of opinion as to the personal qualities which make for effective leadership within the ranks of labor or of management. What the psychologist demands is first of all a new, minute, comprehensive description and analysis of what the real, successful industrial leaders do. When this factual foundation has been properly laid, the drafting of better plans for discovering and developing the leaders of the future will not seem so complicated. Opportunity and reward for exercise of constructive leadership and originality by workers and executives of whatever status will probably then seem a most natural policy. If channels are open for the flow of ideas and ability from one department or level of the organization to another, if real leadership wherever revealed is given its chance, both individual and group relations may be expected to benefit.

Relations of workers and management are already profiting from the studies which psychologists and educators have made regarding the development of leaders. Consider the function of an executive as a trainer of men. Studies of the techniques of teaching particular skills, habits, attitudes and items of essential information have led to many generalizations with reference to the processes of training. Excellent methods have been evolved for