reasonableness of their proposals, and what explanation they might make to justify their actions, they now try to forecast the probable reaction of those they direct, and to adjust things to meet these reactions. Strangely enough, the very men who yesterday flatly denied the theory of man's evolutionary heritage today use its standards in considering the probable reaction to their proposals.

An eminent student of the human mind is quoted by Walter Dill Scott in his "Influencing Men in Business" as saying that most persons never perform an act of pure reasoning, but all their acts are the result of imitation, habit, suggestion or some related form of thinking, which is distinctly below that which could be called reasoning.

Mr. Scott continues: "Our most important acts are performed and our most sacred conceptions reached by means of merest suggestion. Great commanders of men are not those who are best skilled in reasoning with their subordinates or most logical in presenting their truths. In moving and inspiring men, suggestion is to be considered in every way the equal of logical reasoning." And I may add that their unconscious ego and defense trends have now come to be recognized as even more important influences.

James Drever in "The Psychology of Industry" says: "From very early times, speculative philosophy has been greatly interested in that very group of phenomena which constitutes the social province of the science of psychology as we understand it. Thoughts, feelings, desires, emotions were looked upon as manifestations of the mind or soul, a substance quite distinct from the matter of which external bodies consisted. Many of the deepest and most momentous problems were raised by the relations of this mind and this matter to one another. Hence, one of the chief interests of philosophers came to be to interpret both in such a way as to satisfy the demands of the human reason on the one hand, and the needs of the human spirit on the other.

"Thus was created the atmosphere in which the 'old psychology' came into being. It was characteristic of this 'old psychology' that it was either deduced from the supposed nature of the mind or soul, or it was formed by the observation and selection of those facts of experience and consciousness which seemed to support a certain view of the mind or soul, or it was reached partly in the one way, partly in the other. In any case, the old psychology could not in strictness be described as a science. It was the battleground of contending philosophical systems. The truths generally accepted as established principles were submerged in the vast mass of controversial matter in regard to which some held one opinion, some another, according to the philosophical views which required to be supported. As a result, interminable disputes obscured the very real advances in psychological knowledge which were made. Such was without exaggeration, the position of psychology from the time of Plato or Aristotle, or even earlier, until the 18th or 19th centuries.

"It is the application of the method of science in the field of mental phenomena that has given us the modern science of psychology, the so-called 'new' psychology. The 'old' definition of psychology was 'the science of the mind or soul,' or 'the science of mental or conscious processes.' The 'new' definition of psychology is 'the science of the facts of human nature and behavior, or the science of human behavior in its relation to, and dependence upon mental process." There is, indeed, a strong body of opinion among present day psychologists in favor of defining psychology simply in terms of behavior. The new psychologist rightly holds that to define his science in terms of mind or soul is to define it in terms not of facts, but of an inference from facts which might be challenged, and is therefore, entirely illegitimate.

"This new psychology really made a serious start with the application of experimental methods some fifty years ago. A quarter of a century later, when experimental psychology had already made substantial progress, systematic efforts were begun to develop applied psychology in various fields. In all respects therefore, the history of the science of psychology has been that of the other sciences from the time when it first took shape as a definite science."

In his inaugural address to the first meeting of the Industrial Section of the British Psychological Society, in April, 1919, Charles S. Myers said: ". . . . recently another stage in the evolution of psychology has been reached by the systematic study of unconscious processes and of their relation to consciousness. Whereas the earlier philosophical psychology and the experimental school which arose from it, had been mainly intellectualistic, giving undue prominence to the play of reason, this later stage has been characterized by the emphasis it lays on the importance of instinct and the emotions, and by its devotion to the study of unconscious processes.

"As in the case of biology, the results obtained from experimental psychological methods, and indeed, those methods themselves, have begun to be applied to practical purposes—first to Education, next to Medicine, and most recently to Industry, thus creating three applied sciences, those of Educational, Medical and Industrial Psychology; and the British Psychological Society is now instituting three special sections of the Society which are to be respectively devoted thereto.

"Under the application of psychology to management, I include the consideration of the psychological causes of industrial discontent and restricted output, the psychological advantages of different methods of payment and supervision, and other conditions which affect the efficiency and happiness of the workers. During the last few years a flood of light has been thrown on the importance of the emotions and on the changes which they effect and to which they are subject. We now recognize how prone we are to rationalize, i.e., to give an intellectual reason for actions which are really prompted by emotional states, or by subtler influences which are unknown to us or which for good reasons dare not be faced. We now recognize that in order to avoid causing excessive self-depreciation, an emotion may undergo a process of 'projection.' Thus instead of reproaching ourselves, we may attribute the reproach to others; hence arise delusions of suspicion and even persecution. Or, for the same purpose, an emotion may be 'inverted,' e.g., shyness becoming concealed by an affected boisterousness, the desire for a person of the opposite sex by aversion, submissiveness by defiance. We understand now more fully the psychological basis of worry and anxiety, the importance of their early treatment, and the psychotherapy of the functional nervous disorders to which, if unresolved, they may give rise. The application of such new advances to the problems of industrial unrest is sufficiently obvious."

I feel that this modern view of man strikes definitely at the barrier which has stood in the way of the development of management as a science. The tendency, whether conscious or unconscious, which I see among executives, to accept the findings of modern biology and psychology as a basis for dealing with man, is the most hopeful sign of the day, not alone for the future of management and administration but for the whole social order.

AMID the waters, blown stormy by the blast of all these forces, management stands at the helm of industry. Labor may bring about a change in its composition and relations; Science in its methods and materials, but neither can change its functions. The man at the wheel may be replaced, may be put under a new authority, may be regarded differently by the crew, and may work with different instruments in a different way, but the functions performed remain constant, essential under every conceivable circumstance. It is important, therefore, that we should devise a philosophy of management, a code of principles, scientifically determined and generally accepted, to act as a guide, by reason of its foundation upon ultimate things, for the daily practice of the profession. The adoption of this or that principle in this or that plant will avail but little. Management must link up all its practitioners into one body, pursuing a common end, conscious of a common purpose, actuated by a common motive, adhering to a corporate creed, governed by common laws of practice, sharing a common fund of knowledge. Without this not only have we no guarantee of efficiency, no hope of concerted effort, but also no assurance of stability. (Oliver Sheldon, *The Philosophy of Management*, p. 284).

BOTH for training and for the movement of personnel, the existence at the head of the educational system of the factory of an enlightened and far-seeing administrator, who realizes the extent to which his system of training can affect the whole management of the business in the future, is an invaluable asset. Next to the training of foremen, the training of clerks of the new order will be his most important task. The training of the clerk, indeed, so that he may take his legitimate position in the ranks of the highly developed system of management which is growing before our eyes, is a necessary and practical recognition of tendencies in industry which promise to make a highly trained and broadly educated staff indispensable to efficient administration. (Oliver Sheldon, *The Philosophy of Management*, p. 279.)