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## RELATION OF CO-OPERATION TO MORALE

THE increasing stringency of the labour position and the ever more searching demands upon the man-power and woman-power of Great Britain are steadily driving home the lesson that the central problem in efficient production is that of securing effective co-operation. That problem is encountered in the munition factories, in the shipyards and in transport; it is the dominant factor in solving the important problem of absenteeism. The true secret of the high production-levels of 1940 lies less in the long hours worked than in the spirit of the workers. The whole nation had been lifted to a level which made for effective co-operation and high morale.

To maintain morale and co-operation at that high level throughout the course of a long war is no easy task, but it is the key to victory. Without it we are likely to relax, and jeopardize all the harvest that now promises to be reaped from the African campaigns and the months of planning, vigil and training that made their success possible. Primarily, that is a responsibility of management, as the Select Committee on National Expenditure has rightly insisted, that term being understood to include the production departments of the Government and not of the industrialist alone.

As Prof. Elton Mayo points out in his foreword to Prof. F. J. Roethlisberger's recent book "Management and Morale"\*, we must first of all recognize that whereas material efficiency has been increasing for two hundred years, the human capacity for working together has in the same period continuously diminished. It is true that the desire for continuous and intimate association in work with others persists, but the very strength of this persistent desire retards rather than promotes effective co-operation. The relative isolation of small groups and their constant feeling of insecure tenure induce an attitude of suspicion or even hostility to other groups or, in industry, to management. This is the road by which we drift to what historians call stasis—the disintegration of a community into an infinity of mutually hostile sections. In war or in peace alike, chaos and downfall are the sure result.

Clearly we cannot leave collaboration in a society any longer to chance. Prof. Roethlisberger's volume, addressed primarily to business executives, is a study of what is involved in collaboration, and he indicates methods not in conflict with the democratic tradition which can be applied to the remedy of social and industrial disorders. He shows that collaboration is a field for serious study and research, and he should also stimulate much fruitful thought regarding the handling of certain problems of personnel in industry, perhaps more especially in regard to incentives and the very complex issues involved in absenteeism. In particular his book should lead to an attempt to aim our methods at the maintenance of co-operation and not merely at mechanical efficiency.

\*Management and Morale. By Prof. F. J. Roethlisberger. Pp. xxii+194. (Cambridge, Mass.: Harvard University Press; London: Oxford University Press, 1941.) 11s. 6d. net.

Prof. Roethlisberger starts from the Western Electric Company's researches at the Hawthorne Plant, which although they have been described in such books as Elton Mayo's "Human Problems of an Industrial Civilisation", T. N. Whitehead's "The Industrial Worker" and "Statistical Studies in Industrial Research", are still far from being as widely known as they deserve. These researches demonstrated that the responses of workers to what was happening about them depended on the significance those events had for them. His book, in fact, is an essay on human situations in business; it examines the hypothesis developed in these researches, uses their method to explore the complex human relations in a business organization and suggests the conditions for effective collaboration.

Industry, it is urged, is a social as well as an economic phenomenon, and leadership should be based on understanding as a prerequisite. The social structure of any particular company determines the kind of collaboration, the kind of people who will stay in the company, and the kind of people who will reach the top—an observation which is highly pertinent in considering the proposals in regard to the post-war structure of industry and trade recently advanced by a group of a hundred and twenty industrialists in Great Britain. Many industrial problems clearly need re-definition in terms of social structure; it is a fallacy to assume that with an intelligent understanding of the conditions necessary for getting raw materials and the technical production and distribution of goods, we need give little attention to the problems involved in co-operative effort.

The War at least has taught us that we cannot safely assume that the human problems of effective and purposeful association in work can be left to take care of themselves. Fundamentally, indeed, it might well be argued that the problem of civilian morale in war-time is that of so integrating individual and group activities with the national needs and purpose, that there is the maximum satisfaction of individual and of group and national demands. Obviously that objective cannot permit the misunderstanding or friction which will arise if a particular economic activity is torn apart from its social fabric and treated as a thing in itself. Neither can management continue to subsume the problems of group collaboration under the technical problems of production and efficiency. The social, as well as the physical, structure of an industrial concern must be considered, and regard had to the effect of a technical change introduced by the management on the social as well as the physical location of the individuals and groups of which modern industry is built up. Above all, there must be explicit understanding by the management of the social structure of industry, and effective communication up and down the line as well as between the different groups within the industry.

The importance of communication cannot easily be overstressed. Prof. Roethlisberger's chapter on "Words and Men" deals a shrewd blow at the jargon in which inefficiency and muddle so often attempt to clothe themselves. If communication and collaboration between groups in industry are to be effective,

it is as important, if not more important, for management at the top to understand and appreciate the behaviour of the people at the bottom level, as it is for the bottom group to understand the logical and economic objectives. On that truth rests the whole case, in the larger sphere of world affairs, for a statement of war aims, and Sir Stafford Cripps's recent speech to the International Youth Conference in London went far to show that this is at last being appreciated by the Government. The situations and sentiments of individuals and groups which make up an organization, a society or a nation must be understood by its leaders before they practise the art of persuasion or assurances to secure loyalty, confidence and co-operation.

The importance of personnel management was stressed in the latest report of the Chief Inspector of Factories. Accepting the fundamental conception of industry as a problem of personnel as well as an economic phenomenon, Prof. Roethlisberger shows that the first human problem in a business concern is to secure the co-operation of people in attaining its collective purpose. The problem has three major aspects: first, relating to the channels of communication within the organization through which employees can learn about their duties and obligations in relation to its purpose, and express their feelings and sentiments about their methods and conditions of work; secondly, maintaining a social balance within the organization so that employees by contributing their services are able to satisfy their desires and hence are willing to co-operate; and thirdly, effecting the individual adjustments required to assist particular employees with difficulties to become better oriented to their situations.

These human problems are not simple or easy to solve, but they must be faced in any efficient industrial organization; and until they are faced and solved generally, our war effort will lack something of its full power. That much is clear from the reports of the Select Committee on National Expenditure and of the Chief Inspector of Factories. What is equally important but by no means so fully appreciated is that if we neglect them we may well lose the peace. The human problems are indeed the crux in planning for the future. No planning which fails to take account of them is likely to be effective. Whereas it is important to have the machinery of planning established and the broad lines of policy determined in readiness, it is equally important that the purposes and objectives of that planning should be made known so as to secure the measure of co-operation that will be indispensable to success.

It is the great merit of democracy that its methods and traditions promote the solution of this problem of maintaining under given conditions the type and kind of equilibrium which make for the maximum efficiency and collaboration. Much of the mischief of the past thirty years has come, as Prof. Ernest Barker shows in his prescient "Reflections on Government", from our disregard of the democratic process. Prof. Roethlisberger's study tends to support the view that friction and failure in business enterprise is due to the absence or imperfect development of

those methods of open discussion and voluntary agreement which characterize the democratic State.

There is no distinction between the problems of morale in an industrial organization and those in any other organization or society. There are the daily problems of maintaining internal equilibrium, that is, of maintaining the kind of social organization in which individuals and groups working together can obtain human satisfactions that will make them willing to contribute their services to the economic objective of co-operation. There are the daily problems of diagnosing possible sources of interference, liquidating human tensions and strains among individuals and groups, helping people to orient themselves to their work groups, and detecting blockages in the channels of communications. These indeed are the very problems which tend to be overlooked, at least outside of the Armed Forces, under the stress of war, and without leaders skilled in diagnosing human situations we cannot preserve the social values which are so essential in a co-operative system. Prof. Roethlisberger's book, with all its suggestiveness and practical hints, is by and large another exposition of the truth of the ancient proverb, "Where there is no wisdom the people perish". Nothing could more surely hasten the day of full victory than leadership which, from top to bottom, handled the human problems of production and organization—and reconstruction—with understanding, imaginative insight, and the same courage which marked the finest hours of the summer and autumn of 1940.

## COSMOGONY AND RELIGION

### The Beginning and End of the World

Riddell Memorial Lectures, Fourteenth Series, delivered before the University of Durham at King's College, Newcastle-upon-Tyne, in February 1942. By Prof. Edmund Taylor Whittaker. Pp. 64. (London: Oxford University Press, 1942.) 2s. 6d. net.

EVERY year the Riddell Trust arranges for a course of lectures on "the relation between religion and contemporary development of thought". The Lectures for 1942 deal particularly with the relation between cosmogony and religion, and it is a matter for congratulation that the trustees have found a lecturer who is well-versed in both science and theology.

The greater part of the book consists of an exposition of the findings of astronomy and physics as to the beginnings and endings of the universe. This is admirably done, and would suffice by itself to make the book one of outstanding merit. Yet most readers will be mainly interested to see what Prof. Whittaker has to say on its religious implications. He tells us that the purpose of his lectures is to maintain the doctrine "that God, the first cause and last end of all things, can, from created things, be known with certainty by the natural light of human reason". From the evidence of science that the world is of finite duration in time, he deduces an argument against pantheism—if God were Nature and Nature God, then it would be necessary for God to be born and perish, which is absurd.

Apart from this, there is no sustained effort to

discover God "from created things", or through any form of science. Whittaker holds that the influence of science on religion must be psychological rather than logical—new developments in science can never alter the Christian faith, but only man's receptivity to that faith. Here he is, of course, thinking of the immutable cast-iron faith of the Roman Church, rather than of the plastic faith of the liberal Anglican. This latter has often changed its shape (in so far as it has any shape) through the impact of new scientific truth—as, for example, through the recognition that our earth is not the physical centre of the universe, but a fragment which has become detached from a grain of sand in that vast swirling sand-storm we call space. With this in his mind, can the enlightened churchman of to-day be expected to hold, with his pre-Copernican ancestors, that the revelation to Moses on the mountain, or the birth of the Holy Child, were events of cosmical importance? Or, with Whittaker, that the Incarnation gave to this small planet the value of the universe, and to a narrow span of time the value of eternity? We wish that Prof. Whittaker could have discussed such questions, but he debars himself from so doing at the outset.

The reflection that "mankind appears for a brief space of time, a short instant in the duration of the stellar system, and then disappears" brings him to the age-old question: "Can the grand sum total of existence be so utterly futile as that?" To this he replies that in the copepods, which exist in countless billions in the sea, the individual counts for nothing and the race is everything, but that when we come to man the race loses its importance and the individual life acquires the supreme value. "The goal of the whole process of evolution, the justification of creation, is the existence of human personality." But this, as Whittaker agrees, is a matter of "what it is reasonable to believe", and not of what science encourages us to believe. Species after species lived on earth for many millions of years before extermination befell it; there can be no scientific warrant for supposing that man, who has not yet survived his first million years, and seems already to be making a fair mess of things, is the final culmination of creation.

The plain fact seems to be that cosmogony has disappointingly little to say on religion. The two never make real contact, still less come to grips—how could they? "The things that are seen are temporal, but the things that are not seen are eternal." Cosmology may confirm the first half of the Apostle's dictum, but provides too narrow a platform for the discussion of the second half. Science can speak with philosophy, and philosophy with religion, but attempts to short-circuit philosophy have usually failed, and perhaps must always fail; the universe does not carry its secrets written on its sleeve.

J. H. JEANS.

## BRADLEY'S DIALECTIC

### Bradley's Dialectic

By Dr. Ralph Withington Church. Pp. 189. (London: George Allen and Unwin, Ltd., 1942.) 10s. 6d. net.

THERE is real satisfaction for a lifelong student of philosophy, when he finds the loyalties of his youth emerging from obloquy and arresting the attention of a generation whose temper of mind is inevitably alien to his own. It is thus at the present