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Industrial Recruitment and Educational Policy

THE valuable section in the final report of the Balfour Committee on Industry and Trade, which considered education as a factor in industrial and commercial efficiency, emphasised the urgent need for each great industry to make its own educational needs the subject of thorough and systematic examination, "particularly because the changing forms of organisation and mechanical equipment and the subdivision of occupations which characterise some of the more important industries are continually modifying the nature and extent of their educational needs, and these changed needs can only be fully known to those actually engaged in industry".

The five years which have elapsed since this report was presented in March 1929 have subtracted nothing from the cogency of its argument. On the contrary, the growing intensity of international competition supplies a strong insistent force, which was previously lacking, impelling those engaged in industry and commerce to consider how they should improve the efficiency of their personnel as well as of themselves. It has become clear, too, that those personal qualities, on which we have relied in the past far more than on specialised knowledge, are by themselves inadequate to meet modern demands for leadership and must be supplemented by greater knowledge and a wider outlook. Finally, the chaotic conditions to which the economy drive of the last two years have reduced education in Great Britain are causing misgivings in the minds of the most stubborn regarding the capacity of the next generation—whether in rank and file or in leadership—to maintain our higher standard of living in the face of modern competition.

Suggestions for co-operation between industry and educational authorities have frequently been put forward, and were indeed worked out in detail in the report of the Malcolm Committee, which recommended that the Board of Education should establish a small special body representative of the views of employers, workers, local education authorities and teachers to undertake national negotiations. In the report on Trade Schools on the Continent, which was issued in 1932, two inspectors of the Board of Education directed attention to the danger to our industrial efficiency which is presented by the growing vertical immobility of labour, as well as to the necessity of organising our institutions for technical educa-

tion less in response to a demand from below and more in response to the actual requirements of industry as seen by its leaders. In his recent book on "Education for Industry and Commerce in England", Mr. A. Abbott makes an even more emphatic plea for a complete review of our methods of industrial recruitment, training and promotion. He urges that each industrial organisation should consider carefully first what types and grades of workers it needs and in what numbers: and secondly, from what types and grades of schools these should be drawn.

The relation between industrial recruitment and educational policy and development has been overshadowed by the unemployment question, but the growing extent of juvenile unemployment is once again focusing attention on this problem. If only as a means of checking continuous recruitment into occupations where juvenile employment is already disastrously high, steps must be taken to afford the youth of the country suitable training for those industries which can offer them a reasonable prospect of employment and advancement in their chosen work; they must not be left to enter those which are merely exploiting wholesale their defenceless situation.

As a first step to this end, it is obvious that each industry must be able to formulate its own requirements and to do so continuously, so that with the selection of recruits there is associated a definite plan of training and promotion. In spite of the discussions which have centred round training for management, and the care which is now taken in some industries in the training of recruits, whether drawn from the universities, from technical schools or from secondary and elementary schools, the bearing of the developments in post-primary education recommended under the Hadow scheme on industrial recruitment and promotion is as yet scarcely realised by industry. The net result of educational selection at the age of eleven years for post-primary or other schools with a leaving age above fourteen, will be that the members of the selected group will greatly outstrip those of the unselected group in competition for the more responsible and attractive posts of industry. Its responsible officers will to an increasing extent come from a group of individuals picked out at an early age for prolonged education, and its rank and file will come from the larger group of individuals not so selected.

It is accordingly desirable not merely that industry shall formulate its requirements as to the

training to be given before and after recruitment, the standard and type of education desirable in its recruits, whether for the rank and file or for the more responsible positions. It is equally important that the whole methods of recruitment should be reviewed and modified or replaced by better methods desirable. Recruiting policy must take account of the changed conditions of education and not be content to follow blindly the methods of generations ago, regardless of their suitability or unsuitability.

There is little doubt that a re-examination of recruitment policy would speedily result in enlisting a considerably higher proportion of students who had received a good previous education in part-time classes of the technical schools, and thus tend to raise the general standard of the rank and file of industry. The quantitative aspect of recruitment is, however, equally important. Each industry should be able to give a reasonably accurate estimate of the number of recruits it expects to require during a period of years from each class of school—those with students at a leaving age of fourteen years: the post-primary schools and the technical schools giving a full-time education up to eighteen: and those coming from the universities or technical colleges of university rank.

Industrial planning on this scale is long overdue. The mischief which has been done by extravagant statements regarding the demand for chemists or other classes of scientific workers, for example, causing an influx of students to such courses in numbers far exceeding the capacity of the industry to absorb them, is difficult to assess but has been widespread in the last decade. Similar or even more vicious conditions are to be found among every category of student from the elementary school upwards. Even at the present time such industrial planning cannot be dismissed as impracticable or visionary. Such books as Prof. G. C. Allen's "Industrial Organisation in Great Britain" have demonstrated the imperative need for industry to face the facts, if any, if our lost prosperity is to be recovered or indeed our standard of life maintained.

One incidental result of such an estimate would be to bring out into clear relief those industries which are making little use of men with a wide and thorough scientific training, or relying entirely on relatively untrained sources for the recruitment of their rank and file. Lack of efficiency, because those responsible for the direction of an industry

did not possess sufficient knowledge and training to make use of the facts now available for them, would be speedily correlated with its true cause, and the community would be in a strong position to refuse to allow palliatives in place of remedial measures.

On this ground alone some opposition may be expected to any proposals for the planning of a policy of technical education and industrial recruitment. The advantages which such a policy offers, however, are too solid to be thwarted by mere reactionary or prejudiced views. There is first the imperative necessity of securing for the service of industry competent workmen and skilled foremen, who possess the ability to meet the demands of this age for a new kind of skill based on considerable intelligence, a sound general education, a willingness to develop fresh interests and a capacity for adaptation to fresh tasks. Secondly, there is the advantage of securing the staffing of industry generally with university graduates, or men with wide scientific knowledge and training, not merely for the purpose of research but also for securing that full advantage is taken, in every sphere, of the new tools which science is constantly forging, whether for new production, increased efficiency, or the safeguarding of life and health.

We here touch on perhaps the most fundamental need of all. It is probably true to-day that most, though not all, industries have a research organisation in one form or another which is adequate to their present needs, and there are indeed a number of industries in which new knowledge is being gained more rapidly than it is utilised. There are, moreover, many branches of industry in which there is no real hope of applying the new knowledge gained by the various research organisations until the qualifications of the men at the top have been improved.

This is largely a matter of training for management, of seeing that those recruits for industry who are destined ultimately for its management or administrative staff should have had a broad general education on which they have built a first-rate scientific education. Apart from the absolute necessity of adequate scientific knowledge for sound and prompt decisions as to whether and how a new piece of knowledge can be utilised, whether its utilisation is likely to be permanently profitable, its reaction on other production and development, whether a difficulty encountered in works practice should be solved on the spot or

more wisely referred to a research organisation or department, the significant check to the vertical mobility of labour makes the old haphazard habit of recruitment for management inadequate. We can no longer expect that recruits of the requisite calibre will continue to work their way up from the bottom, or that those who do raise themselves to some extent will possess the wide knowledge and breadth of vision required of those in administrative or managerial posts.

Technical knowledge is, of course, only one of the factors required in the higher management of industry. It is equally important that a policy of industrial recruitment should take full account of the various institutions, such as the Department of Business Administration at the London School of Economics, of Industrial Administration at the University of Manchester, or the Institute of Industrial Administration, which are specifically directed towards training for management. The training given in those courses must be regarded rather as fitting the students to take fuller advantage of their industrial experience, and to qualify themselves ultimately for the more efficient discharge of administrative duties. The courses are not a substitute for wide technical and scientific training. They are rather complementary, and require planning in close relation to industrial requirements and opportunities, if mobility of staff on the technical side is not also to be discouraged.

The demand which a policy of industrial recruitment makes for co-operation between industry and educational authorities is obvious. It is less apparent, however, that its achievement demands a widespread interest in the community, and particularly a general conviction that technical education is a most powerful instrument for maintaining and increasing technical efficiency. Unless public opinion regards technical education not as an attempt to train well-disposed and ambitious individuals for higher posts but as a definite effort to train an industrial army, officers and rank and file alike, which by its *moral* and technique will safeguard and strengthen the economic life of the State, there is unlikely to be forthcoming the support which will undoubtedly be necessary if the opposition of such backward industries as the cotton industry to a planned policy is to be overcome.

There are at any rate signs that a considered policy is within the bounds of possibility. The alarming position of juvenile unemployment in Lancashire has already focused attention on the

exploitation of juvenile labour in the cotton trade in the absence of a recruiting policy, and has led the Lancashire authorities to initiate their own plan for raising the school age and working the Hadow scheme. A definite policy with regard to the recruitment of laboratory assistants for scientific laboratories, who in the past have provided an unhappy example of a blind alley education, has already been adopted by some industrial firms and promises to mitigate or avoid this difficulty. In addition, there is a growing tendency for professional organisations of scientific workers, such as the Institute of Chemistry, to interest themselves in technical education, whether in post-graduate classes, or in the training for higher positions in evening or part-time classes of those already engaged in industry.

The association of scientific workers is an essential element in the elaboration of an adequate policy. The task of educating public opinion as to the bearing of technical education on industrial efficiency, whether among the leaders or the rank and file, must fall largely on them. On their researches and investigations the continuous development of technical education depends. In their personal capacities, whether in industrial or educational posts, they must make important contributions to the detailed elaboration of policy. There are few fields in which larger demands for public service are made on the profession of science than in just this field of technical education, upon which the industrial future of Great Britain now so closely depends.

The solution of our problems of education for industry and commerce, and the elaboration of adequate and harmonious relations in regard to recruitment between industry and education, depend largely upon the capacity of the organised scientific industrial and commercial professions to exert deliberately and continuously the same liberalising influence on standards of education as the so-called liberal professions have exerted less consciously and actively in past centuries. Technical education from one point of view is the training of industrial personnel, and this is an essential factor in the permanent recovery of industrial prosperity. From another point of view it is the use of applied science as a means of higher education; and to demonstrate our ability to use applied science as an agent of education as previous generations used the classics may well prove to be one of our greatest achievements in this century.

African Folk-Lore

Myths and Legends of the Bantu. By Dr. Alice Werner. Pp. 335+31 plates. (London, Bombay and Sydney: George G. Harrap and Co., Ltd., 1933.) 15s. net.

DR. WERNER is best known in the field of African philology, for her knowledge of Bantu tongues is probably unique, and beyond doubt these acquirements have greatly facilitated her researches into the mythology of the people dealt with in this work. Such a patient and discerning investigation must therefore command great respect.

Folk tales have, through the ages and all over the world, always had an attraction for mankind, otherwise they could not have survived, but it is only during the last fifty years or so that they have received attention from analytical minds. Thanks to the researches of E. B. Tylor, Sir James Frazer and others, the study of the legendary lore of primitive folk has been accorded a definite place in anthropological science, and its importance is now fully recognised. As the author remarks in her preface, it now seems incredible that Moffat in 1842 could state that a description of the manners and customs of the Bechuana would be "neither very instructive or edifying", and another distinguished missionary referred to the "absurd and ridiculous fictions" of the tribe. This attitude persisted in East Africa to much more recent times, but information dealing with beliefs, customs and arts has of late years poured in from all quarters.

We have in the work before us a *corpus* of mythological material the wealth of which is staggering, and it is only owing to its painstaking division into classes by the author, that the student can obtain a grip of the essentials.

As will be well known to most, the term Bantu has little racial significance, for it refers solely to a language group of people. That is to say, over a vast extent of Africa we find masses of people, often of diverse physical characteristics, all speaking languages referable to the same original tongue. The persistent uniformity of structure in the various branches of Bantu speech over such a vast area is a remarkable phenomenon, when we consider that it was adopted by many racial groups which must have had languages of their own, and of which there is now but little trace.

Besides the language relationship, there is another remarkable fact, namely, that those to