

BRAIN AND INTELLIGENCE.

Lecture by Professor Woollard.

In the Institute lecture room, on Wednesday evening, Mr. C. H. Dicker (president of the Workers' Educational Association) took the chair before an interested audience, when Professor H. H. Woollard gave a lecture on "The Brain and Intelligence." The lecturer, who is Professor of Anatomy at the University, said that when the physicist left his well-controlled experiments in which there were few variables and entered the field of biology, in which everything appeared variable and unpredictable, he sometimes formulated the hypothesis that the phenomena of mind were due to spirits. To him who started from the contemplation of the mental performances of the genius, appeared also the futility of attempting to understand mind in relation to the brain. Such a one saw mentality as a spiritual function. He believed that mind had evolved, and that the mental complexity depended on the complexity of the underlying neural processes. For a long time the statement had had currency that the highest psychical functions were associated with the brain, and in particular with the cerebral cortex. Though long repeated, the statement had remained vague and woolly.

progress, however, the result of numerous investigations, and particularly as the result of the work of Sir Henry Head. Head developed the theory that perception was a dual process. We had two orders of sensations, one which was dyadic, and one which might be called epiritic. The former was aroused by painful or noxious stimuli, and the nervous impulses travelled from the surface of the body into the central nervous system, and were finally gathered together and synthesised in a mass of nerve cells which lay at the base of the brain. This area, where we experienced painful sensations, was distinct from the cortex, and functioned at an earlier period in evolution. Those impulses give rise to reactions which were distinguished by their massive, usually involving the whole animal. The finely graded responses which arose from the other mode of perception, the epiritic or intelligent impulses were aroused by touch and mild degrees of warmth and cold. They were relayed to the central nervous system, and finally reached the cortex of the brain. Here they formed the basis of all discrimination, of comparison, of form, size, weight, texture, and so on. When disease affected only the cortex of the brain we did not lose our perceptions of our ideas of weight, size, texture, and so on became disordered. Our identification and judgment of concrete objects broke down. Our responses to such perceptions were normally finely graded, skilled, and related to the kind and degree of the perception.

These ideas, said the professor, were so revolutionary at first that they had been subjected to the greatest criticism. However, as a result of a vast amount of research on nerve injuries in man, of the study of the symptoms of brain disease, and particularly as the result of investigations in the comparative anatomy of the nervous system, the conclusions appeared to be well and truly established. Normally the more lately acquired epiritic form of sensitivity controlled the earlier, cruder dyadic type. Disease might, however, throw this control into abeyance, and the lower levels become released. Such release showed itself in the exaltation of the pleasant or unpleasant nature of the stimulus, and patients had recorded that contact with the surface of the body felt more pleasant or unpleasant than before, or, as one put it, the sensations he felt were more artistic, more feminine. The cortex of the brain was then a discriminative organ where the perceptions were divorced from their feeling tone, and where they were built up into our judgments, comparisons, and ideas of the concrete objects which we projected as the external world about us. Feeling was subdued, and the crude emotional responses were suppressed. That achievement of evolution in giving intelligence the dominant role, and so enlarging its organ by the enormous development of the cerebral cortex in man, was of more than medical interest. It was worth remembering in these days, when so much was attributed to the libido, to the emotional drive, the life force, and so on. The degree to which the animal could distinguish between various perceptions could be measured. The construction of mental tests involving the production and deduction of relations and the mathematical analysis of the results led Spearman to conclude that every act involving intelligence was made up of two factors which he called G. and S. The G. factor represented the general ability which entered into every act involving intelligence. Its potentiality was inborn. It developed with age, reached its maximum about the fourteenth to the sixteenth year of life, and thereafter, so long as health was good, remained constant. It exhibited racial differences, great individual differences, but sex differences were insignificant. G. then represented the fundamental neural processes. It worked in terms of excitation and inhibition. The nervous system could be looked on as a reservoir of neural energy whose potential depended upon its level. It flowed from the general store into each mental operation. The S. factor represented the aptitude possessed for any particular performance. Our aptitudes followed the law of probability. The majority of them were mediocre, but all possessed some which were extremely bad, and some which were extremely good. In that sense everybody was both an idiot and a genius. The aptitudes (depending on the number and efficiency of the nerves making up the cortical analysers) were susceptible of training, facilitation, and canalization. It was the problem of education to discover and deal with the specific aptitudes of the individual. The only way to increase the G. factor was to choose our parents wisely.

WORKERS' EDUCATIONAL ASSOCIATION

ELEVENTH ANNUAL CONFERENCE.

There was a good attendance of members of the Workers' Educational Association at the eleventh annual conference of that body, which was held in the lecture room of the Institute, North-terrace, on Thursday evening.

The president (Mr. C. H. Dicker) occupied the chair, and said he hoped the conference would be interesting and instructive. Some people had said there was not much benefit to be derived from connection with the W.E.A., but he had observed cases where students had obtained substantial practical advantages.

The Annual Report.

The chairman moved the adoption of the annual report.

The report states that there are 40 organisations affiliated with the association and refers also to the series of free public lectures conducted during the past year. The clubs connected with the association, the Dramatic Society and the Ramblers' Club, have all been successfully conducted, and the book service has become an important part of the association's activities. It has been decided, after due consideration, to change the policy of the committee for the future in reference to the educational activities of the students. With a view to improving the quality of the work six proper tutorial classes will be formed in English literature, economics, theory and harmony, science, psychology, and philosophy; the first three of these will go into their second year and finish in 1929, while the last three will be three-year classes, and will finish in 1930. In addition to this, two of the public speaking classes will enrol tutorial students among the ordinary students, and these students will do more intensive work than their fellows.

The report was adopted.

A report was submitted by the joint committee of tutorial classes.

Intensive Study.

Mr. W. Cuthbertson initiated a discussion on the question, "Are the W.E.A. students likely to do intensive study?" He said the worker began life inefficiently because he had not had the opportunity of studying important problems. The worker was more absorbed generally in finding how to live at all rather than how to live properly.

Mr. W. Skitch said by widening its activities, the W.E.A. had provided what some people seemed to regard as a cheap form of amusement.

Mr. C. Read said the object of the W.E.A. was not to teach people how to make more money, but to improve the education and make the student better able to appreciate the facts of life.

Mr. E. R. Dawes said they must provide an incentive for the worker, because intensive study meant more labor for an already over-worked brain and body. Unless there was a definite inducement the worker would not display an inclination to go on with intensive study.

Mr. J. Burgess said the W.E.A. stood for education for education's sake, and for the love of it.

Principal E. S. Kiek said the statistics showed that the economic classes had experienced the greatest falling off. If the workers were desirous of obtaining knowledge regarding economics, they should have attended in better numbers. He refused to believe that the worker did not desire anything better than an extra pound or a few hours less per week. If that was true of the workers, then the outlook for Democracy in Australia was gloomier than he believed it to be.

Miss K. Hotson said the workers desired shorter hours, so that they could take up their studies and not be as tired as they were to-day after a long day's work. She was proud of the curriculum of the W.E.A.

Mr. E. G. Biaggini said they could not judge the success of the W.E.A. by numbers.

Mr. G. McRitchie remarked that a substantial majority of the W.E.A. would be prepared to go on to further studies.

Mr. R. J. Thompson opened a discussion on "The Value of Discussion and Criticism in Class," and Mr. C. Read and Inspector Ham took part.

Mrs. E. E. M. Nicholls introduced a discussion on "What Can be Done to Induce Students to Make Better Use of Class Libraries?" She thought such libraries should be made easily accessible to the students, and those who had read some of the books should endeavor to encourage other students to read them.

Messrs. F. Lonz, E. R. Dawe, J. Bryant, E. G. Biaggini and Miss Hotson took part in the discussion.

Election of officers:—President, Mr. E. R. Dawe; vice-presidents, Miss A. L. Tomkinson and Mr. Z. Goring; treasurer, Mr. J. Burgess; auditors, Messrs. W. A. Barron and C. J. Page; central council, Mrs. C. R. Morris, Miss K. Hotson, and Messrs. C. H. Duckett, W. Ham, G. Wheelodon, W. Cuthbertson, A. G. Roberts, H. F. Penny, H. Gilmore, and C. Read; joint committee, Miss Emerson and Messrs. E. R. Dawes, G. Wheelodon, and F. Goring.

Prof. Sir William Mitchell

Next Tuesday Prof. Sir William Mitchell, K.C.M.G., Vice-Chancellor of the University of Adelaide, will celebrate his sixty-seventh birthday. Of all the learned men connected with the University in this city none is more highly esteemed than Sir William, who was Hughes Professor of Philosophy and Economics from 1894 to 1923—a period of 29 years, which was the most progressive in the history of the University—and he is now Emeritus Professor.

In January, 1927, following the jubilee celebrations of the University, the professor was created K.C.M.G. in recognition of his service to the University and to higher education. Sir William was born at Inveravon, Banffshire, Scotland, son of a farmer, and took his degrees of M.A. and D.Sc. at the University of Edinburgh.

ELDER CONSERVATORIUM.

Fine Organ Recital.

The large audience at the Elder Hall on Monday evening was sufficient proof of the keen interest taken in the Conservatorium concerts, and the fine organ recital given by Mr. John Horner made a striking introduction to the series of concerts for the 1928 season.

In the absence of Dr. E. Harold Davies (director), Mr. I. G. Reiman briefly introduced the new member of the staff of the Conservatorium. Mr. John Horner had come to take the position occupied for a fairly long time by Mr. Harold Wylde as a teacher of the organ and pianoforte. Mr. Horner would also continue the tradition of the Conservatorium by giving a series of organ recitals during the winter. Among the members of the staff and the students Mr. Horner had already won friendship and confidence. He wished him a most successful career, not only on his own account, but for the benefit of the musical life of South Australia.

Mr. Horner was received with hearty applause.

The whole programme was admirably calculated to bring out the varied characteristics of organ music, and to afford scope for the individuality of the organist, and of the other performers. The use of the organ in accompanying a single voice or instrument requires a special control of the great instrument, and makes considerable demands upon the player. Here Mr. Horner was remarkably successful. The programme opened with Bach's "Fantasia and Fugue in G Minor" (the great G minor), and this Mr. Horner brought out the full power of the organ in crashing chords, and a whirling torrent of sound through which the elaborate complexities of the fugue gradually emerged. His handling of the whole writing was impressive, and the climax was well brought out. By way of contrast came "Variations" on an old English melody, "Heartsease," by Geoffrey Shaw. In these the essential simplicity and rhythm as of old English country dances was admirably sustained.

Miss Hilda Gill was the vocalist, and her singing of Dvorak's "Biblical Songs" (opus 99, book I), with organ accompaniment, was strikingly good. She sustained the character of the music wonderfully, and gave an intensely dignified and finely devotional interpretation. Mr. Horner managed to make the organ part strongly descriptive, but never overstressed. "Clouds and Darkness" was impressive, and singer and organist made "Lord, Thou Art My Refuge and My Shield" particularly beautiful. "Hear My Prayer," with the varied effects in the accompaniment, increased the impression made, and "God is My Shepherd" was full of beauty. Miss Gill's rich sustained tone was delightful. "I Will Sing New Songs of Gladness" made a fine close to this selection.

That accomplished cellist, Mr. Harold Parsons, accompanied by Mr. Horner on the organ and Mr. George Pearce on the piano, rendered the striking Hebrew air "Kol Nidrei" (Max Bruch) with especial effect and feeling. The way in which the organ was made to balance and blend with the tone of the cello was especially remarkable. Applause was loud and prolonged.

Mr. Horner's other organ numbers were a chorale-fantasia on Darwell's 148th, "Ye Holy Angels Bright" (Harold Darke). This composition is dedicated to Sir Walford Davies, to whom Dr. Darke was formerly assistant at the Temple Church. "Piece Heroique" (Cecar Franck) gave still further scope for organ colouring, and the concluding group, composed by Louis Vierne, organist of Notre Dame, Paris, made a fitting climax to a notable recital.

ORGAN RECITAL.

MR. JOHN HORNER AT THE CONSERVATORIUM.

The appointment of a successor to Mr. Harold Wylde, who resigned his position as teacher of organ and pianoforte at the Elder Conservatorium about two years ago, attracted a good deal of attention when it was announced last June that Mr. John Horner, a brilliant young Scottish organist, had been engaged. There was a large audience at the Conservatorium last night when Mr. Horner gave a recital. He was heartily received. Mr. Horner has had wide experience as an organist,



Mr. John Horner.

and he was on the teaching staff of the Glasgow Athenaeum School of Music. He was also organist with the Scottish Orchestra, and conductor of the Glasgow University Orchestral Society. During the war he served in the Royal Air Force. The acting-director of the Conservatorium (Mr. I. G. Reimann) welcomed Mr. Horner and said he felt sure that the new organist would be happy in Adelaide, and that he would prove a tower of strength to the musical life of the city. The custom of giving midday recitals would be continued.

Freshness and virility are characteristic of Mr. Horner's playing, and the programme contained works by living composers as well as by J. S. Bach. Adelaide audiences have had too few opportunities of hearing recitals of such excellence. The first number was the Bach Fantasia and Fugue in G minor, strong and inspiring in the fantasia and wonderfully free in the fugue, and Mr. Horner was given a rousing ovation on its conclusion. The second was the charming Variations on an old English melody, "Heartsease" (Geoffrey Shaw) a happy and melodious contrast with the majesty of the Bach number. Chorale-fantasia on Darwell's 148th, "Ye Holy Angels Bright" (Harold Darke) was instinct with health and movement, and "Piece Heroique" (Cesar Franck) was a notable contribution to the programme. The last was a bracket by Louis Vierne, organist of Notre Dame Cathedral, Paris. Lied had a short figure singing softly throughout, Pastoral was an ingenious piece of shepherd piping, and Final, from First Symphonie, provided a thrilling ending to the concert. Mr. Horner's next appearance will be awaited with pleasure.

Miss Hilda Gill sang a group of Biblical songs (Dvorak) to organ accompaniment. She sang well in a group which suited her admirably. They spoke of clouds and darkness, trust, petition, content, and gladness, and were broad in phrase and of peculiar beauty. Mr. Harold Parsons also assisted with the cello solo, "Kol Nidrei" (Max Bruch), Mr. Horner being at the organ and Mr. George Pearce at the piano. It was worthy of the occasion, and the audience would have liked more.

String Quartet

Mr. Charles Schilsky, leader of the Conservatorium string quartet, intends organising the usual season of subscription concerts in the institute hall this winter. There will probably be three, one each in June, July, and August. One of the numbers set down for performance is Schubert's "Trout" quintet, which has not been heard here for some years. The last record which I can find of its performance was on June 12, 1911, when the performers were Mr. H. Heinicke (first violin), Miss Sylvia Whittington (second violin), Miss Clarice Gmeiner (viola), Mr. Harold Parsons (cello) and Mr. Carl Engel (double bass).