

ing process of education, it was not nearly long enough in anybody to exceed the possibilities represented by the neurones which the nervous system contained. That fact conferred upon the brain a capacity for improvement far greater than that possessed by any other of the physical endowments of man. And, unlike the improvements which exercise might bring about in any other tissue in the body, which could not be conveyed to descendants, improvements achieved by the individual in the training of his neurones to ordered activity were communicated to others, and particularly to his descendants, through the medium of language. The part that that must have played in the mental evolution of man, and must still play, was incalculable in its magnitude. It must have occurred to very many that language and tradition constituted a form of inheritance in which acquired characters could be handed down from generation to generation; but the conception of external inheritance, as a factor of survival-value in the evolution of man which obeyed laws totally independent of those which controlled the chromosomal inheritance of purely physical characteristics, had never, so far as his reading extended, been clearly expressed by any biologist until 1923, when he had incorporated a very brief statement of the idea in his book on "The Chemical Basis of Growth and Senescence." In the preceding year Carr Saunders, in an important work, entitled "The Population Problem," had definitely set forth the thesis that language had conferred upon man an externalized form of inheritance, without, however, pointing out the essential physical basis of that form of inheritance, that which alone made it possible—man's superabundant provision of neurones, designed rather to furnish his racial than his individual needs. In 1924, Professor T. H. Morgan again independently expressed the same idea in his "Mellon Lecture," on "Human Inheritance," delivered at the University of Pittsburgh.

**Man's Growth Period.**

Man was born with few and simple instincts of a general and indefinite character, not specifically shaped to fit his environment with any degree of exactitude. Moreover, his period of immaturity was enormously prolonged in comparison with that of the majority of animals, and in comparison with his span of life. His period of dependence and tutelage was correspondingly prolonged, and throughout the whole of that large proportion of his life, he was exposed to the influence of external inheritance in its most authoritative and impressive form—that of parental government, guidance, and instruction. The external inheritance of the race was first transmitted to the individual, through the parents primarily, and through collective society secondarily. The power of speech enabled man to store up ideas in an extraordinarily concentrated form; but in addition to the storage of ideas in language, there was a similar storage in customs, folk-lore, institutions, tools, laws—all of which represented accumulated effects of inheritance of the fruits of experience of ancestors whose existence was merely a shadow and a legend. How different was the situation in the case of an organism in which the nervous system was stereotyped, limited, and neurones precisely adapted to the needs of existence, the experience of the race merely a multiple of identical units which were the experiences of its constituent individuals. Tradition constituted the normal medium whereby the accumulated externalized inheritance of man was transmitted from one generation to another. Among primitive peoples tradition was a stereotyped and crystallized product of their communal and ancestral experience. Let new and unforeseen conditions arise, as when the white man arrived in Australia and revolutionized the environment of the aborigine, and the tradition-shackled man betrayed his inadequacy and his lack of adaptability. The tradition which was designed, by unconscious trial and error, to adapt the individual to the life before him, then rendered him so singularly ill-adapted as to lead veritably to his own destruction. The invention of writing, and above all that of printing, had tremendously hastened the decay of fixed tradition through setting side by side the glaring contrasts afforded by the traditions of different races and different sections of the same race. Instead of one tradition the child of modern civilization received a multiplicity of traditions. Those of its parents naturally had the greatest weight, and reached the child at the most impressionable age. But the child was assailed from without by the traditions of countless other people, conveyed to it by the spoken and the written word. The mutual clash of these annulled the authority of tradition itself; and there arose in its stead a competition among co-existent ideas, some of which were successful and adapted to the environment, others ill adapted and conducting to disaster. Thus there came about a natural selection of ideas and of those traditions which would be handed on to the succeeding generation, a natural selection among a multiplicity of possibilities which did not concern physical inheritance in the least. From a survey of what natural selection had done to improve the physical inheritance of animals and plants in the past, they might perhaps attain to an inadequate conception of what it might achieve in the future towards improving the mental external inheritance of mankind; so that when tradition decayed humanity enters upon its period of greatest hope, but also its period of greatest suffering. For they might regard tradition as an instrument for conserving and perpetuating the happiness and the stupidity of mankind.

REG. 16. 12.26.

## COMMEMORATION.

### University Celebration.

#### A Notable Year Reviewed.

Academic success was typified at the annual commemoration of the University of Adelaide, in Elder Hall on Wednesday afternoon. A brilliant assemblage graced the hall, and heard with interest the Chancellor's review of a notable University year, the annual address, given this year by Professor Brailsford Robertson, and applauded the large number of candidates presented for degrees and diplomas.

The ceremony was preceded by an organ recital, and the stately University procession was ushered in to the strains of the "Song of Australia." On the platform were the Chancellor (Sir George Murray), the Vice-Chancellor (Professor Mitchell), the members of the council, the professors and lecturers, members of boards, members of the Senate, and the Registrar (Mr. F. W. Eardley). His Excellency the Governor (Sir Tom Bridges) was present as visitor to the University, and was accompanied by Lady Bridges, and attended by Mr. Legh Winser.

The Chancellor in opening the proceedings, thanked His Excellency for his presence, and stated that Lady Bridges, in her speech on Monday evening, had reminded them that they might not have another opportunity of welcoming him as visitor to the University. If that should be the case, he asked His Excellency to accept their assurances of sincere regret, and best wishes for future happiness and prosperity. (Applause.) A bond that would remain had been forged by the conferring of an ad eundem degree, which, he hoped, would be as much a source of pleasure to him as it was an honour to them.

#### University Staff.

The outstanding event of the year was the celebration of the jubilee of the University. The programme had been carried out with complete success. Sir George Brookman ceased to be a member of the council in November, and for reasons of health had not desired to be re-elected. The service Sir George had rendered during the 25 years of his membership had been of inestimable value, and accounted to a marked extent for the sound financial position of the University. Sir George took with him the gratitude and respect and good wishes of every member of the University. The pending resignations of Professor Darnley Naylor and Professor Wood-Jones would create vacancies that would be difficult to fill. The loss would be shared by the whole State. Never had they been more fortunate than when Professor Naylor and Professor Jones came to Adelaide. Professor Naylor returned to England and Professor Wood-Jones was going to Honolulu. Both would be heard of again. They would always be proud to remember that once they were professors in the University of Adelaide. (Applause.) Until Professor Naylor's resignation took effect the chair of classics would be occupied by Dr. T. G. Tucker, Emeritus Professor of Classical Philology in the University of Melbourne. Professor Tucker, who was the most distinguished classical scholar in Australia, had consented to render that service in response to an invitation. The University had also made important gains. Professor W. K. Hancock, Fellow of All Souls, Oxford, and former Rhodes Scholar, elected from the whole of Australia, had arrived during the year to take up his duties as Professor of History, in succession to Professor Henderson; Professor A. L. Campbell, of Sydney, appointed to the Chair of Law last year, had entered upon his duties at the beginning of the academic year; Dr. C. S. Hicks, of Otago University and Trinity College, Cambridge, appointed lecturer in human physiology and Sheridan Research Fellow, arrived in August. In recognition of his merit and to afford relief to Professor Brailsford Robertson, a new chair of human physiology and pharmacology had been created and conferred upon Dr. Hicks. The Sheridan Research Fellowship would be held with the chair.

#### Generous Benefactors.

The benefits received during the year had been of great value and importance. The first was the endowment of the Chair of Law by Sir Langdon Bonython, their greatest living benefactor, with the magnificent sum of £20,000. (Applause.) That gift enhanced the dignity of the school of Law, and set free a portion of the revenue which was previously applied to the maintenance of the chair. The whole of the money, however, would not be diverted to other purposes, and the efficiency of the school would be kept up, and, as the occasion required, increased.

It was proposed to establish a separate lectureship in jurisprudence at once, and instruction in additional subjects was in contemplation. By a resolution of the council the chair would be entitled the Bonython Professorship of Law. That further proof of Sir Langdon's benevolence made doubly welcome the bronze bust of him by Mr. Alfred Drury, R.A., presented by Mr. Justice Angus Parsons. The next two gifts were announced at the jubilee congregation. Sir Josiah Symon's splendid offer of £10,000 for the erection of the women's portion of the University Union, to be known as the Lady Symon Building, had advanced the movement so far as to enable plans to be finally approved and the site fixed. At the last meeting of the council it was decided that tenders should be called immediately. Sir Joseph Vercoe's generous gift of £5,000 for the endowment of research in the medical sciences had been devoted, in compliance with his wishes, to the support of The Australian Journal of Experimental Biology and Medical Sciences, which was managed for the University by the Medical Sciences Club of South Australia. The far-reaching effect of these benefactions would become more and more apparent as time went by. Mr. J. T. Mortlock had shown a great interest in the work of the Waite Agricultural Research Institute by the gift of £2,000 for the erection of a building or the equipment of a laboratory. Mr. Mortlock had set an example which might be commended to all who honed to derive benefit from the work of the institute. On behalf of the University he tendered grateful thanks to Mr. Mortlock. (Applause.)

#### Research Work.

At the request of the Education Department, they had arranged for the delivery of lectures at night in many subjects of the arts and science course, in addition to the day lectures. They would be undertaken by a separate staff. The extra cost would be met by an increase in the Government subsidy by £3,000 a year. To the Government they were indebted for the new physics and engineering laboratory. That splendid addition to the University buildings, the first to be erected wholly with public moneys, was one of the most striking evidences of the growth of the University since its foundation. The work of the Waite Institute was rapidly fulfilling expectations. A soil survey of the State was in progress under Professor Prescott, who had acted as Director during the absence of Professor Richardson. The plant diseases, "takeall" and tomato wilt, the latter with funds provided by the Commonwealth Council for Scientific and Industrial Research, were being investigated by Mr. Geoffrey Samuel. Professor Richardson, who would return in a few weeks, had been appointed to conduct a research into the mineral deficiency of Australian pastures by the Empire Marketing Board in London, and a pound-or-pound subsidy was offered. Professor Osborne, who had attended the Pan-Pacific Conference in Japan as one of the representatives of the Commonwealth, and who would return in a few days, was carrying on observations and experiments in regenerating pastoral country at the Koobermore Reserve, which had been set apart by Messrs. Hamilton & Wilcox. At the Darling Laboratory, Professor Brailsford Robertson had conducted research into cell growth and the origin of cancer. His work had been recognised in Italy by his election as a foreign member of the Royal Academy at Rome, which was the oldest academy of science in Europe, and one of whose foundation members was Galileo. Professor Robertson had been elected to the section of biological sciences, in which only one member was appointed annually. A request had been received from the Council for Scientific Research for Professor Robertson to be allowed to investigate the problem of the nutrition of animals for the whole of Australia, and it was now under consideration. The work of anthropological research among the aborigines, initiated by Professor Wood Jones last year, would be furthered by an expedition to the MacDonnell Ranges during the vacation. Mr. E. W. Holden had generously contributed £100 towards the cost of the expedition. The resolution passed by the Legislative Council that the site occupied by the mental hospital at Parkside should, when available, be devoted for the purpose of residential colleges within the University, was welcomed. Apart from that, the most urgent matters were further land in the city and a new chemical laboratory, a separate building for the library, and a chair of modern languages.

Warm congratulations were offered to Sir Archibald Strong on the publication of his verse translation of Beowulf, and to Professor Hancock on his work entitled "The Life and Times of Ricasoli," the latter receiving the compliment of leading articles in The Times Literary Supplement and The Spectator. They hoped to have the honour of admitting His Royal Highness the Duke of York to the degree of Doctor of Laws during his visit in May. The Fisher lecture in commerce next year would be delivered by the Prime Minister. The Vice-Chancellor returned in August, after delivering his Gifford lectures at Aberdeen, and he was now preparing the lectures for publication. During Professor Mitchell's absence the duties of Vice-Chancellor were fulfilled by Professor Rennie, and he desired to express to both of them his heartfelt thanks, and to the registrar, for the assistance they had rendered during a very exacting year. (Applause.)

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## THE DEGREES LIST.

The candidates for degrees and diplomas were then presented.

**Law.**  
The Dean of the Faculty of Law (Mr. W. J. Isbister) presented the candidates for degrees in law:—For the Degree of Bachelor of Laws:—James Francis Brazel, William Donnanthorne, John Scott Hardy, Roland Henderson, Geoffrey David Hollidge, Haynes Leader.

**Medicine.**  
The Dean of the Faculty of Medicine (Dr. W. Ray) presented the candidates for degrees in medicine and surgery:—For the Degree of Doctor of Medicine:—Kenneth Stuart Hetzel, M.B., B.S.; Helen Mary Mayo, M.B., B.S. For the Degrees of Bachelor of Medicine and Bachelor of Surgery:—Cyril Brooke Carlin, James Murray Cotton, Donald Edward Drever, Sydney Bayly Forgan, John Edward Formby, Oscar Westcott Frewin, Kevin Glastonbury, Keith Douglas Gray, Albert Walter Grote, Norman Stannus Gunning, James Estcourt Hughes, Carl Clifford Jungfer, Raymond Hannay Kaines, Rita Margaret McAnaney, Alistair Campbell McEachern (Everard scholar), Jack Moreland, Berkeley Sunter Muecke, Rupert Kirk Reeves, Douglas Munro Salter, Gemmel Tassie, Rudolph Hermann von der Borch, Esmond Thomas Walsh, Geoffrey Wilson Morey (in absentia). For the Degrees of Bachelor of Medicine and Bachelor of Surgery:—Ad eundem gradum:—Carl Emil Dorsch, M.B., Ch.B. (Edin.); Cedric Stanton Hicks, M.Sc., M.B., Ch.B. (Otago, N.Z.), Ph.D. (Camb.).

**Dentistry.**  
The Dean of the Faculty of Dentistry (Sir Joseph Vercoe) presented the candidates for degrees in dentistry:—For the Degree of Doctor of Dental Science:—Cecilia Boase Madder, B.D.S., Arthur P. Reading Moore, B.D.S. For the Degree of Bachelor of Dental Surgery:—John Cumming Burns, Roy Gilmore Ellis, Malcolm Stewart Joyner, Charles Leslie Phillips, Linda Lovibond Thomson.

**Arts.**  
The Dean of the Faculty of Arts (Professor J. McKellar Stewart) presented the candidates for degrees in arts:—For the Ordinary Degree of Master of Arts:—Reginald Keith Sorby Adams, B.A., John Colville, B.A., Mary Hope St. Clair Crampton, B.A., Edna Mary Grosvenor, B.A., Adolf Oscar Kriehn, B.A., Ludwig Adolf Emanuel Leidig, B.A., Harold Meriton Lushey, B.A., Jabez Percy Harold Tibbrook, B.A., Rudolph Bronner, B.A. (in absentia), George Elton Mayo, B.A. (in absentia). For the Honours Degree of Bachelor of Arts:—(Classics)—Ida Margarete Dorsch, Yvonne Lois Wait. For the Ordinary Degree of Bachelor of Arts:—Leonard Nicholls Allen, Mary Gilbert Barwell, Marie Beatrice Child, Edith Grace Dickinson, Magdalene Hedwig Dorsch, Dorothy Mary Fyfe, Minnie Henrietta Foxwell Gartrell, John Garfield Goldsworthy, Howard Berthold Hoskins, Leonard Percy Johncock, Elizabeth Lawson McKechnie, Margarita Anna Flora Mara, Hedley Lindsay Noblett, Ena Beatrice Faith Orrock, Edward Clarence Parsons, Alec Gordon Paul, B.Sc., Irene Blanche Rogers. For the Ordinary Degree of Bachelor of Arts:—Ad eundem gradum:—Frances Aimee Stevenson, B.A. (Tasmania).

**Science.**  
The Acting-Dean of the Faculty of Science (Professor J. R. Wilton) presented the candidates for degrees in science:—For the Degree of Doctor of Science:—Leonard Keith Ward, B.A., B.E. For the Degree of Master of Science:—Paul Samuel Hossfeld, B.Sc., Thomas Abraham Le Mesurier, M.A., B.Sc., Geoffrey Samuel, B.Sc. For the Honours Degree of Bachelor of Science:—Chemistry—Rupert Jethro Best, Mathematics—Richard Francis Canney, M.A. Physics—Ronald Gladston Mitton, Luther Ernest Crosby Wilson. For the Ordinary Degree of Bachelor of Science:—Arthur John Sorby Adams, Alfred Lisle Dawson, Effie Wylie Deland, Stephen Ernest Harvey Gibson, Gwynfred Jones Alexander Owen McPherson, Leonard Seymour May, Sidney Moyle, M.A., Terence Brady Paltridge, John Schomburgk Walker, Herbert Alexander Crane (in absentia), Arthur John Owens (in absentia), William Frederick Claude Pohlman (in absentia), Alan Robert Trist (in absentia). For the Degree of Master of Science:—Ad eundem gradum:—Cedric Stanton Hicks, M.Sc., M.B., Ch.B. (Otago, N.Z.), Ph.D. (Camb.); Frederick George Holdaway, M.Sc. (Queensland, in absentia).

**Applied Science.**  
The Dean of the Faculty of Applied Science (Professor R. W. Chapman) presented the candidates for degrees in engineering and for diplomas in applied science:—For the Degree of Master of Engineering:—Rex Whaddon Parsons, B.E. For the Degree of Bachelor of Engineering:—Howard Hamlyn Forder, Albert Pringle Kay, Norman Ambrose Pringle Kay, Arthur Edward Sharman, Edwin Joseph Truman Symonds, Frederick William Symonds, William Weston Winwood. For the Diploma in Applied Science:—Howard Hamlyn Forder, Robert Pringle Kay, Norman Ambrose Plunkett, Arthur Edward Sharman, Edwin Joseph Truman Symonds, William Weston Winwood.

**Music.**  
The Dean of the Faculty of Music (Professor E. Harold Davies) presented the candidates for degrees in music:—For the Degree of Bachelor of Music:—Robert Daley Scarlett (in absentia).

**Commerce.**  
The Chairman of the Board of Commercial Studies (Mr. S. Russell Booth) presented:—For the Diploma in Commerce:—Alfred Victor Adamson, Alan Claude Bray, Thomas John Brazel, Leonard Sawtell Brown, John Harold Chambers, David Lancelot Dawson, Mervyn Perry Hooper, Elizabeth May Jones, Percival Richard Henry Judd, Harold Trent Lloyd, William Albert Kenneth McKee, Leonard Edward James Maunder, Francis...