

MIND AND THE UNIVERSE

Sir William Mitchell's Gifford Lectures

"The Place of Minds in the World."

Gifford Lectures at the University of Aberdeen, 1924-1926. First series. By Sir William Mitchell, K.C.M.G., Vice-Chancellor of the University of Adelaide. London: Macmillan & Co.

The lectures provided for by the will of Lord Gifford, and restricted to subjects relevant to natural religion, have been delivered at Scottish Universities by scholars of high standing in philosophy and science. The names of such men as Lord Balfour and Professor James Ward may be mentioned in this connection. That Sir William Mitchell should have been invited to give the lectures in 1924-1926 was a gratifying recognition of his eminence as a thinker and writer on psychological and metaphysical subjects. The present volume contains the first of his two series, and deals learnedly with the place of minds in the universe. Another volume, reproducing the second series, on the power of minds will naturally follow. The questions Sir William handles are exceedingly difficult, affecting the source, the nature, and the validity of human knowledge of the universe. Considerations arising from recent scientific developments are involved, and of these he shows a mastery no less remarkable than the depth of his understanding of fundamental philosophical problems.

Knowing Is Living

Where is the mind? Sir William mentions three places, which at first, as he says, do not fit well with one another. Two of them are in Nature—one is "the world about us, where we feel at home"; the other is "the cavity of the skull, where we should feel in prison." The third is the mind's real place—it is to feel, or be subject. The mental surface is the subject, being organised in relation to object. "The advance from physical to mental life advances Nature from a world of stimuli as causes to a world of objects as causes." Knowing is living, and not merely a means of living. This principle may seem too narrow or too abstract. The narrow reading of it is that what is felt by us occurs in the brain, and that since all we know has been felt, the brain is the place of the mind. There, we are to suppose, the mind crowns us in the cortex as with a halo. "We want everything to be in space, or in something, such as consciousness, which may borrow the properties of space." So it appears reasonable to assume that if things are known, knowledge must defer to the structure of our minds and their organs. But mental acts are very different from any physical acts. "To place them in space, to place any conscious living, is to place a writer's thoughts in his lines. His meaning is theirs, but is not there; and the words would not have been there but for their meaning. 'Paradise Lost' remains on the shelf day and night; when read and brought to life it has nothing independent of its words, and it would not survive their loss. That connexion of thought and words is a case of the connexion of mind and brain."

Relation Between Mental And Physical

The narrow reading of the principle with which we started sets a distance between the mental experience and its object—between the seeing of a light, say, and the light. This, as Sir William puts it, is a "surface gulf" between thought and its object. To read conscious from unconscious life is also to omit the relation to objects that constitutes knowledge. Such omission is the abstract reading of our principle. It is the relation of mind to its object that constitutes knowing, and between the thought and the object this abstract reading cuts the connexion. No bridge is visible between thought and its object. No movement can be seen between the physical correlates of a feeling—that is, the molecular changes in the brain that correspond to the feeling—and the feeling itself; nor is there any likeness between the feeling and its physical correlates. So both the narrow and abstract readings bring us to "disconcerting gulfs;" the first is the unbridged distance between a thought and its object, the second the absence of relation between mental and physical. Yet neither prevents us from actually knowing Nature, the reason being that we begin with knowing. Nature is not responsible for the gulfs till we place minds in our heads.

"The Living Line"

Every phenomenon is in two systems or presents two aspects—it is "to" a subject and "of" an object. Apparently the latter aspect makes the phenomenon part of Nature, while the former makes it part of a mind. The gulf created by the abstract reading is bridged by the relation of mind "to" its object. Our conscious life extends

outside our bodies, and, without moving to things, reaches them where they are. This is the "living line" between seeing the light and the light. There is also a "correlation line" between seeing the light and its neural or physical correlates, and the error of the abstract reading is that it fails to distinguish between this line and the living line. It is across or beneath the living line, not across or beneath the line between feeling and brain change, that the work of the mind is done. The living line is not within the brain, but between seeing the light and the light, hearing the music and the music. The correlation line within the brain is between seeing the light and the corresponding brain events.

Are Phenomena Only Shadows?

But there is a third and a deeper gulf, which is inferred from the history of Nature. Instead of regarding phenomena as real parts of Nature, why not, it is asked, regard them as just products within us, feelings developed from the vague, uneasy sensations of tiny organisms? Hobbes expressed

a familiar view when he said that the qualities of things are mere mental seemings and apparitions, and that there is nothing outside us except motions that cause these apparitions. One answer to this expresses a different view—that Nature is not the producer; that Nature itself is a product, coming from a source to which we must attribute both Nature and minds, that source being a world beyond all knowing across the third or final gulf. Both these views treat phenomena as unreal, but while one treats them as shadows from the mind, the other treats them as shadows from a Nature which is out of knowledge. Sir William considers both these extreme views better than the traditional view which makes phenomena hybrids—neither pure Nature, nor pure mind. But all of them have been expressly rejected by the recent revolutions in scientific and philosophical thought.

An Intelligible Universe

The hold that the "gulfs" have had upon us Sir William traces back to the placing of mind or feeling in the head, and that in turn to the tyranny of conceptions which regard space and time as independent entities, and which have had to give way to the space-time continuum of relativity. In the last part of his book Sir William discusses the relativity theory and the new discoveries in physics—quanta, electrons, and wave mechanics—in their bearing on the question whether we can now have the picture of an intelligible universe into which mind will logically fit. The world view generally accepted during the last part of the nineteenth century was that though the real world, responsible for the known ones of Nature and mind, lies beyond knowledge, it nevertheless gave them common laws which could be found. Structures had evolved from lifeless to living, and thence to minds and societies, all exhibiting the same laws. More recently the situation has altered so completely that Weyl has felt justified in saying that human reason is now able to follow the intelligence which has planned the universe.

Does The Mind Create Its World?

But have we in truth discovered the real world? Eddington, reverting to an idealistic view, says that "the world which we have to build from the crude material is the world of perception, and the process of building must depend on the nature of the percipient." The creative action of the mind "endows with vivid qualities certain selected properties of the world." It follows that the new picture of the world given by advanced physics and relativity has to meet the charge that it is only an intellectual concept, or, in Eddington's words, that "the mind has but regained from Nature that which the mind has put into Nature." As to this Sir William says:—"That may seem to increase the grudge against phenomena, and shift it to new shoulders. And it is better for them to take up the old man of idealism than again to double and evade him. We need be merely a little willing to analyse the rubbish-heap, and the burden falls. Thought slips to one side, that being its function in making object. Then the object has two parts that thought separates and connects; there are the existing things that it wants to grasp, and there is the organ for grasping them that it has created."

Mental Life

The free handling of space and time by relativity has released our minds. "From being a succession of emerging miracles, the course of evolution becomes phenomenon of the full or universal nature which we had formerly copied instead. Not that Nature grows mental, or otherwise metaphysical, by containing its time instead of rolling there. Its expansion to greater concreteness makes us more willing to face the place of our minds, and to turn from their place and function with reference to Nature to their place and function with reference to the rest of the world. It is the feat of consciousness, thought impossible, that the expansion is the feat of Nature. The evolution to mental life, and that

alone, advances Nature to a world of objects and their power. The coming of objects and their becoming a sensible world, made them look a late appendage hanging to living frames, and mental lives look parasites. But having seen that the sensible world offers the whole, and its history, we take up afresh the early saying about Nature that a growing thing is known from what it grows to: it is Nature. Nature proper, which refuses to confine the body of our mental life to the 'province packed up in two yards of skinne.'"

Adv. 17-6-33

SOUTH AUSTRALIA'S DISTINGUISHED SONS

Brilliant Contributions In World Of Science

WIDE RECOGNITION

South Australia has regretfully watched many figures associated with its intellectual development pass on—as Professor W. K. Hancock will pass on next year—to other spheres of work, and, in many cases, world-wide recognition. Some have been South Australian born; others have been so closely associated with this State that they may fairly be regarded as South Australians. The scientific world, in particular, has been enriched by their work and discoveries, and, in proportion to its population, South Australia stands close to the front rank in its contributions to science.

Two of the most eminent contemporary scientists, Sir William Bragg and Professor W. L. Bragg, his son, come within the category—one because Adelaide was his sphere of work from 1898 to 1908, and the other because it is his birthplace. Sir William Bragg laid the foundation of many of his future discoveries here, and since then he and his son have achieved international recognition, including the conferring of the Nobel Prize upon them in 1915 for their work on X-rays and crystals.

After leaving Adelaide, Sir William Bragg became Cavendish Professor at Leeds University, and in 1923 was appointed director of the famous Davy-Faraday Research Laboratory. American universities have conferred their highest honors upon him, and universities and learned societies in every country in Europe have heaped distinctions upon him. His son, who received his early education at St. Peter's College, and the Adelaide University, promises to rival his father's attainments.

University's Part

The Adelaide University played a large part in moulding the career of Professor Brailsford Robertson, whose researches into biochemistry and animal nutrition seem destined to play an important part in the pastoral development of the interior of Australia and other arid countries. He obtained his first degree at Adelaide, and after his work had won him recognition in America, he returned here to pursue his studies. His death two years ago ended what promised to be a career unusually rich in achievement. In addition to his scientific studies, his few publications revealed him as a distinguished and charming writer.

Professor Wood Jones had made his name before he came to Adelaide in 1919 to fill the chair of anatomy, but his seven years' work here was an important stepping stone to his later studies in anatomy and pathology in the East which have gained him wider recognition.

Antarctic Discoveries

Twenty-eight years' association with the Adelaide University almost entitles Sir Douglas Mawson to be termed a South Australian, and the State of his adoption shares in the distinction which his Antarctic discoveries have won for him. He was appointed lecturer at the University in 1905, and in the meantime has made four voyages to the Antarctic, first as a member of the Shackleton expedition in 1907, then as a member of the Magnetic Pole journey of 1908, and as leader of the 1911 to 1914, and the 1929 expeditions. Societies in the Old World and the new have paid tribute to his brilliant work.

South Australia also claims another who has been intimately connected with Polar expeditions—Sir Hubert Wilkins—for Mount Bryan East was his birthplace. Two other South Australians who blazed new trails were Sir Ross and Sir Keith Smith, pioneers of the air route from England to Australia.

Engineer And Scientist

One of the Empire's most distin-

gished engineers, Professor E. H. Lamb, of the University of London, was born in South Australia, and, at a time when evidences of glacial invasions were attracting wide attention, the discoveries of two South Australians—Professors Tale and Howchin in Sturt and Inman Valleys—won them world-wide notice.

Among contemporary scientists, the work of Professor Richardson, of the Waite Institute, in the field of agricultural science, is valued far beyond the bounds of the Commonwealth.

For some time Adelaide, unknowingly, sheltered an archaeologist whose name is now known throughout the scientific world. While employed in the clerical branch of the Tramway Trust, Mr. Allan Rowe devoted every moment of his spare time to the study of archaeology. Leaving Adelaide, he soon afterwards became associated with an expedition engaged in excavation work in Egypt. Since then expeditions of which he was in charge, financed by American universities, have made archaeological discoveries which have made him one of the foremost figures in his science.

Art And Literature

In the fine arts, South Australia's list of honor contains distinguished names. In art, Will Ashton, associated with this State by family ties and long residence, has caught its atmosphere and character on his canvases and carried it overseas. His works hang in the galleries of England, France, and America.

Septimus Power spent much time in South Australia before he went to Europe and made his name as a painter of hunting pictures and animals, imbued with a wonderfully vital quality. His war pictures were some of the most convincing in the line at the Royal Academy.

Bushland pictures, capturing the magic of the Australian scrub, and incomparable gum tree paintings, have achieved for Hans Heysen, who came to South Australia when 7 years of age, a distinguished place in Australian galleries.

Literature in South Australia has been a plant of slow and shy growth. Adam Lindsay Gordon, hailed as Australia's first poet, was an Englishman, who came here after his formative years, but in many of his lines he caught and vividly portrayed the beauty of the Australian bush, and the stirring rhythm of galloping hoofs.

Though not a South Australian, Professor Sir Archibald Strong produced some of his best work here, as Professor Hancock has done.

In the field of novelists South Australia can claim Guy Boothby and "Smiler" Hales.

Dipping more deeply into history, we find two distinguished figures associated with South Australia. Sir George Grey, one of the great Empire builders of the 19th century, during his six years' administration at Government House, pioneered an economic reconstruction as valuable as his work in South Africa and New Zealand; and the name of Torrens has been carried beyond the Commonwealth in association with the Torrens system of land tenure, a policy inaugurated in South Australia and since incorporated in the legislation of many other countries seeking stability and simplicity.

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Music Examinations Recitals

To enable pupils in country districts to gain a deeper knowledge of the set pieces of the Music Examinations Board, two pianoforte recitals will be relayed from Elder Conservatorium on Thursday. Miss Maude Puddy will be the pianist. The first will be heard at 4 p.m., and the second will be at 8 p.m.

The feature of the Conservatorium staff's classical hour programme at 9 p.m. on Friday will be the string quartet in A minor by Schubert.