



WALLACE RUDDELL AYKROYD

Obituary Notice

WALLACE RUDELL AYKROYD, CBE, MD, ScD

(30 July 1899–7 February 1979)

Wallace Aykroyd had a long and distinguished career in international nutrition. His shrewd common sense, a capacity to get on with people, organizing ability and a pleasant literary style enabled him to draw up plans and policies that led to better application of nutritional knowledge and the consequent improved health of peoples in many countries of the world.

He was born in Dublin in 1899, where his father, a member of a family of Bradford wool merchants, had gone to take charge of the Irish branch of the Yorkshire firm. His mother was the daughter of a well-known Dublin tobacco manufacturer. He was educated at the Leys School, Cambridge, and at Trinity College, Dublin, where he graduated MB, BCh in 1924, having represented the college at hockey and won the Vice-Chancellor's prize for English prose. After holding junior hospital appointments in Dublin, he went quite by chance as a house surgeon to the general hospital at St John's, Newfoundland. There he became interested in food deficiency diseases, and this appointment determined his subsequent career. At that time the fishing community in Newfoundland were poverty-stricken and many of their families were grossly malnourished, beriberi being endemic among them. On returning to Dublin he wrote an MD thesis on beriberi and the associated malnutrition.

The Lister Institute, London (1928–1931)

His MD thesis attracted the attention of Sir Charles Martin (obituary notice, *Br. J. Nutr.* (1956) 10, 1), the Director of the Lister Institute, who arranged for him to work at the Institute with a Beit Memorial Research Fellowship. He joined a team of research workers, which included Hariette Chick, under the direction of Sir Charles Martin. Each had a great influence on Aykroyd and to them he owed his professional training in research and nutrition. He published two papers whilst at the Institute. One was a field survey in Newfoundland (1) in which accurate measurements of the diets of families in a fishing community were related to the incidence of beriberi; the other demonstrated that parboiling of rice before it was milled protected it against the large losses of vitamin B₁ that occur when raw rice is milled (2). The losses of vitamin were assayed using the rat growth method. Aykroyd was subsequently to direct and advise on many dietary surveys and to organize extensive analytical work on the nutrient value of foods. His period at the Lister Institute gave him the personal experience of laboratory and field work in nutrition which made him a practical administrator.

Before his fellowship had expired, he had decided to try to make a career for himself in nutrition. At that time there were no appointments in nutrition in Great Britain and so he accepted a post in the League of Nations at Geneva, for which he had been recommended by Sir Henry Dale.

League of Nations, Geneva (1931–1935)

The League of Nations was set up in 1919 by the victorious allied powers. Its creation owed much to the political leadership of President Woodrow Wilson whose idealistic fervour was received with enthusiasm in Europe but not by the US Senate or by the American people as a whole. Wilson was permanently incapacitated by a stroke in October 1919 and thereafter

the League received only half-hearted support from the USA. A League Health Organization was formed in 1920, primarily to deal with the vast epidemics of typhus and other diseases that were raging in Eastern Europe. Its office was in Geneva and when Aykroyd joined it in 1931, the staff consisted of only twelve people who were concerned almost entirely with infectious diseases. Its Director from the start had been Dr Rachmann, a Polish Jew whose anti-Czarist revolutionary activities before the war had led to him fleeing to England where he was befriended by Edward Mellanby. Rachmann was a man of high intellect and immense energies who maintained all his life extreme left-wing views and a great capacity for making enemies. Aykroyd has left a vignette of this extraordinary man (9) whose vision expanded the concept of International Health work to include nutrition.

When Aykroyd went to Geneva in 1931 the Great Depression hit the world. In his words (9), 'prices of food and other commodities fell to a point at which there was no profit in production, unsold stocks accumulated, and in most industrial countries there were millions of unemployed living at subsistence level and suffering from malnutrition, unable to obtain the food which had been produced. "Hunger in the midst of plenty" was a current phrase. The World Monetary and Economic Conference, convened in 1932 with a fanfare of trumpets, had only one concrete proposal to make; restrict production drastically, create scarcity and wait for prices to rise. This ran counter to the findings of the new science of nutrition which, emerging from the laboratory, demonstrated that good health depends on a good diet. . . From the standpoint of nutrition, the main trouble was not the overproduction of food, but underconsumption.' The Australian representative at the Conference, Stanley Bruce, a former Prime Minister, commented bluntly that if this was the best that the Conference could recommend for a poverty-stricken world, it was a recipe for the growth of fascism and communism.

Aykroyd's main work in Geneva was to write with Étienne Burnet a report on *Nutrition and Public Health*. In preparing this he visited the USA and had discussions with the young Hazel Stiebling and Henry Sebrell, and with E. V. McCollum, the leading US nutritionist at that time. The report summarized for the first time the prospective role that the new science of nutrition could play in public health. It was a background document for a discussion on nutrition in 1935 by the full assembly of the League of Nations which surprisingly lasted three days. Bruce was a leading figure in the debate and was advised by an Australian economist, F. L. McDougall, and by Boyd Orr, then Director of the Rowett Research Institute. He argued that mankind needs food for health and that farmers want to produce food and proposed 'a marriage of health and agriculture'. The Assembly passed a formal resolution that 'the relation of nutrition to the health of the people has become a social and economic problem of widely accepted significance and. . . that this subject has an important bearing on world agricultural problems'. This was a new concept for most members of the Assembly, and a major landmark in the history of nutrition. The Burnet-Aykroyd report had a great influence at this time and helped the Assembly to reach their decisions.

Whilst in Geneva, he wrote *The Three Philosophers* in which the chief character is Lavoisier, whose life and role as the virtual founder of the science of nutrition are described. The book had some success at the time, but is now rare. Anyone who sees a copy in a secondhand bookshop is advised to buy it. Its lively style makes it a book difficult to set down.

Nutrition Research Laboratories, Coonoor, South India (1935-1946)

Aykroyd went to India to succeed Sir Robert McCarrison as Director of the Laboratories. Almost at the same time the Marquess of Linlithgow assumed the office of Viceroy. Linlithgow had been chairman of a royal commission on agriculture in India (1926-8). The report of the commission set out many reforms which needed to be carried out. When working on the commission Linlithgow visited Coonoor and also corresponded with

McCarrison; he and Aykroyd became friends and shared a mutual respect. The arrival of Aykroyd and Linlithgow provided an opportunity to effect a real marriage between health and agriculture in India. An officer was appointed to the department of health in Delhi with the specific purpose of promoting the liaison. In fact, this officer did nothing and the idea died. A reason for this was that the Viceroy's time was diverted from agricultural affairs, for which he had talent, to political affairs, where he was usually at sea, by the failure of the Nationalist Congress Party to work with his government. It is doubtful whether in this way the Congress Party achieved their aim of acquiring the reins of government a day earlier, and it is possible that they prevented the introduction of agricultural reforms which would have greatly benefited the health of the people. India still needs such reforms. Aykroyd's major task in India, at least in the early years, was running the laboratories at Coonoor with only occasional visits to Delhi to advise the government.

The laboratories had acquired an international reputation under McCarrison (Obituary notice, *Br. J. Nutr.* (1960) 14, 413). He was an excellent laboratory worker with a flair for designing animal experiments; he was also a public speaker with panache, and his lectures in India, Europe and America did much to draw attention to the need for nutrition research. He was, however, a 'loner', usually working with one or two devoted assistants, and had no research programme specifically related to public health. Aykroyd started by recruiting staff and collecting equipment for three specific purposes: first, systematic analyses of the nutritive value of Indian foods, secondly, dietary surveys throughout the country and thirdly, the clinical assessment of nutritional status. By 1940 when the outbreak of World War 2 considerably cut down these activities, sufficient information had been collected to give a clear picture of the nutritional problems of India. The publication in 1937 of the first edition of *Health Bulletin* No. 23 (5) was a notable event; it contained tables giving the nutritive value of some 250 foods and a text which set out in simple language how these foods could be used to provide satisfactory diets. It was soon translated into many Indian languages and after many editions is still in use today. During this period the chief scientific work of the laboratories was an inquiry into the rice problem (6). This covered the production and consumption of rice, the nutritive value of different types of rice, beriberi in relation to thiamin requirements, general defects of the poor rice-eaters' diet, economic and social aspects of rice-milling and the improvement of poor rice diets.

During the War Aykroyd was much away from Coonoor on government affairs. Thus he attended in May 1943, as a representative of India, the Hot Springs Conference in Virginia. Delegates from forty-five countries had been invited to the Conference by President Roosevelt with the primary purpose of considering ways and means of reviving agriculture throughout the world with the aim of ensuring that there was enough food for all mankind as soon as possible after the end of hostilities. The Conference agreed on a large number of points which were set out in three sections – on production, consumption and distribution. The report, in the drafting of which Aykroyd played a full part, is a statesmanlike document, and it led subsequently to the setting up of the Food and Agriculture Organization in 1945.

Aykroyd also spent much time on the Inquiry Commission which investigated the causes of the Bengal famine of 1943 and one can detect his hand in the drafting of two final paragraphs.

'Whilst others starved, there was much indifference in the face of suffering. Corruption was widespread throughout the province and in many classes of society.

'It has been a sad task to inquire into the course and the causes of the Bengal famine. We have been haunted by a deep sense of tragedy. A million and a half of the poor of Bengal fell victim to circumstances for which they themselves were not responsible. Society failed to protect its weaker members. Indeed there was a moral and social breakdown as well as an administrative breakdown.'

Obituary Notice: W. R. Aykroyd

After Aykroyd left India in 1946 the Coonoor Laboratories were depleted of staff and at a low ebb; they were emaciated, but the skeletal structure was sound and they grew rapidly under the first Indian Director, Dr V. N. Patwardhan. His successor, Dr C. Gopalan, a pupil of Aykroyd, moved them to Hyderabad in 1966. Now as the National Institute of Nutrition (Director, Dr S. G. Srikantia), it is one of the best equipped scientific institutes in Asia, with about 100 graduate staff. Since McCarrison set up his laboratory in Coonoor in 1918, its story has been one of continuing growth and development with only occasional temporary setbacks, always due to parsimony in Delhi. This success story is probably due to the fact that in all these years it has had only five directors, each a distinguished man with a scientific reputation far beyond India. It is a fact that should please Indians and British alike that the changeover from an 'imperialist' to a 'nationalist' government in Delhi made no difference to the progress of the work. Aykroyd and his successors deserve credit for this.

FAO, Washington and Rome (1946–1960)

Soon after his appointment in 1945 as Director General of FAO, Boyd Orr invited Aykroyd to join the headquarters staff in Washington, as head of the Nutrition Division. Boyd Orr, who was both a doctor and a farmer, did not consider that foods should be marketed and sold purely on their value as a trade commodity. He proposed a World Food Board under the aegis of FAO which could support farmers by buying up crops when world prices fell too much and also support consumers by selling them foods when world prices rose too high. When in 1948 this idea was not accepted, Boyd Orr resigned. Successive Director Generals followed, all men of only modest ability and incapable of getting high ideals put into practice. FAO has never been able to put forward imaginative ideas for agricultural development based on health needs, much less to sell such ideas to its member governments.

Under these circumstances the Nutrition Division under Aykroyd never came to play a big part in the main activity of the parent organization, which often appeared to be the holding of conferences, sometimes with high-sounding titles. He did, however, develop the division into a sound organization for spreading knowledge of both the principles and practice of nutrition. First, the division organized a series of regional meetings in Montevideo and in Baguio in 1948, in Burma and in Rio de Janeiro in 1950, in Fajara, Gambia in 1952 and in Bandung, Indonesia in 1953. At these conferences local nutritionists were able to discuss their problems with visiting international experts. They also led to the selection of suitable persons for awards of postgraduate fellowships for training in countries with more educational facilities than were available in candidates' home countries. Further areas were identified whose help could be provided by a visit from overseas consultants; these visits lasted often for several months. Field projects to improve nutrition and public health were initiated in several countries with WHO and supported by the UN development programme. Aykroyd and his staff took great pains in the selection and placing of fellows and consultants. Inevitably some mistakes were made, but there are few countries now in which there is not at least a small cadre of expert nutritionists who owe their training to FAO.

The division supported a series of small monographs which have been and continue to be of immense value to professional nutritionists. Early titles were *Rice and Rice Diets* (1948), *Dietary Surveys: Their Technique and Interpretation* (1949), *Teaching Better Nutrition* (1950), *Calorie Requirements* (1950), *Kwashiorkor in Africa* (1951), *Maize and Maize Diets* (1953) and *School Feeding* (1953). Two of these merit further comment. *Kwashiorkor in Africa* was prepared by J. F. Brock and M. Autret after a three months' tour in which eleven countries were visited. It established for the first time that kwashiorkor was not a local disease, occurring only in a few areas, but was endemic and a major cause of child mortality in large regions of the African continent. *Calorie Requirements* was prepared by an expert international committee which met in Washington in 1950 and again in Rome in 1957.

It was the forerunner of a series of reports which set out estimated requirements of many nutrients.

WHO was not founded until two years after FAO. Its nutrition section was at first small and none of its staff had the experience or prestige of Aykroyd. He quickly established a close and harmonious collaboration between the two organizations and a series of FAO/WHO Expert Committees have reviewed international nutrition problems at frequent intervals, their reports being valuable guidelines to governments of member countries. International co-operation on technical subjects is often beset by acrimonious disputes. That in the field of nutrition it started off and still continues for the most part harmoniously is due in no small measure to Aykroyd's abilities to see the essence of public health problems and to reconcile advocates of conflicting views behind the scenes.

London School of Hygiene and Tropical Medicine (1960–1967)

In 1960 Aykroyd had reached the retiral age for FAO staff and he moved to London, where he was appointed a Senior Lecturer in the School of Hygiene. His main function was teaching in the postgraduate courses, and in these a large proportion of the students came from overseas. B. S. Platt, who had worked on many FAO committees with Aykroyd and was a personal friend, was Professor of Nutrition at the School, but he was suffering continuously from the effects of hypertension and Aykroyd played a large part in maintaining effective teaching at the School during this period. With Joyce Doughty, a colleague at the School, a monograph on *Legumes in Human Nutrition* (7) was prepared. This is still a well-informed and readable account of these important foods.

In 1965 he visited the Caribbean for six months on behalf of WHO and his report was followed in 1968 by the setting up of the Caribbean Food and Nutrition Institute. His visit also provided the incentive for a book *Sweet Malefactor* (8) with the subtitle, *Sugar, Slavery and Human Society*. Beautifully written and illustrated, it gives an account of the sociological effects of the introduction of a new major food. It is instructive for both professional nutritionists and sociologists and also for anyone with a broad interest in history.

He also helped Oxfam to set up a medical panel to advise on their medical and public programme and became chairman of the Panel. In this way his old interest in famine relief, started in India, was continued.

Retirement (1967–1979)

After retiring from the School of Hygiene, Aykroyd and his wife moved to Oxfordshire. He continued to attend some scientific meetings and did a little consultative work. His literary work went on and he wrote two small monographs for FAO and the Freedom from Hunger Campaign (10, 11). He was most concerned with a book, *The Conquest of Famine* (12), which tells the story of famines from the times of the Pharaohs up to the Ethiopian famines of the 1970s. It was given the Nutrition Foundation's Book Award.

Apart from attacks of diverticulitis with haemorrhage he was in good health until 1971 when he had a coronary infarct. Activities were restricted for the last years of his life by poor health though he managed to attend meetings in London occasionally.

What sort of a man was Wallace Aykroyd? I worked for three years with him as Assistant Director in Coonor and undertook four consultant appointments when he was at FAO. First Wallace was easy to get on with. He knew what he wanted to do and, perhaps as important, he knew the effects of the financial restraints under which he always worked. His plans were practical and not grandiose. He enjoyed discussing ways and means and administrative detail. He was perhaps at his best writing up his work and that of others and he had a sure eye for what was important and for a telling phrase. Numbers of nutritional crackpots

found their way to Coonoor and Rome, two fine holiday centres, and many wrote to him. Wallace stood no nonsense from these tiresome people, but he had the gift of dealing with them lightly. All Wallace's professional interests in nutrition were in its public health aspects. Although well trained and always interested in clinical medicine, he did not contribute to clinical nutrition. Nor, despite his early interest in Lavoisier and his work was he concerned with the underlying physiology of nutrition. After leaving the Lister Institute, he did no further bench work, but most days in Coonoor he put on a white coat and walked round the laboratories and animal houses. He enjoyed talking to the animal house attendants, most of whom lacked formal education but had been well trained by McCarrison and become shrewd observers of sick animals. He had a good eye for knowing when a junior laboratory worker was going off the rails, and when encouragement was needed.

His real flair was for seeing what scientific information could be obtained and how it might be applied in public health programmes. Much of what is now accepted practice in the prevention of nutritional disorders in poor and backward communities has been shaped and refined by Aykroyd and indeed follows on his League of Nations Report (3), probably his most seminal work.

Wallace was an easy man to be with. He was a good travelling companion, adapting himself well to whatever country he was working in, and able to poke fun, without malice, at the natives, whether he was in Macy's in Washington or in the bazaar in Coimbatore. At Coonoor he played centre-forward for the laboratory hockey team in hard-fought battles with the local regiment and a boys' school. He also played golf regularly. Later in Delhi, Washington and Rome he walked about the cities a great deal. After a day's work in FAO it was a pleasure to walk with him from the Baths of Caracalla right across the city to his flat in the Via del Babuino beyond the Spanish Steps and to listen to comments on the behaviour of Romans, ancient and modern.

He was a devoted family man and always regretted that when they were young he could see little of his two daughters and son, especially during the war when his son was at school in England. They and his wife, Freda, can now only look back and recall memories of a good man.

R. PASSMORE

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