Kwashiorkor is a type of malnutrition that is characterised by swelling. It is usually opposed to marasmus, when the body wastes away, leaving a skeletal figure. Kwashiorkor, in contrast, is characterised not by the appearance of ‘skin and bones’, but as oedematous, swollen limbs and stomach. It is often associated in the public mind with African famines, particularly the distended bellies of famine victims in Biafra, but this condition was first described in print in 1908, and given its current name, accompanied by a detailed clinical description, by Cicely Williams in the 1930s.

The story of kwashiorkor is a fascinating one. Cicely Williams was working in the Gold Coast as a Colonial Medical Officer, and she noticed a recurring set of symptoms amongst children who were aged between one and four: oedema in the hands and feet, darkening and thickening of the skin followed by peeling, and a reddish tinge to the hair in the worst cases. There was a clear pattern in the incidence of this disease, since it occurred in children who had been weaned onto low-protein, starchy foods such as maize, after being displaced from the breast by a younger sibling. Williams’ description first appeared in print in 1933, and two years later she identified the condition by its name in the local language: kwashiorkor, the ‘disease of the deposed child’.

It took twenty years for kwashiorkor to gain medical acceptance and become the target of humanitarian programmes. Descriptions of the condition had been trickling in from around the world,
accompanied by a variety of different names, from the colloquial (‘red baby’), to the medical (‘dyschronic oedematous syndrome’), but many commentators denied that these observations constituted anything new, either interpreting them as an existing disease, or as an unrelated collection of symptoms.

The name and diagnosis provided by Cicely Williams was also contested, with the strongest resistance coming from specialists in pellagra: a niacin deficiency disease that led to similar patches of thickened skin, which was also associated with a maize diet. A physician called Hugh Stannus, in particular, issued withering responses to Williams’ diagnosis, accusing her of failing to recognise pellagra, which, he said, should be obvious to anyone with extensive clinical experience. But by the early 1950s, kwashiorkor had become accepted as a coherent entity, a moment marked by a prominent WHO report that declared it ‘the most serious and widespread nutritional disorder known to medical science’, which was accompanied by a detailed scholarly monograph.

Three key features emerge from this process, which tell us something interesting about the history of nutritional science. The first was a profound suspicion of local knowledge. In disputes around the nature of the new disease, resistance emerged towards the name ‘kwashiorkor’; Stannus, for example, quickly objected to the use of a ‘West African native word’, complaining that it would be confusing, and objecting to its association with a ‘common superstition’ in Africa: the belief that ‘each successive child pushes the previous one into its grave’. For Stannus, as for many other commentators, African words had no place in Western medicine, especially when the terminology was associated with irrational beliefs. This ‘juju’ word, which was such bad luck it took years to be uttered in Cicely Williams’s hospital, was treated as a taboo that was in need of destruction, not recognition; something to be shattered with the light of reason, not entered into the canon of Western medicine.

It was to Cicely Williams’ great credit that she appreciated the significance of the ‘native word’, and vigorously defended its use. Through its translation as ‘the disease of the deposed child’, she realised that kwashiorkor was caused by displacement from the breast, so must have something to do with the absence of milk in the diet. Yet although Williams did, to a certain extent, ‘listen to the Ga’, as Jennifer Stanton has put it, she heard only part of the message. Williams did not simply adopt the native word, she transformed it, fitting the condition into a medicalized paradigm and missing its social significance. Kwashiorkor came to designate, narrowly, a protein deficiency, when it had previously been laden with social meaning. Before it became a biochemical pathology, it had designated a social problem, which was later ignored: the risk of being a child, in a series of closely-spaced siblings, in a resource-poor setting.

The value of the term lay in an acute awareness that weaned infants were very vulnerable (a situation that humanitarian agencies are now at pains to emphasise), and an illustration of the ever-presence of death in communities with entrenched poverty.

In stripping the term of these social connotations, Williams and her successors medicalized the condition, reconceiving the condition as a deficiency. In their hands, kwashiorkor was characterised by an absence, not by a presence: a lack of nutrients, not the existence of a network of causes. From designating a social relationship, it became the failure to eat a certain kind of food, which became instantly compatible with another method for undermining indigenous knowledge: the paradigm of ignorance. Once kwashiorkor was reduced to a deficiency, its occurrence could be presented as a failure on the part of mothers: a failure to realise the need for protein, and a failure to provide this to their families. This was a well-worn connection in the annals of nutritionism, but when applied to kwashiorkor, the paradigm of ignorance took on newly racist overtones. It criticised Africans for a failure to breastfeed
according to a rigorous time schedule, a failure to regulate the spacing of their babies, and a failure to buy tinned milk that would adequately nourish their offspring. As Megan Vaughan has argued, biomedicine was central to colonialism, a key plank in the civilizing mission and a central tool for regulating the labour force and separating the races; it was accompanied by profound reluctance to accept that science might have something to learn from imperial subjects.

The second main feature of kwashiorkor’s acceptance was its reliance on intricate physiological detail. In order to get the disease recognised, Cicely Williams had to accumulate a mass of information on its manifestations and causes, and defend these against commentators such as Hugh Stannus. Through autopsies, for example, Williams established the unique anatomical features of the disease, particularly the presence of a fatty liver. Such a drive for detail, Thomas Laqueur has argued, is one of the most important signs of truth in modern humanitarian narratives. Through the emergence of autopsy, ‘unprecedented quantities of minute observations’ became the building blocks of a factual account, in which the suffering of others, and their causes, were made real. For kwashiorkor to be accepted, in other words, detail had to be accumulated, the internal workings of the body had to be revealed, and the exact conditions that led to the emergence of this condition had to be isolated and established.

The accomplishment of autopsies, however, relied on the cooperation of Ga mothers, who viewed kwashiorkor rather differently. In the account given to her biographer, Cicely Williams explained the obstacles she faced in conducting autopsies in the Gold Coast. The mothers of dead children, she explained, whisked their children away from the hospital as soon as they died or were close to death – a practice that was widely understood to be the result of custom, which demanded burial in the child’s compound before sunset. But after talking with the mothers, Williams identified another possible cause. Local bus drivers, it was reported, levied an extra charge for transporting a corpse, which led the mothers of dead or dying children to take the bodies away early. By compensating mothers for the higher bus fare, Williams gained consent for autopsies, offering, in the view of her biographer a solution that was ‘so simple, but one that no other European had thought of [before]’. But it was a solution that raises more questions than answers: Was it true that the main obstacle was money for transportation? Or were mothers just looking for a financial incentive to participate in an unusual practice? Did involvement in a post-mortem constitute the violation of an important custom? Or were the mothers able to adhere to cultural rules and find a way of receiving money from a white doctor?

It is very likely that post-mortems seemed unnecessary to the Ga, who had always located the kwashiorkor in a social relationship, and saw little need for the quest for anatomical detail. In their interpretation, kwashiorkor was explained by the position of the sibling, the circumstances of dearth, and the presence of a curse that had been placed upon the suffering child; in other words, the nature of the condition was to be found outside the body, rather than within it. To the extent that the autopsies led to difficult ethical terrain for Cicely Williams – which, it must be said, there is all evidence she was aware of – there were even greater moral implications in a second source of detail about the disease: the trialling of different diets. Based on the assumption that kwashiorkor was a nutritional deficiency disease, doctors had been experimenting with dietary plans that might help the children recover, with the colonial world treated as a vast nutritional laboratory, in which highly invasive interventions could be applied to sick African children in an attempt to test distant theories. Foods as diverse and unfamiliar as dehydrated liver, desiccated stomach, proteolysed meats, casein hydrolysates, marmite, Bemax, and cod-liver oil were all used in the treatment of kwashiorkor. Physicians applied treatments to test their personal theories, with
those believing the disease was a form of pellagra injecting children with nicotinic acid, and those suspecting it was beriberi administering thiamine. Blood transfusions were common, and in the 1940s the intravenous administration of proteins was also tested – most notably in the Bengal famine. These experiments took place in an environment where the drive for detail was paramount, and ethical guidelines were scarce. They were also to the detriment of the kwashiorkor sufferers, many of who died as a result of such interventions, particularly after vitamin injections.

The third feature of kwashiorkor’s path to medical acceptance lies in this search for a technical solution. As it became widely agreed that protein deficiency was the cause of the disease, a number of protein-rich diets were developed for the suffering child. From dehydrated liver and desiccated stomach, more efficient responses were created, involving proteins that had been isolated from foods and manufactured in bulk, such as casein, the protein found in milk. Later still, scientists isolated new protein sources in plant leaves, or created ‘single-cell proteins’ from petroleum. In 1955, an arm of the United Nations – the Protein Advisory Group – was established to coordinate research and generate policy, responding to a widely perceived ‘protein gap’, which was presumed to exist throughout the developing world. To this problem, technical solutions emerged in their hundreds, ways of plugging the gap, manufacturing protein, shipping milk surpluses from Europe and North America to Africa and Asia. The effect of these policies and cures were largely undertaken with good intentions, but the use of new nutritional creations and strongly interventionist treatments was characteristic of a medicalized approach, which saw an intrinsic value in isolating the exact nature of kwashiorkor and treating it with chemical compounds.

The crucial aspect of these responses, as far as the medicalization of hunger is concerned, is the complexity of their nature, and the irony of their failure. Whilst they were carefully distinguished as rational and scientific responses to a global problem, they were, themselves, embedded in cultural predictions, commercial interests, and faulty logic. In a famous article of 1974, Donald McLaren criticised the undue attention on protein supplements, calling it ‘The Great Protein Fiasco’. The fiasco, he argued, was a misplaced emphasis on kwashiorkor and protein, which had dominated international policy since the 1950s. The far bigger problem, for McLaren and many others who came to support him, was marasmus: wasting caused by a lack of energy, or, to put it another way, a simple lack of food. In the meantime, a great deal of money had been spent on research and protein production, a huge commercial industry had emerged associated with food supplements, and all this had been driven by a Western culture that placed a disproportionate value on meat.

As the ‘protein fiasco’ developed, it turned out that kwashiorkor was not only exaggerated in extent, it was also simplified in causation. From the very beginning, Williams assumed that because milk enabled children to recover, the cause of kwashiorkor was a lack of milk, and therefore, protein. But it was pointed out as early as 1955 that this assumption was a failure in logic: if an aspirin cures a headache, we do not immediately assume that the patient has been suffering from aspirin deficiency. Evidence from the 1960s demonstrated that a less protein-rich, more balanced diet could cure kwashiorkor equally well, and by the 1970s a number of other causes for the disease were suggested – even today, the details of kwashiorkor are still not fully understood. But, to use the words of Guy Baily, it is unclear what this ‘search for the minutiae of reductionist knowledge’ really brings. The cause of kwashiorkor, after all, remains ‘starkly simple’, as it arises from a poor, restricted diet, and is associated with considerable poverty. Baily lamented the pointlessness of much of this kwashiorkor literature, suggesting it involved
‘fiddling while children starve’, and concluding that ‘third-world health might be better served if the budgets of research institutes were distributed as ten dollar bills to the poor and undernourished’.

What remained outside the nutritional paradigm, therefore, was the simple observation that poverty was the cause, and food the solution. Despite the massive investments in technology and science, there was really no need for complex nutritional supplements and high-protein diets derived from fish, leaf, and synthetic proteins. Looking back, the ‘protein fiasco’ was a nail in the coffin of modernizing narratives; it embodied the realisation that most people, given adequate income, are perfectly capable of eating a decent diet without technological interventions. Yet the fiasco also raised enduring questions about the value of seeing hunger in medical terms. When we rely on a view of hunger that focuses so narrowly on physiological processes, we miss the political and social systems that keep people poor and undernourished. As McLaren suggested back in 1974, research into kwashiorkor and protein was a waste of resources; for all its value in knowledge creation for its own sake, this work was meant to benefit the hungry, something it manifestly failed to do.

It is often said of ‘discoveries’ in Africa that they were no such thing: Europeans were simply finding something that Africans had always known about. There is an element of this in the discovery of kwashiorkor. Kwashiorkor was a common experience for Africans in the Gold Coast; it was something they had knowledge about long before the colonials published in scholarly journals. As Hugh Trowell noted when looking back at the story in 1975, ‘the ignorant Africans recognised a disease that we had missed’. Yet to see kwashiorkor as a simple discovery, ignores what was produced in this period. When Williams wrote about kwashiorkor in the Lancet, she was not identifying something pre-existing, but creating something new. She was transforming the word, creating another form of malnourishment, another facet to hunger. She may have adopted the native term, but she did not adopt the native understanding, nor simply publicise what had already been known. In the hands of Cicely Williams and her interlocutors, kwashiorkor was medicalized: extracted from social causes, identified with a nutritional deficiency, and made amenable to a technological response.