

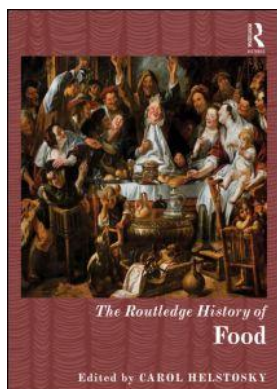
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FOOD, MEDICINE AND INSTITUTIONAL LIFE IN THE BRITISH ISLES, *c.*1790–1900

Ian Miller

This chapter explores two discrete, but inter-related, dimensions of modern food history: the medicalization of diet from the late eighteenth century onward and the development of new strategies of large-scale institutional feeding. From the late eighteenth century, medical scientists began to analyse and comprehend food in new ways. Contemporaneously, state bodies in many western countries began using institutions to tackle problems such as insanity and crime. Food played a powerful role in structuring institutional experiences as this chapter demonstrates by exploring historical case studies in the British Isles. This chapter presents institutions as spaces where medico-scientific knowledge of food was produced, applied, tested and debated, particularly in the nineteenth century. Notably, throughout the period in question, medical communities across the British Isles lamented the inadequate dietary customs of the working-class population whom they routinely depicted as under-fed, under-nourished and unhealthy.¹ However, it was only in the twentieth century when health care professionals proved relatively more successful in regulating what the population ate; an outcome that John Coveney encapsulates with the term ‘nutritional policing’.² Coveney depicts the nineteenth-century emergence of nutritional science as having been characterized by the ever-increasing governance of bodily behaviour through dietary guidance and advice. Other historians – most notably James Vernon – frame food as a more intricate historical artefact; as something that an array of actors including consumers, journalists, scientists and policy-makers debated, regulated and sought to govern.³ Although historiographical debates on the extent to which medical authority successfully intervened in day-to-day dietary activities are ongoing, what is certain is that diet was increasingly subject to expert interventions in the eighteenth and nineteenth centuries. Adding to these debates, this chapter demonstrates that prior to the twentieth century, institutions offered enclosed, strictly regimented spaces where medical authority in diet could expand to an extent not then possible in the general community.

Although physicians had traditionally advocated the consumption of certain foods for medicinal purposes, the conceptual frameworks in which they understood diet, nutrition and food intake altered considerably from the late eighteenth century. Earlier, physicians had assessed food intake primarily with reference to constitutional and humoral imperatives. As Andrew Wear persuasively demonstrates, early modern physicians viewed the consumption of too much food, or unsuitable food, as the origin of many diseases and humoral disorders.⁴ Ideas such as these seemed credible in a period when physicians

typically understood illness as caused by an array of interconnected factors such as the patient's humoral temperament and environmental factors.

Empirical forms of medicine were developed in Paris in the 1790s – subsequently popularized across Western society – that proved more intent on empirically understanding medical conditions and developing cures through the physical observation of organs, tissues and cells rather than theoretical speculation.⁵ From the 1790s onward, food became scientifically known, lending medical communities the authority of experimental proof which they subsequently used to form the basis of a persuasive rationale for expanding their interventions in day-to-day matters relating to eating. In the nineteenth century, they penned an innumerable amount of textbooks that instructed medical and lay readers on how the digestive system worked, how humans should masticate and swallow, how stomachs needed time to digest and even the times of day when excreting seemed healthiest for the body.⁶ In the 1830s, nutritional science emerged in a recognizably modern form. It was in that decade that internationally celebrated German chemist Justus von Liebig deciphered new techniques of breaking foodstuffs down into their chemical constituents (e.g. starch, fat and protein); a step that placed him and his colleagues in an authoritative position to advise on which combinations of foods promoted health.⁷ Combined, these investigations into digestion and nutrition emblemized a new scientific impulse in western medicine, which, in itself, allowed orthodox medical communities to professionalize and distance themselves from older forms of what became derogatively known as 'quack medicine'.⁸

The medicalization of diet occurred in tandem with the implementation of significant structural adjustments to institutional life. As England industrialized, institutions came to serve as suitable spaces where those who failed to socially conform could be deposited and their behavioural and moral shortcomings corrected. Michael Foucault famously described the eighteenth century as 'the great confinement'; as a period when the insane became institutionalized rather than being allowed to continue wandering through towns and the countryside.⁹ In contrast, Roy Porter refutes the basis of this idea by asserting that it was actually in the early nineteenth century that large numbers of mentally ill individuals were incarcerated en masse.¹⁰ In his later work, Foucault also detailed the aforementioned shift in the organization of medical knowledge evident in the late eighteenth century and, soon after, the expansion of the prison system into a new technological power.¹¹

Although historians continue to debate the shifting power relations created by the ever-advancing encroachment of the institution, what is clear is that institutionalization undeniably came to provide an important means of tackling social problems including insanity and criminality. Moreover, medical practitioners took on an increasingly prominent role in managing institutional health, regulating bodily behaviour and making use of the institutionalized to generate dietary knowledge. Diet offers a suitable lens for assessing one way in which physicians began to exert an influence in the institution. Accordingly, this chapter explores the points at which dietary knowledge and the need to feed large numbers of institutionalized individuals converged. Britain and Ireland serve as useful comparative regions due to the profound difference in dietary customs evident in those neighbouring countries despite both being politically overseen as combined parts of the United Kingdom of Great Britain and Ireland following the 1801 Act of Union. They offer intriguing complementary case studies as Britain witnessed high levels of industrialization in comparison to Ireland, a country that did not industrialize to a comparable extent.¹² Prior to the

Famine (c.1845–52), the Irish diet was characterized by high levels of potato consumption. Although the potato was replaced with a more varied diet from the 1850s, much of Ireland's population retained what can be considered as traditional food customs for some decades.¹³ In Britain, rapid industrialization during the eighteenth and nineteenth centuries led to the replacement of traditional consumption patterns with the commercialized production of bread, meat and agricultural produce, as well as imports of luxuries including tea and coffee.¹⁴

Feeding asylum patients

The asylum was a key site in which medical understandings of food and dietary intake were actualized, displayed and modified. As such, analysis of the functions of asylum feeding renders visible one way in which expert knowledge of food was historically used to structure, regulate and give meaning to institutional life. In his seminal text of 1963, *Madness and Civilisation*, Foucault famously argued that insanity was once considered part of everyday life. Prior to the eighteenth century, he maintains, 'madmen' were allowed to roam the streets as they were relatively accepted by society. Shifting public perceptions of insanity resulted in a palpable diminishment of these previously high levels of social acceptance. According to Foucault, insanity became subject to public stigmatization in the early modern period. The insane could now be likened to animals as ideas gained standing that they lacked reason and rationality; faculties which, to many, defined human existence and distinguished human life from the non-human. This intellectual shift, Foucault insists, was mirrored in the practical management of the insane who, due to their perceived irrationality, now found themselves vulnerable to being herded into institutions and subjected to punishments including whipping and chaining.¹⁵ Other historians have noted that restricted feeding formed part of these coercive processes.¹⁶

Prior to the late eighteenth century, insanity tended not to be perceived as a problem requiring medical attention in the way that it tends to be today. Instead, it was treated as akin to a crime; as an offence demanding segregation from society through punitive institutional means. This was often the norm in the period leading up to what Edward Shorter terms 'the birth of psychiatry', a transformative period that commenced in the 1790s when communities of medical men began contemplating the possibility of therapeutically managing, even curing, insanity.¹⁷ The significance of this conceptual shift cannot be understated for it paved the way for the emergence of a new medical figure – the psychiatrist – as well as the introduction of a new type of curative institution – the therapeutic asylum. From the late eighteenth century onwards, asylum physicians re-envisioned the insane as deserving of medical care instead of punishment.

What became known as 'moral management' gradually displaced disciplinary regimes of institutional management. In Britain, the ideology of moral management was embodied in the York Retreat, a Quaker-managed institution established by philanthropist Samuel Tuke in 1796. Although not strictly designed as a medical establishment, the Retreat purported an ethos that emphasized the importance of rest and manual work as opposed to restraint and punishment.¹⁸ Soon after, in Ireland, William Saunders Hallaran began to promote humane management of the insane at Cork Lunatic Asylum.¹⁹ In 1817, Ireland became the first country in the western world to host an extensive public asylum system.²⁰ In 1845, a broadly similar state-supported asylum system was established nationwide in Britain, underpinned, in theory, by corresponding principles of moral management.

Andrew Scull evocatively depicts that system as a ‘dumping ground’ for members of society who were not economically productive (although his ideas have since been subject to intense contestation).²¹ Of particular relevance to this chapter, Scull also maintains that this state-funded system offered crucial opportunities for the medical profession to expand and cement its influence in the realm of insanity; a condition recast by its members throughout the century as mental *illness*.²²

These developments occurred in tandem with the gradual transformation of diet into an object of medico-scientific inquiry. Dietary arrangements were central not only to the experience of nineteenth-century asylum life but also to the therapeutic regimes on offer and the institutional production of ideas about mental illness. From the late eighteenth century, asylums were gradually re-orientated as sites of therapy. Dietary provision proved increasingly central to the day-to-day care of patients. This was because many psychiatrists conceptualized mental illness as a condition with physical, rather than mental, origins. Accordingly, cases of insanity tended to be treated by bodily, as opposed to psychological, means. The growing sway of these physically-orientated interpretations encouraged asylum physicians to allocate substantial portions of food to their patients. In the therapeutic asylum, diet was inscribed with curative properties, if used appropriately. In this context, food could be framed as a mechanism that might restore the personality and social usefulness of insane individuals as, according to mainstream psychiatric thought, a healthy body meant a healthy mind.

Perspectives such as these were partly informed by contemporary perspectives on digestion and the stomach. Nineteenth-century medical thought prioritized the stomach as an organ replete with nerves. Key figures including Edinburgh physician and neurologist Robert Whytt (1714–66) argued that different parts of the body interacted with one another via the nervous system. Whytt applied the concept of ‘nervous sympathy’ to explain why pain or discomfort in one organ could be felt in areas of the body far away from the initial seat of disease, including the mind.²³ In his popular model, Whytt construed dyspepsia (or indigestion) as a potential causative factor of psychiatric problems as he understood the human body as a complex web of nervous interactions. In 1861, the *Blackwood’s Edinburgh Review* suggested not only that the English were particularly susceptible to gastric illness, but also that ‘nothing but family considerations prevented him [the Englishman] from blowing out his brains with a pistol, or effectually ridding himself of his woes by plunging into the muddy torrent of the Thames’.²⁴ In Ireland, asylum physicians blamed rising asylum admissions in the 1880s and 1890s on customs of excessive tea drinking among working-class and impoverished women who, upon seemingly becoming addicted to the substance, had then developed chronic dyspepsia that later manifested itself in epilepsy, mania and other psychiatric complaints. Physicians regularly denounced tea, as consumed in working-class communities, as an addictive nervous stimulant as opposed to a nutritious product.²⁵ Notably, these concerns were raised in an official inquiry into rising levels of Irish insanity published in 1894 and undertaken by the Irish Inspectors of Lunatic Asylums. The Inspectors blamed dramatically rising asylum admissions throughout the country primarily on the widespread custom among the poor of subsisting on diets consisting mainly of tea and white bread.²⁶

These compelling examples illustrate some of the ways in which nineteenth-century contemporaries perceived the connections between dietary intake and mental disorder on an individual and national level and also how psychiatric complaints were typically portrayed as rooted in physical malfunction. Faith in this interconnectedness between mind

and body was visibly apparent in an 1864 *Medical Times and Gazette* editorial which announced that:

The insane are really the subjects of disease, whose most general character is depression of vital energy, weakness or imperfect nutrition. Hence it is that the inmates of an asylum must be supplied with food not only nutritious in quality, but abundant in quantity. Not only must there be found thereat all that is needful for the maintenance of life and health of the healthy, but for the restoration of force in the debilitated.²⁷

This powerful statement clearly demonstrates that diet was simultaneously considered as the cause and cure of many expressions of mental disorder. If insanity could manifest in consequence of physical debility and under-nutrition, then the next logical step was to create therapeutic mechanisms that would, through food intake, strengthen the body and, in turn, the mind.

This conceptual emphasis on the physicality of mental illness was reflected in nineteenth-century regimes of psychiatric therapy. Above all other contemporary psychiatrists, it was John Connolly who sought most strenuously to establish diet as a vital component of therapeutic care. Connolly was a prominent psychiatrist who co-founded and co-edited the widely-read *British and Foreign Medical Review* between 1836 and 1839. Through this publication, he sought to promote what he considered to be the most modern therapeutic methods. In 1839, he was appointed as resident physician to the Middlesex County Asylum at Hanwell where, in the face of considerable opposition, he introduced principles of non-restraint. This step was the first attempt at banishing mechanical restraint in a large British metropolitan asylum. Ultimately, the example set at Hanwell helped to establish non-restraint as standard practice across Britain.²⁸ Diet was central to Connolly's humane vision of institutional psychiatric care. He promoted healthy food provision as a pivotal element of asylum life; as something that ought to be carefully considered by managers, officers and attendants. Importantly, Connolly asserted his views in the 1840s; a decade when psychiatrists strove to infuse the nationwide, state-funded asylum system then under construction with the principles of moral treatment. 'The mere nutrition of the helpless who cannot express their wants, or represent the most flagrant injustice and privation', wrote Connolly in 1847, 'demands all the care that humanity can suggest'.²⁹

Connolly intended the state-supported asylum system to provide a positive environment in which eating was to be enjoyed by patients. His vision was in line with medico-psychiatric rationales which stipulated that pleasurable eating experiences had a satisfying effect on the mind. On this matter, Connolly wrote:

Where the object is the restoration of mental tranquillity, attention to the diet, and its preparation and serving, rank among remedial measures, acting on the mind as well as the body. All habitual physical discomfort is opposed to mental recovery, and a scanty, ill-cooked, unwholesome diet, creates a chronic uneasiness and dissatisfaction, impairs the health, and increases the mortality of an asylum.³⁰

Like many of his contemporaries, Connolly conceived insanity as a disease of physical debility that, in many instances, had been caused by years of half-starvation prior to asylum admission. In his view, food was swallowed without pleasure in many working-class homes;

a scenario that caused indigestion, disordered conditions of the bowels and subsequent chronic physical and mental ills.³¹ Connolly did not understand diet as an exclusive cure for psychiatric problems but he did uphold it as an integral element of a broader therapeutic environment also characterized by improved lodging, better clothing, ventilated wards, systematic medical attention and the abolition of fetters and restraints.³² Accordingly, at Hanwell, he provided patients with breakfasts of porridge and 6 oz. of bread (5 oz. for women) and dinners consisting of steamed cooked meat, yeast dumpling, vegetables, soup and bread, Irish stew, and meat and potato pie. Men were allocated an additional supper consisting of cheese and bread. All of this, Connolly insisted, could be supplied at a modest cost of eight pence a day per patient. In addition, he paid close attention to the quality of food – particularly meat. Dinner tables were laid out with tablecloths, mealtime overcrowding was disallowed and food was evenly distributed. Prayers were said, and knives and forks were given to all patients except the suicidal. This idyllic dietetic existence was also thought to help prevent disease. Connolly stressed that patients could be cured more rapidly when fed on a nutritious, rather than a starvation, diet and also asserted that the replacement of what he termed ‘water gruel slop’ with nutritious food would stem outbreaks of dysentery and diarrhoea.³³ Although firmly anchored in a move towards the humane treatment of the insane, Connolly’s vision also emblemized an important shift towards understanding insanity as an object of medical concern that could be cured, or at least ameliorated, by the techniques of an empirically-driven medical science.

Many asylum physicians also believed that providing food in these ways bore significant psychological benefits. It was not simply the case that asylum patients were fed more generously than paupers and prisoners, but also that they were more likely to be given food-stuffs that they had been accustomed to in their everyday life prior to admission; an outcome that contrasted sharply with other institutions. In post-Famine Ireland, the Inspector-Generals of Asylums recommended feeding patients with bulky supplies of porridge, bread, milk and potatoes as they appreciated that the country’s predominantly rural population was accustomed to, and therefore more content with, a diet consisting of large quantities of home-grown agricultural produce. Unlike in England, cocoa tended not to be supplied as, in the view of Inspector-General E. Maziere Courtenay, it was ‘utterly unknown in the Irish cottage, and though undoubtedly more nutritious, is disliked from the first’.³⁴ Tellingly, earlier that century, prominent English physician Charles Turner Thackrah, in his *Lectures on Digestion and Diet* (1824), had recalled that when Hallaran had attempted to introduce meat at Cork Lunatic Asylum, the strictest precautions were ‘invariably adopted to provide against the scene of uproar which is sure to follow’. ‘The maniacal excitement’, Thackrah speculated, ‘may be attributed to the sudden transition from a poor to a richer diet, than to the simple effect of animal food’.³⁵

In contrast, meat was more likely to be supplied in English asylums, according to one 1864 *Medical Times and Gazette* editorial, ‘not only because it contains a large amount of nitrogenous and fatty matter in a small bulk, but because custom has associated one meal of animal food with the diet of the majority of the English people. And in an asylum for the insane such habits must be regarded’.³⁶ Managers regularly allocated cheese, eggs, vegetables and bread in England, as well as beer. Beer was understood as a drink that patients, particularly those from working-class backgrounds, were accustomed to consuming on a daily basis. It was only in the 1880s that beer was disallowed in many asylum dietaries, in a period when the temperance movement had made successful inroads in publicly castigating alcohol and when physicians were more actively criticizing alcohol for

its adverse physical and psychological effects and its socially disruptive consequences. In that decade, many medical superintendents of large asylums began viewing the discontinuance of beer supplies as a moral and financial advantage. Beer, they now pronounced, had little nutritional value. Nor did it form part of the daily diet of the poor to the same extent that it had once done. According to one 1883 *Journal of Mental Science* editorial, it was 'a luxury that can be done without' and 'the rock on which so many have been wrecked prior to their admission into the asylum'. In its place, patients were awarded more nutritious liquid substances such as milk, arrowroot and beef-tea.³⁷ In 1881, Dr Davies of the Barming Heath Lunatic Asylum, Kent, experimented with decreasing the amounts of beer given to patients and soon noticed a significant reduction in suicide attempts. Beer, Davies concluded, prolonged patients' maladies and encouraged speedy relapses.³⁸ His stance quickly acquired considerable influence.

However, despite a visible expert faith in food's curative value, psychiatric ideals were often restrained by the financial concerns of institutions. This was particularly evident in Ireland. There, the need to satisfy rate-payers regularly overruled health considerations, especially if asylum doctors felt pressured by their superiors to undertake their work frugally. In 1857, for instance, Joseph Lalor, manager and resident physician at Kilkenny District Asylum, informed the Commissioners of Inquiry into Irish Lunatic Asylums that if dietary scales were raised too high, then a disinclination to admit patients would result due to the additional expenses incurred. When asked whether or not food purchasing was best considered in relation to cure rather than expense, Lalor maintained he felt obliged to purchase the least expensive curative food items regardless of his medical inclinations.³⁹ Clearly, Lalor held an ambiguous position as both manager and physician, and had to carefully choose between his medical impulses and bureaucratic needs. Similarly, in 1857 John Jacob, visiting physician at Maryborough District Asylum, Co. Cork, recalled that his efforts to provide extra rations during outbreaks of scrofula and consumption had been firmly resisted. When Jacob had recommended the replacement of sweet milk with buttermilk to the Board of Governors, Hugh Morgan Tuite, MP for Westmeath, had travelled from his residence at Mullingar, Co. Westmeath, to angrily complain about this substitution and to inform Jacob that the patients already looked over-fed. Jacob also regretted that the Board of Governors persistently obstructed his intentions to supply extra food to those patients with the poorest health.⁴⁰ When asked if it was not his duty to place patients on extra rations without reference to the views of particular Governors, Jacob replied that 'I am afraid I have not sufficient moral courage to do that. I would not feel exactly justified in taking a course that might bear the character of extravagance'.⁴¹

In the 1850s, Jacob made frequent efforts at Maryborough to direct the attention of the Governors to dietary questions by arguing that a liberal food supply was necessary to effect cure, one preferably comparable to the higher standards provided in England. Jacob asserted that 'the practice of economy appears to be too much expected in food and fuel' and that 'the physician is under the daily necessity of ordering generous food to repair impaired constitutions when the deterioration has taken place'. He hoped that the Board would adopt an improved standard of diet with the best results 'to those unhappy classes for whose relief, comfort and general welfare the institution was established'.⁴² Jacob's views implied that the lunatic sick held a higher degree of social rights in the institution, yet these were not being fulfilled due to the ascendancy of frugal policies. His statements also contained suggestions that the mentally ill had a social right to a superior food supply than that offered to paupers and prisoners as asylum incarceration was no longer meant to

be tantamount to punishment. Unsurprisingly, he was critical of the practice at Maryborough of ‘tossing out their food before the inmates, as if they were cattle or pigs’.⁴³

Even despite these practical limitations, the sometimes elusive principle of feeding all patients heartily proved less sustainable as psychiatric diagnoses became more nuanced and as asylum workers came to recognize that distinct patient groups had different dietary needs. Importantly, asylums served as sites where scientific knowledge on diet and appetite could be produced. In the early nineteenth century, patients at large asylums including Bethlem, London, had been awarded the same diet, with the exception of those deemed physically sick.⁴⁴ Later in that century, asylum-based psychiatrists frequently encountered unusual dietary behaviour among their patients and came to recognize, but not always fully comprehend, the existence of an intricate relationship between appetite and mental disorder. For instance, in 1886, prominent Scottish asylum medical superintendent John A. Campbell delivered a lecture to the Medico-Psychological Association entitled ‘On the Appetite in Insanity’ in which he recounted his personal observations of eating habits among inmates. Campbell explained that he had been forced to place syphilitics on a restricted diet of mince meat, potatoes, broth and milk as they ate voraciously. Epileptics, he lamented, tended to have hearty appetites. One epileptic patient, Campbell divulged, had succumbed to a succession of fits due to having over-indulged in plum pudding on Christmas Day. Since then, he had been careful to place the epileptics under his care on a more restrained Christmas diet. In contrast, Campbell observed that the appetite of melancholics tended to be relatively lacking, meaning that they needed encouragement to eat. Some extreme sufferers of mania, he revealed, believed that they had no stomach and did not therefore require food. Others thought that God had directed them to fast for forty days. Curiously, Campbell identified chronic masturbators as having a mixed appetite that veered continuously from voracious to emaciated. To address that problem, he routinely placed them on a farinaceous or milk diet. Above all, Campbell lamented his constant observations of patients consuming their own bodily fluids, hair, string and other foreign objects.⁴⁵

Evidently, insanity was a social problem that was successfully reconfigured as a medical concern during the eighteenth and nineteenth centuries. In response, asylums, in theory, were transformed from punitive, coercive sites into places of therapeutic intervention. In that period, psychiatrists, for the most part, reflected on mental illness as a condition with physical roots. Accordingly, they chose to highlight the potentially curative dimensions of food. This shift ran parallel with the medical capturing of food, digestion and nutritional intake as objects of empirical inquiry. The therapeutic asylum therefore provided a space in which ideas on the relationship between mind and body could be formulated, tested and refined through the lens of dietary intake. Importantly, asylums were unique in that they were spaces whose ethos was informed, for the most part, by a medical ethos that allowed for scientific observation and management. In contrast, as I will demonstrate, while the prison served as a further arena where dietary knowledge was formulated, the authority of medical figures to manage dietary arrangements there was ultimately restricted by a range of factors.

Feeding prisoners

Adjustments were made to the structure of prison life in parallel with the transformation of asylums into therapeutically orientated sites. Foucault identified this outcome as a further manifestation of the rise of an increasingly disciplinary society that resulted in prisons being

redesigned to enable increased prisoner observation and behavioural normalization.⁴⁶ Adopting Foucauldian methodologies, Michael Ignatieff maintains that, in Britain, imprisonment was less frequently used as a punishment for crime before 1775. However, shifting sensitivities to the infliction of bodily pain encouraged alternative responses to criminality to be devised. These were typically less intent on imposing physical harm (through whipping and other punitive actions) and more concerned with reforming mental and moral life.⁴⁷ To a large extent, this development mirrored changes made in the management of the insane in the sense that it promoted ostensibly more humane and personally reformatory techniques, rather than predominantly punitive ones. Martin Weiner considerably expands upon these lines of inquiry by highlighting how early nineteenth-century responses to criminality, contrasting with those of earlier centuries, sought to correct perceived defaults in moral behaviour as crime was now popularly understood as stemming from moral and personality defects.⁴⁸ Importantly, Weiner also identifies a contemporaneous desire to standardize prison life to ensure that prisoners were awarded the same levels of punishment for particular criminal acts. This rationalized system was intended to replace a pre-existing prison network that had allowed for significant variation in punishments, even for the same crime, as its management had been left to the discretion of individual managers.⁴⁹ It is also worth noting that prisons mainly catered to different class groupings than asylums. Asylum patients tended to be more diverse economically, whereas prisoners were more likely to be drawn from the lower classes.⁵⁰ The middle-class contemporaries who judged how much food prisoners deserved viewed the issue through a different class lens than those commenting on asylum feeding.

Although crime could be viewed as an outcome of psychological deficiencies which, in some instances, had stemmed from physical or nutritional weakening, criminality was never captured as a medical problem to the same extent that insanity was transformed into a psychiatric, rather than predominantly social, concern.⁵¹ Nonetheless, throughout the nineteenth century, prisoners were subject to ever-increasing levels of medical interventions, particularly in the realm of feeding.⁵² Diet was then seen as a particularly important element of prison life. This encouraged prison managers to uphold the provision of sparse, unappealing meals as a morally corrective technique. Recurrent efforts were made to standardize prison food allowances in both Britain and Ireland.⁵³ However, the question of how to sustain prisoner health while still serving meals of a punitive nature provoked intense public and expert debate. One telling example of the commentary invoked by this dilemma can be found in British surgeon J.G. Malcolmson's comments, published in *The Lancet* in 1837, in which he asserted that the replacement of punishments such as flogging with overly severe dietary restrictions was 'incomparably more cruel and destructive'.⁵⁴ Malcolmson was particularly concerned with the permanent physical and psychological debility which he saw as likely to stem from sustained periods of feeding on diets with low nutritional value. He viewed enforced prolonged physical deterioration as infinitely worse than physical regimes of bodily punishment and, even, the death sentence.⁵⁵

An urge to lower prison dietaries was routinely expressed throughout the early nineteenth century. For example, in 1821, prominent English writer and Anglican cleric Sydney Smith recognized that the treatment of prisoners had greatly improved since the eighteenth century, but regretted that the subject of diet was still greatly neglected in prisons.⁵⁶ However, Smith called for greater restriction in dietary allowances, arguing that:

Misdemeanants, who have money in their pocket, may be seen in many of our prisons with fish, buttered veal, rump steaks and every kind of luxury; and as the

practice prevails of allowing them to purchase a pint of ale each, in the name of his poorer brethren, and drinks them himself. A jail should be a place of punishment, from which men recoil with horror – a place of real suffering, painful to the memory, terrible to the imagination: But if men can live idly, and live luxuriously, is it any wonder that they set the law at defiance?⁵⁷

Smith added that ‘restriction to diet in prisons is still more necessary, when it is remembered, that it is impossible to avoid making a prison, in some respects, more eligible than the home of a culprit’.⁵⁸ Nonetheless, the practice of simply cutting food portions, where it did manifest, could impact detrimentally on health. This problem attracted considerable public attention in 1823 following a series of controversial deaths at the Millbank Penitentiary, London. The Millbank mortalities ultimately forced the Home Office to appoint a Select Committee to inquire into conditions at the institution. The Committee established that in spring 1822, Millbank’s medical officer, Dr Hutchison, had decided that the diets allocated were more than ample to sustain prisoner health. Accordingly, he had recommended reductions in provisions. Previously, the daily dietary allowances for male prisoners had consisted of one and a half pounds of bread, two pints of hot gruel or porridge and either beef with broth and boiled potatoes or soup with rice, potatoes and vegetables. In contrast, the replacement daily dietary for men consisted of only one and a half pounds of bread and two pints of soup, with a bread and water diet temporarily allocated to those being punished for disruptive behaviour.⁵⁹ When an outbreak of scurvy occurred in January 1823, Scottish physician and founder of the Royal Army Medical Corps, Sir James McGrigor, inspected and observed that many of the prisoners, particularly female ones, were chronically unhealthy. McGrigor denied that the poor health that he had witnessed was in any way connected to the recently introduced dietary reductions.⁶⁰ However, Dr Roget and Dr P. Mere Latham, who performed a subsequent investigation, vociferously refuted McGrigor’s suggestions. Latham later recorded his findings in his *An Account of the Diseases lately Prevalent at the General Penitentiary* (1825) in which he re-asserted his views on the dietetic origins of prison outbreaks of diarrhoea, dysentery and scurvy and stressed the need to feed long-term prisoners with meat to safeguard their health.⁶¹

Intriguingly, Roget and Latham’s report commented that:

With regard to the diet of prisoners undergoing punishment for crimes, we presume the object to be that they should have enough for nourishment and health, and nothing more. How much, and what quality of food will actually suffice for this purpose, can be deduced only from numerous and careful experiments. But no such experiments, as far as we know, have ever been made.⁶²

In forwarding this claim, Roget and Latham sought to make a persuasive case for institutional dietary arrangements to be re-arranged around an empirically-driven physiological rationale that retained punitive elements but which would not risk creating permanent constitutional damage. This aim was not easily achievable in the 1820s when medico-scientific understandings of digestion and nutrition were still very much in a formative stage. Nonetheless, much changed in the decades that followed. In the 1820s, Canadian surgeon William Beaumont elucidated, for the first time, some of the workings of the digestive system after performing experiments on wounded soldier Alexis St. Martin.⁶³ Pathological anatomy professionalized across western society, paving the way for scientific investigations

to be made into the stomachs and digestive processes of corpses.⁶⁴ From the 1830s, Liebig successfully promoted his principles of nutrition, a step that popularized new means of understanding food intake in terms of nutritional consistency and the effects of different foodstuffs in the human system.⁶⁵ Evidently, by the mid-nineteenth century, food and diet were appreciated in more empirically comprehensive terms than when Roget and Latham had voiced their concerns.

These nascent food sciences increasingly helped to divide public and expert opinion on prison diets. As Kenneth Carpenter details, mid-nineteenth century humanitarian impulses viewed as inhumane the weakening of prisoner bodies, given that this condition would not allow them to regain work upon release. In contrast, influential prison administrators maintained a steady determination to ensure that crime should not pay. Accordingly, they insisted that unfavourable diets ought to be provided to deter individuals from criminal life.⁶⁶ Attitudes to prisoner diets could certainly be unsympathetic. For instance, in 1840, English writer and Anglican cleric Sydney Smith asserted that ‘there is nobody so gluttonous and sensual as a thief and he will much more bitterly feel fetters on his mouth than his heels’.⁶⁷ Similarly, the *Law Magazine* indifferently reported in 1841 that:

Prisoners in solitary confinement for a fortnight, on a pound and a half of bread a day, with a surgeon continually putting them on extra diet, are not the same men afterwards that they were before. We dare say they look thinner, but it is contrary to all medical experience to assert that their constitutions could be permanently affected by such a regimen for so short a period. Besides, the surgeon is there to mark the exceptional cases, and is evidently not wanting in humanity.⁶⁸

However, as Carpenter also observes, these severe regimes ultimately led to a palpable failure to keep prisoners healthy. This was particularly the case as long-term sentences became more common.⁶⁹ This problematic scenario helped to transform the issue of prison diet into one with medical dimensions as it opened up avenues for dietetic and nutritional scientists to carve out a further avenue of influence in institutional life. In 1843, prison dietaries across England and Wales were considerably lowered. This is perhaps unsurprising given the existence of a somewhat indifferent approach to feeding prisoners. Although the inspectors who initiated this change exhibited an ostensible interest in maintaining health, their priorities undeniably involved avoiding dietary extravagance and ensuring standardization in punishment. In 1843, they produced a report on prison discipline that prioritized prison feeding as a key concern. This contained a series of tables detailing the minimum amounts of food that they believed could be given to patients according to their length of imprisonment, the types of punishments that they were being subjected to (such as hard labour) and their sex. The tables were intended to be adopted in both countries to ensure greater standardization in prison life. In their report, the inspectors asserted that the:

Quantity of food should be given in all cases which is sufficient, and not more than sufficient, to maintain health and strength at the least possible cost; and that, whilst due care should be exercised to prevent extravagance or luxury in a prison, the diet ought not to be made an instrument of punishment.⁷⁰

Notably, the inspectors, in this instance, relied upon the experience of the prison medical officers whom they encountered as their principal guide and, based on the advice given,

stressed the importance of providing three healthy and varied meals per day.⁷¹ Their dietary scales were gradated, meaning that prisoners confined for less than a fortnight were to be fed with gruel (made of oatmeal) and bread; those imprisoned for between two and six weeks with gruel, bread, meat and potatoes; and those employed at hard labour for over three months with a fuller combination of gruel, bread, meat, potatoes, cocoa and soup.⁷² A key purpose of this standardization was to ensure that individuals knew what punitive treatment to expect should they commit a crime and find themselves subsequently imprisoned. There was one dissenting voice among the inspectors: the radical Unitarian Frederic Hill, known more generally for his view that the ability and judgement of prison managers should outweigh the imposition of prison rules.⁷³ In this instance, Hill objected to the burden of adhering to dietary scales as he believed that there was still a distinct lack of empirical information on the subject of diet, the quantities of nutriment contained in food, and the amount of food required for health under various circumstances.⁷⁴

Instead of resolving the thorny question of what to feed prisoners, as Hill had shrewdly predicted, the standardization of prison diets in fact heightened concern over the bodily welfare of prisoners across the British Isles. In 1846, Scottish physician, toxicologist and President of the Royal College of Physicians of Edinburgh, Robert Christison, investigated a series of outbreaks of scurvy in Perth Prison, Scotland. Drawing from Liebig's recently published investigations into the importance of protein, he determined that providing potatoes in prisons stemmed outbreaks of scurvy. Notably, scurvy had broken out in the prison in the same year that the potato blight decreased potato supplies across the British Isles.⁷⁵ In the following decade, numerous critics – increasingly cognisant of the connection between nutritional insufficiency and the onset of particular diseases – entered into the debate. English historian and traveller Hepworth Dixon, in his popular *The London Prisons* of 1850, angrily declared: 'one might as reasonably lower the diet of the poor and heap up filth in their dwellings by way of security against disease'.⁷⁶

Prison dietary reductions also prompted intense debate in Ireland. Until 1849, the officially recommended diet in Irish prisons had consisted of a breakfast of 8 oz. of meal made into stirabout with a pint of milk, followed by a pound of bread and a pint of new milk for dinner.⁷⁷ The Famine sparked a sudden rethinking of this arrangement once the Inspectors-General of Prisons in Ireland became convinced that paupers were purposefully committing crimes to secure prison food.⁷⁸ In response, they sanctioned a lower dietary scale in 1849 that reduced the amount of food allocated to male prisoners to 6 oz. of stirabout, 1.5 pints of milk and 14 oz. of bread per day.⁷⁹ Throughout the following decade, critics in Ireland openly questioned the social value and moral logic of this drastic reduction which, in their view, only returned physically incapacitated prisoners to society. These included barrister Edward Gibson who, in 1863, warned that reducing food provision below the bodily limits of good health was uneconomical as prisoners would only end up hospitalized and, in consequence, further dependent on public expenditure.⁸⁰ Charles Bernard Gibson, chaplain in the convict system, also vociferously objected to scanty prison feeding arrangements in his *Life among Convicts* (1863). Gibson's primary concern rested with the permanent undermining of prisoner constitutions. Like Edward Gibson, he warned that restricted feeding produced only degraded and demoralized individuals destined to continue acting as social burdens needing care in workhouses and hospitals. 'To make prison dietary penal', he argued, 'is a great mistake, and bad economy'.⁸¹

In the decades that followed, these underfed prisoners became ever more central to the activities of medical scientists interested in advancing their knowledge of food. Prisoners,

after all, offered confined, controlled, almost laboratory-like institutionalized population groups whose dietary intake could be carefully regulated and health subsequently monitored for investigative purposes. For a brief period in the late 1850s and early 1860s, prisoners became remarkably important to British experiments into food, digestion and nutrition. The ongoing question of what to feed prisoners in a way that supported health was now being addressed with reference to the techniques of medical investigation. Whereas the official investigations of 1843 had drawn directly from the practical experiences and accumulated observations of prison medical officers, medico-scientific experts (who were often not directly employed in prisons) now sought to claim authority over the pervasive questions that surrounded prison feeding by asserting the value of empirically calculating the minimum amounts of food that could be provided without compromising prisoner health. In doing so, they not only strove to carve out a new area of social intervention but also to demonstrate the practical value of ever more sophisticated expressions of nutritional and dietetic science.

Prominent British physician and medical writer Edward Smith spearheaded this drive and ultimately acquired an impressive reputation for his prison-based research into human nutrition.⁸² In 1862, Smith reported the results of his investigations made at Coldbath Fields (London) and Wakefield Gaol to the British Association for the Advancement of Science, an organization that had appointed him as the head of a committee to inquire into the effect of prison diet and discipline on the health of prisoners. His key task was ‘the elimination of important physiological facts, for which the discipline enforced in gaols offer good opportunities’.⁸³ His inquiries coincided with a peak in the drive to standardize prison experiences. Smith observed that although the gradations in prison diets made in 1843 had been structured according to length of imprisonment and types of labour undertaken, there had been no ‘attempt to estimate in a scientific manner the amount of increase of nutriment which is proportioned to the increased labour’ and, in relation to measurement of prisoner weight, that ‘in none [prisons] is it effected with such rigorous exactitude as to fit the results for the use of the physiologist’.⁸⁴ Smith’s rallying call for prison diets to be arranged with scientific precision was made possible in this period as physiologists began to undertake laboratory investigations and find ways to publicly demonstrate the practical value of their experimental work.⁸⁵ These decisive changes in investigative practice brought with them new ways of understanding food intake, nutrition and digestion in a manner that exalted experimental proof over individual clinical experience.⁸⁶ Smith’s particular approach was informed by consideration of energy (rather than vitamins which were discovered in the following century) as, following Liebig’s lead, he believed that the energy required for muscular contraction was obtained from the breakdown of protein and that the extent of this breakdown could be measured by the resulting excretion of urea.⁸⁷ Accordingly, he sought to understand the effect of prison discipline over the bodily functions of prisoners by measuring their weight, excretion of nitrogen and carbon, quantity of air inspired, and pulsation and respiration rates.⁸⁸ Smith concluded that prisoners on treadmill labour typically lost over seven pounds in the first four weeks. This led him to conclude that extra food needed to be allocated in those instances.⁸⁹ He also placed different groups of prisoners on diets rich in milk, tea, alcohol, fat or gruel to determine the impact of those substances on prison weight gain and loss.⁹⁰ Overall, Smith concluded that strict regimes of physical punishment that created high levels of exertion were wasteful, both in terms of their effect on the vital powers of prisoners and the additional expenditure incurred in having to feed prisoners. Conversely, he also viewed the

placing of prisoners on bread and water diets as dangerous as it increased tendencies towards ill health.⁹¹

Similar efforts were also made to reorganize Irish prison diets along scientific lines in the 1860s. The issue gained prominence in Ireland because, as detailed above, dietary allowances for prisoners had been considerably cut during the Famine. Despite a relatively rapid uptake of foodstuffs other than the potato throughout Ireland in the immediate pre-Famine years, corresponding adjustments were not made to prison dietary arrangements. This concern captured the attention of English surgeon and naturalist Edwin Lankester who asserted in the *British Medical Journal* in 1867 that Irish prison dietary tables needed to be rewritten with specific reference to contemporary nutritional science. Citing the nitrogenous contents of vegetables and meats, the digestibility of various substances, the manner by which the stomach disposes of vegetables, the role of heat in the body, the physiological function of salt, and so on, he called for a restructuring of the principles underlying prison feeding; advocating the importance of health above discipline. Dismissing published dietary tables on the basis that descriptions of gruels, Irish stews and stirabouts gave little indication of their actual content, he personally visited gaols in Co. Fermanagh and Co. Cork. In the former, where he discovered that food provisions amounted to two-and-a-half pence per day, Lankester observed a deficiency in flesh-forming constituents including meat, a foodstuff which he thought encouraged appetite and encouraged stomachs to healthily digest. He continued by castigating the Cork County Prison dietary as ‘an eminently starvation dietary’ that rendered prisoners vulnerable to physical and mental illness. Lankester concluded that ‘it is forgotten that an underfed body is often the worst possible machine to operate upon morally and that one of the first conditions of a sound mind is a sound body’.⁹²

Both Lankester and Smith sought to demonstrate that the investigative work being undertaken by physiologists had high social value. For instance, Smith made use of the opportunity afforded by his experiments to urge the Committee to make:

Better use than heretofore of the unparalleled opportunities which prisons afford of working out the most important and difficult questions in nutrition, with a view to supplying information for the more just and economical management of gaols, and for the advance of a science which is so essentially connected with the daily life of the community. Such questions are, the true value of white bread over brown bread in prison and other dietary; the exact influence of various kind of food, and especially of such as tea, coffee, milk and alcohol, which act chiefly by modifying the action of other food; the exact relation of a given quantity of food to a given amount of labour; the cause of the defective power of assimilation of food in prisons, and the relation of the elements of the food taken to those which are fixed in and thrown out of the body.⁹³

This powerful statement reveals much about the aspirations of mid-century nutritional and dietetic scientists and the manner by which some of them – especially Smith – sought to make experimental use of institutionalized populations as control groups not only to address pressing questions about prisoner health but also to formulate knowledge with broader social utility. His key aim was to design a graduated list of the differing dietary needs of prisoners based upon their levels of work and energy exertion. In doing so, he aspired to producing knowledge of food that might eventually be transferred to bolster communal dietetic well-being.

Ultimately, however, both Smith and Lankester failed to convince the Home Office and contemporary prison authorities of the practical value of nutritional theory. This letdown in fact illustrates an important point about nineteenth-century scientific food discourses: the practical usefulness of mid-century food experimentation was in fact highly contested.⁹⁴ This lack of certainty about empirical understandings of food was particularly evident in the visible tensions then in play between scientific theory and institutional prison practice. In contrast to their colleagues' experiences in the asylum, physicians and medical scientists seeking to structure the physical experience of prison life around their own ideals found themselves competing against various forces, including an overriding moralism bent on ensuring that dietary arrangements remained punitive and a profound scepticism towards the analytical techniques being employed by individuals including Smith. Revealingly, Irish prison diets were adjusted in 1868 following a series of official investigations. In a set of distributed questionnaires accompanying these, thirty-two out of thirty-nine prison governors, and thirty-seven out of thirty-nine prison surgeons, agreed that food provisions for those serving sentences of hard labour were insufficient and impeded prisoners from regaining employment upon release.⁹⁵ Thirty-six governors recommended the addition of a supper meal.⁹⁶ Overall, the report supported the provision of soups containing meat and vegetables, and also tea. Substituting gruel for milk was disallowed and the small portions previously allocated were now replaced with bulkier meals. Importantly, however, the Irish prison authorities who instigated these changes obstinately refused to entertain notions that the results of contemporary scientific investigations, which they dismissed as overly experimental, had in any way guided the changes made to Irish prison dietary arrangements.⁹⁷

Smith, meanwhile, found an adversary in British physician William Guy who, in the 1860s, served as a semi-official government advisor on prison health and Medical Superintendent at Millbank Prison. Anne Hardy identifies Guy as a figure with unyielding views on the discipline required to achieve social justice.⁹⁸ This was particularly visible in his perspectives on prison feeding. Refuting the experimental findings of Smith, Guy insisted that the prison diseases typically attributed to insufficient food – including diarrhoea, dysentery, scurvy, boils and carbuncles – presented relatively rarely.⁹⁹ He also insisted that the weight loss among prisoners observed by Smith was likely to have been caused by factors including the length of imprisonment, age, occupation, stature and time of year.¹⁰⁰ In particular, he lambasted the idea that the diets recommended in 1843 could in fact be adequately tested through analysis of excess quantities of carbon and nitrogen assumed to be necessary to support bodily health. In Guy's view, practical experience, coupled with observations made after Smith's experimental diet had been implemented at Millbank between September 1862 and March 1863, had produced evidence on weight loss and weight gain that ran contrary to Smith's theories. In fact, Guy observed that the health and strength of prisoners placed on Smith's diet had in fact tended to sharply decline.¹⁰¹ On this, he asserted that 'the figures, therefore, which have been so confidently assumed as the standards to which all our dietaries ought to conform themselves, will not bear the test of experience' and that 'the standard is inapplicable and the whole chain of reasoning irrelevant'.¹⁰²

Guy maintained that human bodies were too variable in nature, even in similar groupings, for dietary standards to be established.¹⁰³ Accordingly, he deemed it as inevitable that some prisoners would receive food provisions in excess of their needs while others would receive deficient supplies. Adopting a hard-line stance, he insisted that 'their [the prisoners'] diet should minister to their correction by being unattractive and monotonous; and

inasmuch as they are maintained at the cost of the community which they have injured and impoverished, it ought to be as economical as possible'.¹⁰⁴ In addition, he rallied against suggestions that dietary provisions should increase in accordance with the length of sentence as that arrangement ultimately meant that prisoners received a superior and more nutritious diet than the rest of the community. 'The able-bodied pauper in the workhouse', explained Guy, 'and the honest working man, unless very favourably circumstanced, have less food to eat than the worst criminals'.¹⁰⁵ Guy also challenged suggestions that the depressing influence of prison life meant that higher quantities of food ought to be provided on the basis that 'no sensible physician would attempt to cure *ennui* with diet'. He added that:

The prisoner spends more time in bed than the working man does; he is warmly clad, lives and sleeps in a warm atmosphere, and is protected from the weather; he is not worked beyond his strength, he has time for his meals, he has no pressing anxieties, or urgent claims. His wear and tear of body and mind are reduced to the lowest point. These, then, are reasons for a moderate dietary scale.¹⁰⁶

Overall, Guy concluded that prison dietaries were 'framed under a timid feeling, originating in misconceptions as to the true cause of the epidemic at Millbank Prison, and belief that it was due to a reduction in the quantity of food'.¹⁰⁷

Conclusion

Contrasting the illustrative examples of asylums and prisons reveals the multifaceted ways in which medical imperatives interacted with institutional management in complex ways across the British Isles in a period when empirical knowledge of diet was in a formative state. The institutional care of the insane can be understood as having been ever more dominated by medical considerations across the timeframe under analysis. Groups of individuals who came to be known as the 'mentally ill' were subject, once institutionalized, to rigorous programmes of medical and moral treatment. Prisoners, in contrast, increasingly fell under the gaze of medical superintendence as medical men found new arenas in which to exert their expert influence. However, their influence proved less pervasive in the context of the prison as prisoners were simultaneously subjected to overriding factors including, particularly during the early to mid-nineteenth century, punitive forms of moralism.

For these reasons, this chapter has argued that scientific conceptions of diet played a formative role in the past experiences of the institutionalized, as well as public discussion of them, while having simultaneously provided a forum in which expert ideas on food could be formulated and tested. From the late 1790s, food and the manner by which it is ingested and digested by the human system became empirically known, as did the nutritional content of an array of foodstuffs. Institutional food provision, at certain historical moments, proved important to the formation of dietetic knowledge while institutional managers increasingly drew from medico-scientific knowledge when seeking to determine the most efficient means of using the institution to tackle insanity and crime. Both sites also transformed into places where knowledge of food was formed. Understandings of the relationship between appetite and mental incapacity were significantly advanced in asylums because of the ability of medical superintendents employed there to meticulously observe

patient behaviour. Prisoners, too, were subject to medical experimentation, particularly during the 1850s and 1860s, as they were confined groups whose dietary arrangements and health could be closely regulated, monitored and investigated. The relationships between insufficient food provisions and the onset of specific illnesses also became particularly clear in institutional settings, especially during periods of disease outbreaks. This helped medical investigators to draw links between nutritional deficiency and chronic disease. However, a sharp division between theoretical knowledge and its practical implementation was also evident, as evidenced by William Guy's practical refutation of Edward Smith's theoretically-driven investigations. Furthermore, the case for sufficient feeding in both asylums and prisons across Britain and Ireland was restricted by other institutional demands such as the need for financial frugality or for punitive measures to be upheld. Nonetheless, despite the complexity of the issue of institutional feeding, its significance to food history rests in the manner by which the agendas of medical scientists and institutional managers converged during the late eighteenth and nineteenth centuries due to a shared interest in negotiating the dietary arrangements of the institutionalized.

Notes

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