‘A rebellion of the cells’: cancer, modernity, and decline in *fin-de-siècle* Britain

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In 1899, the *Contemporary Review* published an article by the English physician Woods Hutchinson (1862–1930) entitled ‘The cancer problem: or, treason in the republic of the body’.¹ In this article, thick with metaphorical allusions and polemic, Hutchinson condensed to thirteen pages the diverse and fraught anxieties that attended cancer in late nineteenth-century Britain. He wrote about how, over the past thirty years, the ‘deaths per thousand living from this malady’ had doubled in England, and ‘nearly trebled’ in the United States. Writing in the *fin de siècle*, Hutchinson argued that cancer was among ‘our oldest, deadliest, and most-studied diseases’, while at the same time positioning it as an unintended consequence of Victorian civilisation and progress. He presciently posed cancer as ‘the riddle of the Sphinx for the twentieth century’.²

It is a well-known and often rehashed trope that cancer today constitutes an unintended consequence of modernity. Or, as Charles Rosenberg so eloquently puts it, ‘the notion that the incidence of much late twentieth-century chronic disease reflects a poor fit between modern styles of life and humankind’s genetic heritage’.³ However, while Roy Porter called cancer ‘the modern disease *par excellence*’ and Siddhartha Mukherjee described it as ‘the quintessential product of modernity’, they locate that modernity firmly in the twentieth century.⁴ Thus, while cancer is widely recognised today as a problem of progress, it is strangely absent from histories of this idea. This chapter goes some

way towards filling this lacuna by exploring the construction of cancer as a 'disease of civilisation' in Victorian Britain. Cancer in the nineteenth century remains understudied, and work that has been done has predominantly focused on the twentieth century.⁵ This asymmetry can be partly explained by the ways in which cancer and chronic disease have been conceptualised. There is an internalised understanding of the history of health as aligning with the epidemiological transition model, which posits era-specific diseases: from the age of pandemics in the medieval and early modern periods, to the age of infectious diseases in the nineteenth century, to the age of degenerative or man-made maladies in the twentieth.⁶ All this works to obscure cancer from our view of the nineteenth century.

Yet, and as exemplified by Woods Hutchinson's anxieties, this posited relationship between civilised life and the incidence of cancer is not confined to the present day. Rather, similar debates about the impact of modern life on the integrity of our cells can be found circulating at the end of the nineteenth century. This chapter owes much to recent historiography on the *fin de siècle*. Such scholarship has focused on micro-histories and examined the period through 'kaleidoscopic edited collections'.⁷ Cancer is one such micro-history, and allows us not only to trace the metanarratives of progress and decline, but also to interrogate what, if anything, was specific to the conceptualisation of the disease at the turn of the nineteenth into the twentieth century. In what follows, I will outline the ways in which this perceived 'cancer epidemic' captured the medical and lay imagination, and promoted fierce debate in the pages of medical journals, general-interest periodicals, and in parliament. Drawing from literature on medical metaphors by scholars such as Laura Otis, Michael Stolberg, and Susan Sontag, I argue that cancer was easily incorporated into contemporary anxieties about degeneration and decline, and constructed as a malady of modern life using long-standing and flexible disease metaphors.⁸ In this way, the disease was used to interrogate those facets of society and culture that appeared new and 'modern' to nineteenth-century medical men.

Cancer in the nineteenth century

From the late eighteenth century, cancer was increasingly addressed in both medical practice and culture, corresponding with rising popular

and professional anxiety about the disease. Cancer appeared regularly in print and periodical material: alternative and itinerant practitioners hawked their wares, philanthropists lamented the cancerous pauper, and obituaries recorded it as cause of death among the wealthy and notable. It was also etched on the urban landscape – from the late eighteenth and early nineteenth centuries, cancer-specific institutions were constructed in London and later in other towns and cities across the British Isles. In 1792, the Middlesex Hospital established a ward devoted to the care of cancer patients, and in 1802 a close-knit circle of medical and surgical elites founded a cancer hospital just off Tottenham Court Road.⁹ Both institutions served the local, urban, plebeian population, but people also travelled in from the surrounding countryside.

These two hospitals provided clinical evidence for a flurry of publications, and various familiar figures – urban surgical elites like John Abernethy, Everard Home, Charles Bell, and Thomas Denman – wrote tracts and treatises on the disease, derived from their new encounters with cancer on the hospital wards.¹⁰ Thus, both institutions contributed to the codification of cancer, by which various incidental features of the disease were transformed into essential, identifying characteristics. For both doctor and patient, cancer was first indicated by the presence of a mass or growth. When someone arrived at the hospital they were subjected to physical examination – the surgeon on the ward poked, prodded, felt, smelt, and tasted the tumour. However, cancer could not be diagnosed by the senses alone; it was also defined by its long duration, its irreversible capacity for growth and spread, and ultimately its incurability. The clinical context made the disease more visible to the practitioner by enabling them to witness the entire 'life course' of the disease, from diagnosis through to death and beyond.

These cancer-specific institutions were explicit in allowing patients to remain 'until either relieved by Art, or released by Death'.¹¹ Consequently, people could be housed for months or even years, and frequently made repeat visits to the hospital for increasingly lengthy stretches of time. Most people who sought medical care at the hospitals did so while suffering under tumours of considerable magnitude. A patient treated by the surgeon John Pearson had a 'cancer in her right breast the bulk of a man's head'.¹² These extreme scales confirmed cancer as a disease with a monstrous capacity for growth and expansion. The Irish physician and pioneer in the study of cancer, Walter Hayle Walshe

wrote in 1842, 'One of the most essential attributes of cancerous substance is an unswerving tendency to grow'.¹³ This growth potential was not just about the tumours' ability to expand, but also about cancer's tendency to metastasise. Practitioners were well aware that masses on the surface of the skin might have ancestors or descendants buried deep within internal flesh. Finally, with depressing regularity, the patients on the cancer ward died. Thus, cancer in the nineteenth century was defined as an intractable malady, unassailable by medical intervention and nature alike.

However, cancerous growth and spread was not confined to the textures of the human body. In the middle of the nineteenth century, the disease was increasingly conceptualised as extending through the populations of the British Isles. This new anxiety depended on the increasing use and authority of vital statistics. The 1840s and 1850s saw the British populace increasingly quantified on a local, regional, and national scale. This practice derived in part from the development of statistical methods and epidemiology, and grew alongside a quantitative study of people and their activities more generally.¹⁴ These intellectual movements were increasingly institutionalised and professionalised, and by the 1860s the government was systematically undertaking a large quantity of official, numerical inquiries into the health of the nation. The main source of disease statistics was the *Annual Report of the Registrar-General on Births, Deaths and Marriages in England*, first presented to Parliament in 1838.¹⁵ In 1839, the statistician William Farr joined the General Registry Office (GRO), and proceeded to tabulate regional and national vital statistics – births, marriages, and deaths – for each of the country's divisions. The GRO also calculated the annual mortality by each cause and the proportion of deaths in 100,000 effected by each class of disease in each region. Parallel reports were later produced for Scotland, Wales, and Ireland.¹⁶ Cancer was integrated into this practice from the outset.¹⁷ The Medical Officers of Health (MOH) reports, first produced in 1848, ran parallel to the GRO's output. They, too, provided vital data on birth and death rates, infant mortality, incidence of infectious and other diseases, and a general statement on the condition of the population. The MOHs tabulated causes of death according to disease and stratified by age. From 1856, the reports included cancer in their nosology. Narrative prefaces to each annual report situated individual investigations within a broad chronology, and enabled

doctors and public health professionals to comment on yearly shifts in the disease profile of the nation.¹⁸

As the quantity of data on cancer accumulated, observers began to draw conclusions about the changing incidence of the disease over time. Cancer appeared to be increasing. The *Forty-Second Annual Report*, published in 1879, recorded that among men of all ages, cancer was the cause of 4,121 deaths, the same order as diseases such as diarrhoea (5,712), whooping cough (5,804), scarlet fever (9,148), and measles (4,678). It also caused many more deaths than cholera, the quintessential Victorian malady (122). Among women the figures were even more dramatic, accounting for 8,508 deaths, more than any other disease.¹⁹ The preface elaborated on these high numbers, and expressed concern over the increased mortality from cancer, which had 'maintained the increase to which it has been gradually mounting for many years.'²⁰

Responses to this observed increase became progressively fretful. In 1883, the *British Medical Journal* published an article which lamented that, 'a cursory examination only is sufficient to divulge that the Fell disease claims year by year a higher ratio of victims.'²¹ Commenters made use of an emotive vocabulary to express their concern: 'Unhappily ... a strict examination of the facts and figures bearing upon it, must lead to the painful and disquieting conviction that cancerous disease is, year by year, becoming more fatal in this country.'²² This bleak prognosis – both for individuals afflicted with cancer, and for the population as a whole – filtered through multiple strata of nineteenth-century society. Concern over the new 'cancer epidemic' was not confined to professional discourse; rather evidence for, and debates about, the increase in cancer appeared in a variety of publications. Writers frequently invoked melodramatic language to impress upon the public the gravity of the cancer epidemic. In 1895, the English physician and inventor of the clinical thermometer, Clifford Allbutt, commented in the *Contemporary Review*: 'There is a bitter cry that cancer is on the increase.'²³ In 1907, the *New York Times* wrote, 'The cancer problem is assuming more and more menacing proportions ... we are doing nothing to hold cancer in check as a cause of mortality.'²⁴ Even the fashion magazine *Vogue* despaired: 'It is sad news indeed that cancer is increasing at such a rate that it begins to rival the white plague – as tuberculosis is called – in the number of its victims.'²⁵ Comparing cancer to consumption – the archetypal

romantic tragedy of the *fin de siècle* – would have had a powerful impact on readers and cemented the supposed increase in the incidence of cancer in the imaginations of the middle classes.²⁶

Why, then, was cancer increasing at such a rate? Writers at the end of the nineteenth century drew on an eclectic range of theories, all grounded in the intellectual, cultural, and political climate of the *fin de siècle*. Some argued that diet and lifestyle were key to the shifting epidemiological profile of the disease. The medical officer of Freetown, Sierra Leone, W. Renner suggested that ‘preserved and imported foreign [European] food’ was responsible for cancer’s spread and increase amongst indigenous populations.²⁷ Similarly, the Surgical Registrar to the Middlesex Hospital, W. Roger Williams proposed that a simpler, less decadent diet was likely to protect against the disease.²⁸ Cancer – then as now – was conceptualised as a disease of civilisation, an unintended consequence of progress. Anxiety over the perceived increase of cancer was provoked in part by research that seemed to suggest the epidemic was not confined to Western or so-called ‘developed’ nations. Doctors across the British Empire were, at the end of the nineteenth century, engaged in a large-scale evidence-gathering mission. Data and anecdotal evidence was compiled to create cancer maps of the globe. Commenters plotted populations on a gradient – from immune to cancer-riddled – at one end Sub-Saharan African communities, at the other Anglo-Saxon or Teutonic races: ‘Observation has shown that cancer has a certain geographical distribution. It prevails extensively in some parts of the globe, and is scarcely known in others.’²⁹ This mapping was marshalled as evidence for cancer as a ‘disease of civilisation’. Not only was the disease on the increase, the epidemic was confined to nations that were understood as biologically, culturally, and economically superior.

If Britain was particularly susceptible, its colonies were at the other end of the spectrum. The *British Medical Journal* acted as a nexus of cancer evidence, sent in from across the empire. Medical men reported back from their respective colonies with quantified and narrative assessments. In 1906, the *British Medical Journal* commented: ‘There can be no doubt that cancer in natives of British Central Africa is of the utmost rarity. Repeated efforts made by Government medical officers throughout the country for some time past have so far resulted in the discovery of but a single case.’³⁰ The situation in Sierra Leone was similar: ‘Cancer

as a disease is very rare among the aborigines ... I would rather not say that the aborigines are immune from the disease, but that the disease is rare among them.³¹ Dr A. J. Craigen, writing from Port Moresby in New Guinea in 1905, reported 'that during his stay of nearly four years in the Possession he has not yet seen a single case of cancer among the native population.'³² The disease was also rare in Ceylon.³³ Cancer rates were slightly higher in Hong Kong: 'The returns made to the Registrar-General show that the total number of deaths among the Chinese in the period 1895–1904 was eleven, giving an annual death rate from cancer of 4.45 per 100, 000 of population.'³⁴ However, as Dr Francis Clark, Acting Principal Civil Medical Officer pointed out, this compared 'very favourably with the death rate from the same cause in England'.³⁵

Cancer was also used to subdivide the 'advanced' races. William Hill-Climo, a fringe clinician articulating mainstream views, wrote in 1903:

During the past forty years the death-rate from cancerous diseases in all European countries, and in the United States of America has steadily risen ... So widespread and so continuous is this increase, that it cannot be ascribed to local or accidental causes, but it must be sought for in the growth of new conditions, to a greater or less extent, common to all the affected countries, which the people themselves have produced.³⁶

According to Hill-Climo, the 'cancer epidemic' was man-made, and produced by some shared element of civilised society. England appeared to suffer the greatest burden: 'Englishmen may be regarded as unfortunate; for within the geographical area of these islands cancer asserts largely its malignant and fatal influence.'³⁷ The *British Medical Journal* wrote in 1903, 'In considering countries as a whole it appears that the disease is more common in rich countries such as England, France, Holland, and Bavaria, while the lowest rates are among the poorer nations, Italy and Ireland'.³⁸

It was in this period in Britain that meditations on national decline and biological degeneration reached their zenith. Thus, this pathological asymmetry was explained through then current notions of racial hierarchy.³⁹ In 1880, E. Ray Lankester wrote, 'We are subject to the general laws of evolution, and are as likely to degenerate as to progress'.⁴⁰ He was one of many writers negotiating theories of decline at the turn of the nineteenth into the twentieth century. This body of

literature dealt with the 'apparent paradox' that civilisation itself 'might be the catalyst of, as much as the defence against, physical and social pathology'.⁴¹ *Fin-de-siècle* commentators were anxious that neither the 'natural' triumph of the 'civilising' imperial Western powers, nor the stability of the racial order, was guaranteed. Such a socio-cultural evolutionary viewpoint was characteristic of British anthropology after c. 1860 and infiltrated a range of academic pursuits and public conversations.⁴² Scholarship in this area is extensive and the historical narratives are complex; cancer theorists, however, were drawing on a variety of overlapping concepts that formed the vocabulary of the late Victorian bourgeoisie. These concepts included ideas about the diversity of humankind and its maintained relationship with biblically determined hierarchies; the positivistic and naturalistic study of the progress of civilisation; a tradition of Anglo-Saxon racialism and ideas about inherent Teutonic superiority; and broader notions of biological and racial determinism.⁴³ These intellectual movements were taking place in a context of increasingly punitive and violent imperialism, intra-European competition, rising nationalism, and anxieties about demographic realities within the United States of America, Britain, France, and the rest of Europe.⁴⁴

Animal health was used as a proxy for human diversity in disease incidence and the shape of the debate confirmed the causal relationship between cancer and civilisation. Wild animals were discursively connected to 'wild' or 'uncivilised' peoples. And, parallels were drawn between 'civilised' man and domesticated creatures: 'Cancer is by no means an uncommon disease among the domesticated animals, while in wild animals and uncivilized man it is rare.'⁴⁵ This comparative exercise rested on the assumption that cancer was the same disease in both humans and animals.⁴⁶ W. Roger Williams claimed: 'I have never met with a single instance of cancer in any wild animal in a state of nature ... It is, of course, well known that wild animals that have been kept long in confinement may be thus affected.'⁴⁷ This caveat tapped into a key question for late nineteenth-century cancer theorists: was the differential between civilised and uncivilised cancer rates (in both animals and humans) caused by body or lifestyle? If you brought a wild creature into a domestic context – a menagerie for example – would its propensity to cancer increase? Or, did the inherent bodily structure of each dictate its vulnerability?

Thus, various commenters sought to explain why 'civilised' races might be more prone to cancer than their 'barbarous' counterparts. Some argued that a propensity towards cancer was created by inherent racial distinctions between home and abroad, whereas others suggested the uneven epidemic was a product of correlating styles of life. This opposition (although not an explicit one) was in part a product of chronology, and can be mapped on to a broader shift from environmental determinism to biological determinism in *fin-de-siècle* science and medicine. It is a hallmark of late nineteenth-century anthropology that race was believed to rest on material facts – 'it is no arbitrary idea, no abstraction'.⁴⁸ Moreover, that certain races were inherently more or less vulnerable to certain diseases was a common concept in Victorian medicine. In his 1883 'Address in Pathology', the parasitologist Charles Creighton wrote that smallpox was 'peculiarly an African disease'. This particularity was a biological one – 'the loathsomeness, the peculiar odour, and the no less peculiar scars of small-pox, might of themselves suggest another skin than ours'.⁴⁹ In contrast, cancer was a disease of white skin. However, for most *fin-de-siècle* commenters, cancer was less a product of the civilised *body*, and more of the civilised *way of living*.

The impact of the civilised experience was, for nineteenth-century writers, clearest in Creole or mixed-race populations. W. Renner wrote about the Creole populations of Sierra Leone – 'the descendants of the liberated Africans'. He claimed that there was an increase in cancer among them, in contrast with its, 'apparent rarity among the aborigines in the colony and in the hinterland of Sierra Leone'.⁵⁰ Renner's argument was that this was due to the influences of European civilisation and the adoption of the 'European mode of living': 'the existence of cancer and other malignant growths among the creoles, and its absence or rarity among the aborigines, are due in my opinion to the civilised habits of, and the civilising influences operating upon, the former, and to the primitive mode of living of the latter'.⁵¹

Renner was concerned that changes in lifestyle were making Creoles more prone to cancer – that through adopting the 'mode of living, the food and dress, of the Europeans', creoles had discarded their 'natural' African environment and styles of life, and substituted instead an inappropriate decadence. In their 'eager pursuit for wealth and luxury', they had brought about premature degeneration and decline.⁵² This sentiment was echoed by Sir William MacGregor, Lieutenant-Governor of

British New Guinea, in the *Lancet*. During his nine-and-a-half-year tenure, the only example of cancer he ever saw was, 'in the person of a Papuan who had for seven or eight years lived practically a European life'.⁵³ Renner framed his analysis as concern for the well-being of the Creole population. However, it can equally be read as an invective against populations deviating from their 'proper' and 'natural' state of existence. In 'their eager pursuit for wealth and luxury', the Creoles were subverting the hierarchy inherent in the British Empire's system of rulers and ruled, and suffering increased rates of cancer as a result. Renner was reflecting commonly held views at the end of the nineteenth and beginning of the twentieth centuries. His concerns manifested widespread beliefs about the dangers of transgressing natural racial divisions. Many Victorian commentators saw Nature as aristocratic, mercilessly punishing impure blood.⁵⁴

W. Roger Williams made parallel arguments about Africans. While they remained in Africa, 'negroes' appeared to be 'almost exempt' from cancer. Similarly, living in slavery in the United States – 'with hard work and frugal diet' – cancer remained uncommon. However, since the abolition of slavery, 'and the altered habits thus entailed', the 'United States negroes have become almost as prone to cancer as their white neighbours'. According to Williams, there was nothing inherent in the bodies of black Africans, rather their susceptibility to malignancy was conditioned by the way they lived.⁵⁵

Metaphors of degeneration and decline

Why did *fin-de-siècle* citizens construct cancer as a disease of civilisation?⁵⁶ Why did they discursively connect it to social degeneration and decline? I argue that this phenomenon was dependent on the metaphorical fluidity of cancer's identity in the nineteenth century and before. Scholars such as Laura Otis have argued that metaphors and analogies are not just rhetorical techniques, but express actual scientific and medical understanding.⁵⁷ The extent to which cancer, in particular, has been understood through metaphors and analogies is well documented.⁵⁸ In her seminal work, *Illness as Metaphor*, Susan Sontag wrote, 'I want to describe, not what it is really like to emigrate to the kingdom of the ill and live there, but the punitive or sentimental fantasies concocted about that situation: not real geography, but

stereotypes of national character'.⁵⁹ She navigates various diseases, but returns to cancer time and again: 'Cancer remains the most radical of disease metaphors'.⁶⁰

There was a confluence between imaginings of society and biological understandings of cancer in this period – a relationship made possible by the well-established 'essential congruity between medicine and culture'.⁶¹ Crucial to this connection was language that linked the body biological to the body politic. This relationship was not specific to cancer, but common to cultural and medical discourse throughout the nineteenth century and before. In Hutchinson's text, the body is described through analogy to the state; he speaks of 'cell-citizens', 'lymph-roads', and 'the body-fortresses'.⁶² Similarly, Rudolf Virchow repeatedly described the cell through analogy to the individual person: 'A cell ... yes, that is really a person and in truth a busy, and active person'.⁶³ Thus, the 'cancer epidemic' was read through this metaphorical body–nation connection, and its narration was particularly dependent on prevalent assumptions about the disease's specific causes and cures.

Various aspects of cancer's identity in this period shaped the disease's discursive relationship to civilisation and its decline. Cellular pathology – introduced into Britain in the late 1850s – played a significant role. As applied to cancer, the idea was that normal human cells were converted to malignant cells – that these diseased units arose spontaneously in the body and were derived from healthy tissue. As one observer wrote in 1858, 'there appears, then, no reason to regard the cells found in cancerous growths other than as the ordinary ones formed for the development of healthy tissue, which have taken on an abnormal character'.⁶⁴ This 'abnormal character' was primarily their capacity for growth: 'the primordial cell divides and divides again, till the whole has become converted, by the process of segmentation, into a mass of nucleated cells'.⁶⁵ Frequently, this process was described in 'unnatural' terms. In his 1874 Goulstonian Lectures, J. F. Payne wrote that 'the tumour ... has no very definite limit, and shows no conformity to rule in its shape'.⁶⁶ Unlike 'natural' bodily processes, cancer was not governed by discernible laws; cancerous tumours instead demonstrated a 'monstrous exaggeration of growth'.⁶⁷

Such narratives found easy parallels with *fin-de-siècle* discourses about the civilised nation and its supposed inevitable decline. There

were clear parallels to be drawn between a healthy body ultimately succumbing to disorder, and a prosperous nation or empire suffering necessary deterioration. The new 'cancer epidemic' emerged in a climate of widespread anxiety about the vigour of empire, concerns about imperial overstretch, and worries that Britain might be vulnerable to the destructive effects of the unruly, ungovernable, and the newly enfranchised 'crowd'.⁶⁸ This latter anxiety tracked contemporary bourgeois fears over the threat of social revolution, political anarchy, and urban proliferation. The idea that these 'advanced' societies (or bodies) – marked in every other way by order and design – could be particularly susceptible to cancerous growth resonated with the metaphorical language used to describe the disease's physiology and pathology, and only cemented the connections between cancer and these worrying aspects of late nineteenth-century Western civilisation.

In line with the links drawn between cells and citizens, Hutchinson described cancer as 'a rebellion of the cells'.⁶⁹ He went on to describe how, 'in the body-republic, where we have come to regard harmony and loyalty as the almost invariable rule, we suddenly find ourselves confronted by anarchy and revolt'.⁷⁰ Another writer outlined the cancer process: 'one day, from an unknown cause, these microcosms are thrown into disorder. A cell or a group of cells commences to multiply and proliferate in an unusual manner, and the mass thus formed forces back the healthy tissue around it'.⁷¹ When a cancer is discovered in the body, 'anarchy may have been said to have arisen in the community, and everything is in confusion'.⁷² This is a declinist narrative of the body – hitherto governed by order and progress, now entropy takes over, and it descends into chaos. Drawing on cellular pathology, these evocative descriptions personify the cancer cell: 'In a cancer we have cells and nothing but cells, which refuse to explain why they have left their places, and have much less the air of policemen than the suspicious demeanour of vagabonds'.⁷³

This declinist narrative of cells and nation was not without its discontents. While cancer might have been tied to the late stages of civilisation, the same metaphors that linked the body biological to the body politic also provided evidence of social advance and prosperity. In 1893, George King and Arthur Newsholme published a thirty-three-page article entitled 'On the Alleged Increase of Cancer' in the *Proceedings of the Royal Society of London*.⁷⁴ The introduction sculpted the shape and

profile of the debate at the *fin de siècle*: 'During the last few years the minds of medical men and of the general public has been exercised over the rapid and striking increase in the mortality from cancer, as shown by the statistics contained in the Registrar-General's Annual Reports.'⁷⁵ However, they then went on to offer a rebuttal to the dominant narrative of increasing cancer rates. They presented a careful consideration of the GRO data and summarised many of the key critiques of the supposed increase in the incidence of cancer. King and Newsholme were not alone. For every commenter insisting on the epic proportions of the cancer epidemic there was a countervailing argument suggesting that the panic was baseless.

Anthropologist Erin O'Connor has argued that the metaphors used by nineteenth-century doctors allowed them to 'contemplate breast cancer as a surgical rather than sexual problem'. The discursive connections they drew between cancer and civilisation, so she argues, separated the breast from 'questions of sexuality, identity, and womanhood' and so enabled surgeons to develop effective operative techniques: 'objectifying, yes: but only as a saving grace.'⁷⁶ O'Connor suggests that these processes were intimately associated with, and led up to, the development of the radical mastectomy in the 1890s. I argue instead that these rhetorical devices not only continued into the new century, but they also served a slightly different purpose. Rather than just enabling increasingly radical surgical intervention, metaphorical allusions to progress and decline in cancer discourse allowed medical men to invert the distressing conclusions of social commentators. Cancer was articulated not as an indicator of collective failure, but as a barometer for the quality of a nation's social medicine and public health. This helped to redefine cancers as a *disease of health*. This was both explicit and implicit in the writings of medical men and their lay counterparts. Hugh P. Dunn wrote, 'cancer is said to abound in the healthiest districts and amongst the people who are most robust.'⁷⁷ This claim was supported by close statistical analysis, undertaken by the Scottish statistician and later president of the Royal Statistical Society (1947–49), David Heron. He wrote in 1906, 'the conditions of prosperity and culture which lead to a low birth rate also conduce to a high cancer death-rate. In other words, cancer cannot, like phthisis, be taken as a measure of that unhealthy environment with which a high birth-rate seems to be associated.'⁷⁸ Here, Heron inverted contemporary speculation that

falling birth rates were the result of national decline and degeneration.⁷⁹ For Dunn and Heron the relationship between cancer and civilisation was *unlike* the conceptualisation of various diseases of poverty such as cholera, rickets, and typhoid. Cancer may have been a pathology of progress, but it was not caused by industrialisation and its well-known pathological corollaries: filth, overcrowding, lack of sunlight, and moral depravity. But rather, and somewhat paradoxically, the disease was an unintended consequence of civilisation and its attendant health, wealth, and social improvement.

Even publications sceptical of Heron's analysis had to begrudgingly admit their research revealed that the cancer death rate tended to rise with increasing social status.⁸⁰ This inverse relationship worked on a national level as well. Dunn emphasised a correlation between an entire population's ill health and infrequent cancer incidence, 'a high general mortality would be associated with a low cancer one.'⁸¹ Hutchinson was succinct in his analysis of the question of cancer and national health, 'Paradoxical as it may sound, [cancer's] greater prevalence is a symptom of increasing longevity and vigour on the part of the community. Cancer is the price paid for longer life.'⁸² Dunn went even further, 'a disease such as cancer, which is characteristic of the healthy, may be expected to abound amid conditions of health.'⁸³

Key to this conceptualisation of cancer as a disease of individual or national health was the increasingly prevalent understanding that this was a malady that particularly affected the elderly. Hutchinson described cancer as 'emphatically a disease of senility, of age.'⁸⁴ This tendency was used to explain the increase in the incidence of the disease as the nineteenth century progressed. Commenters criticised statistics that failed to correct for error due to the survival of an increasing number of persons to higher ages. The age-incidence of cancer was also brought to bear on discussions of the disease's geographical variations. Head of the Imperial Cancer Research Fund, E. F. Bashford observed:

Civilised man's responsibility for the occurrence of cancer among native races brought into contact with civilisation, and in domesticated mammals, may merely be limited to providing them with opportunities for reaching their respective cancer ages.⁸⁵

Civilisation was indeed bringing cancer to colonised territories, but only, he suggests, in that it was improving the life expectancy of their

inhabitants. The cancer incidence of various nations and regions was now tied up with their demographic profiles. Shifting birth rates, death rates, and infant mortality were responsible for variations in cancer rates, further cementing the association between cancer, the population, and national health.

Cancer was, therefore, constructed as a disease of late nineteenth-century modernity. For some it was a product of social and biological progress, and for others, a consequence of national and imperial decline. In the minds of nineteenth-century writers, the nation-state mirrored the processes of the natural body. It grew, advanced, and improved, before beginning an inevitable and irreversible decline, only for life to be ended by a catastrophic rebellion of cells, or rather population. This trajectory was only available to those nations/individuals who achieved both longevity and modernity. Thus, societies and communities that were situated on lower rungs of the Victorian racial hierarchy were vulnerable to neither cancer nor collapse.

However, the age incidence of cancer, and discourse that used it to explain away the epidemic, was not without its paradoxes and complications. There are clear parallels to be drawn between a healthy body ultimately succumbing to disorder, and a prosperous nation or empire suffering inevitable decline. Cancer was understood to affect organs that had begun to 'atrophy' (breasts after the menopause, for example), and to flourish in countries and empires that had diminished in influence (as many interpreted Britain to be). High cancer incidence was, therefore, both an indicator of civilisation, and the mechanism by which that civilisation would fall apart. This metaphorical coating around the age-incidence of cancer gestures towards the paradoxes inherent in late nineteenth-century disease discourse. A greater proportion of your population living to old age was in many ways a positive indication of the 'quality' of your people and the 'quality' of your governance and ways of living. However, if that 'old age' was also a 'cancer age' there were certain implications – practical and theoretical – for the nature and trajectory of individual bodies and societies at large. Anxieties about social and national decline were particularly fraught in the *fin de siècle* – the 'end of the century'. What did it say about the logic of the human body if at a certain point its internal order broke down? And what might that suggest about the logic of the body politic? And what was the role of public health and the medical profession in this unstable climate?

Perhaps the late-Victorian faith in progress buttressed a belief in these professionals' ability to tackle the new array of challenges presented by a healthier, and yet more cancerous, population. Cancer at the beginning of the twentieth century was simultaneously the 'dread disease' – a malady synonymous with death and disorder, which found easy metaphorical parallels in debates concerning the health and wealth of the nation and empire – and a disease of health. Accordingly, it came to be conceptualised in ways that reflected the complexities and ambiguities of 'civilisation' as a concept in *fin-de-siècle* Britain.

Roy Porter and Mikulas Teich's edited collection, *Fin de Siècle and its Legacy*, argues that this period was both a turning point and an enduring influence.⁸⁶ Various contributors trace the after-effects of the period through the twentieth century, and seek to show the ramifications of fundamental changes from before 1900. My micro-history of ideas around cancer slots into this approach, and provides an example of how the meta-narratives of progress, degeneration, and decline were themselves contextualised. While understandings of cancer at the *fin de siècle* owed much to their ancestors in the eighteenth century and before, they nonetheless acquired a unique character during the nineteenth century. This character persists into the twentieth century, and continues to shape our troubled relationship with the disease today. Cancer remains both the archetypal modern malady – tied to Western civilisation and necessitating the full technical arsenal of biomedical science – and an intractable and untameable foe, one that draws out our basest fears and anxieties about suffering and death. The most deadly of diseases is paradoxically a consequence of an increasingly healthy society. There is, therefore, an intimate and interdependent relationship between cancer and civilisation, which should cause us to rethink the nature of modern life and its capacity to incorporate death and disease.

Notes

- 1 W. Hutchinson, 'The cancer problem: or, treason in the republic of the body', *Contemporary Review* (July 1899), 105–17.
- 2 *Ibid.*, 105.
- 3 C. E. Rosenberg, 'Pathologies of progress: the idea of civilization as risk', *Bulletin of the History of Medicine*, 72:4 (1998), 714–30 (p. 714).

- 4 R. Porter, *The Greatest Benefit to Mankind: A Medical History of Humanity from Antiquity to the Present* (Fontana Press: London, 1999), 574; S. Mukherjee, *The Emperor of All Maladies: A Biography of Cancer* (Scribner: New York, 2011), 241.
- 5 There are, of course, exceptions. Frances Burney's 1811 mastectomy has received detailed scrutiny from feminist scholars such as J. Epstein and S. Mediratta: J. E. Epstein, 'Writing the unspeakable: Fanny Burney's mastectomy and the fictive body', *Representations*, 16 (1986), 131–66; S. Mediratta, 'Beauty and the breast: the poetics of physical absence and narrative presence in Frances Burney's mastectomy letter (1811)', *Women: A Cultural Review*, 19:2 (2008), 188–207. Cancer and gender in the nineteenth century has also been studied: I. Löwy, "Because of their praiseworthy modesty, they consult too late": regimes of hope and cancer of the womb, 1800–1910', *Bulletin of the History of Medicine*, 85 (2001), 356–83; O. Moscucci, 'Gender and cancer in Britain, 1860–1910', *American Journal of Public Health*, 95:8 (2005), 1312–21; *Gender and Cancer in England, 1860–1948* (Basingstoke: Palgrave Macmillan, 2016). Finally, cancer in nineteenth-century America has received more attention than in the UK: R. A. Aronowitz, *Unnatural History: Breast Cancer and American Society* (Cambridge: Cambridge University Press, 2007).
- 6 See A. Omran, 'The epidemiological transition: a theory of the epidemiology of population change', *The Milbank Quarterly*, 83:4 (1971), 731–57.
- 7 M. Teich and R. Porter (eds), *Fin de Siècle and its Legacy* (Cambridge: Cambridge University Press, 1990); S. Ledger and S. McCracken (eds), *Cultural Politics at the Fin de Siècle* (Cambridge: Cambridge University Press, 1990); S. Ledger and R. Luckhurst (eds), *The Fin-de-Siècle: A Reader in Cultural History, c. 1880–1900* (Oxford: Oxford University Press, 2000); M. Saler (ed.), *The Fin-de-Siècle World* (London: Routledge, 2015).
- 8 L. Otis, *Membranes: Metaphors of Invasion in Nineteenth-Century Literature, Science, and Politics* (Baltimore, MD/London: Johns Hopkins University Press, 1999); S. Sontag, *Illness as Metaphor and AIDS and its Metaphors* (London: Penguin, 2013); M. Stolberg, 'Metaphors and images of cancer in early modern Europe', *Bulletin of the History of Medicine*, 88:1 (2014), 48–74.
- 9 J. Howard, *The Plan Adopted by the Governors of the Middlesex-Hospital for the Relief of Persons Afflicted with Cancer: With Notes and Observations* (London: H. L. Galabin, 1792); B. Schoenberg, 'A program for the conquest of cancer: 1802', *Journal of the History of Medicine and Allied Sciences*, 30:1 (1975), 3–22; V. A. Triolo, 'The institution for investigating the nature and cure of cancer: a study of four excerpts', *Medical History*, 13:1 (1969), 11–28.

- 10 J. Abernethy, *Surgical Observations on Tumours* (London: Longman, Hurst, Rees, Orme, and Brown, Paternoster Row, 1811); C. Bell, *Surgical Observations; Being a Quarterly Report of Cases in Surgery; Treated in the Middlesex Hospital, in the Cancer Establishment, and in Private Practice* (London: Longman, Hurst, Rees, Orme, and Brown, Paternoster Row, 1816); T. Denman, *Observations on the Cure of Cancer* (London: J. Johnson and Co., 1810); E. Home, *Observations on Cancer: Connected with Histories of the Disease* (London: W. Bulmer and Co., 1805).
- 11 UCLH Archive, London, 'Weekly Board Meeting', Middlesex Hospital Minutes, 10 January 1792.
- 12 J. Pearson, *Practical Observations on Cancerous Complaints: With an Account of Some Diseases Which Have Been Confounded with the Cancer* (London: J. Johnson, 1792), 38.
- 13 W. H. Walshe, *The Anatomy, Physiology, Pathology and Treatment of Cancer* (Boston: William D. Ticknor & Company, 1854), 146.
- 14 I. Hacking, *The Taming of Chance* (Cambridge: Cambridge University Press, 1990).
- 15 E. Higgs, 'Registrar General's Reports for England and Wales, 1838–1858', *Online Historical Population Reports* <http://histpop.org/>. Accessed 13 October 2016.
- 16 J. M. Eyler, 'The Conceptual Origins of William Farr's Epidemiology: Numerical Methods and Social Thought in the 1830s', in A. M. Lilienfeld (ed.), *Times, Places, and Persons* (Baltimore, MD: Johns Hopkins University Press, 1980), 1–27 (p. 1).
- 17 B. P. Henniker, 'Deaths from several zymotic and other causes, and inquest cases, in the divisions, counties, and districts of England', *Forty-Second Annual Report of the Registrar-General* (1879), 186–97.
- 18 E. Higgs, 'The Annual Report of the Registrar-General, 1839–1920: A Textual History', in E. Magnello and A. Hardy (eds), *The Road to Medical Statistics* (Leiden: Brill, 2002), 55–76 (p. 55).
- 19 Henniker, *Forty-Second Annual Report*, 186–97.
- 20 *Ibid.*, xxx.
- 21 H. P. Dunn, 'An inquiry into the causes of the increase of cancer', *British Medical Journal*, 1:1163 (1883), 708.
- 22 *Ibid.*
- 23 C. Allbutt, 'Nervous diseases and modern life', *Contemporary Review* (1 January 1895), 215.
- 24 'Cancer Deaths Increasing: Porter Says the Malady is Assuming Menacing Proportions', *New York Times* (5 November 1907), 1.
- 25 'Cancer Increasing at an Alarming Rate', *Vogue* (15 April 1909), 726.
- 26 See C. Lawler, *Consumption and Literature: The Making of the Romantic Disease* (Basingstoke: Palgrave Macmillan, 2006).

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- 32 'Cancer in the colonies', 812.
- 33 *Ibid.*
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- 37 *Ibid.*
- 38 'A comparative statistical study of cancer mortality. V. General summary (concluded)', *British Medical Journal*, 1:2211 (1903), 1154.
- 39 A key text in this discourse is Max Nordau's *Degeneration*, first published in German in 1892 (New York: Howard Fertig, 1968).
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- 44 *Ibid.*
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- 47 W. R. Williams, 'Cancer in the lower animals', *British Medical Journal*, 2:2021 (1899), 815.
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- 49 C. Creighton, 'Address in pathology', *British Medical Journal*, 2:1179 (1883), 221.
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52 *Ibid.*

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55 Williams, 'Cancer in Egypt', 917.

56 Anthropologist Erin O'Connor has argued that in the mid-nineteenth century, British medical men discursively connected breast cancer to the industrial city and 'forged strong linguistic associations between breast cancer and urban culture'. E. O'Connor, *Raw Material: Producing Pathology in Victorian Culture* (Durham, NC: Duke University Press, 2000), 61. However, elsewhere I have shown that Victorian practitioners were equally, if not more intensely, preoccupied by the relationship between cancer and rural space: A. Arnold-Forster, 'Mapmaking and mapthinking: cancer as a problem of place in nineteenth-century England', *Social History of Medicine*, 32:1 (2019).

57 L. Otis, 'The metaphoric circuit: organic and technological communication in the nineteenth century', *Journal of the History of Ideas*, 63:1 (2002), 105–28 (p. 127).

58 Metaphorical conceptualisations of the human body also took place in other medical and cultural contexts of the time. See Mukharji on the metaphors pertaining to the Ayurvedic body in Chapter 9 of this volume.

59 Sontag, *Illness as Metaphor*, 3.

60 *Ibid.*

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63 R. Virchow quoted in Otis, *Membranes*, 18.

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66 *Ibid.*, 293.

67 *Ibid.*, 294.

68 Gustav le Bon argued that individuals as well as crowds often showed the survival of traits that characterised previous stages in the development of

- society, or in the natural history of man. G. le Bon, *The Crowd. A Study of the Popular Mind* (London: Penguin, 1977), 13–23.
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- 70 *Ibid.*
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- 72 *Ibid.*, 2–3.
- 73 *Ibid.*, 4.
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- 75 *Ibid.*, 209.
- 76 O'Connor, *Raw Material*, 99.
- 77 H. P. Dunn, 'An inquiry into the causes of the increase of cancer (continued)', *British Medical Journal*, 1:1164 (1883), 762.
- 78 D. Heron, *On the relation of fertility in man to social status etc.* (London: Dulau and Co., 1906).
- 79 The period between 1860 and 1914 witnessed a dramatic fall in fertility in Britain and awareness of these developments prompted widespread anxiety and introspection. See S. Szreter, *Fertility, Class and Gender in Britain, 1860–1940* (Cambridge: Cambridge University Press, 1996).
- 80 J. W. Brown and M. Lal, 'An inquiry into the relation between social status and cancer mortality', *Journal of Hygiene*, 14:2 (1914), 19.
- 81 Dunn, 'An inquiry into the causes of the increase of cancer', 762.
- 82 Hutchinson, 'The cancer problem', 115.
- 83 Dunn, 'An inquiry into the causes of the increase of cancer', 710.
- 84 Hutchinson, 'The cancer problem', 112.
- 85 E. F. Bashford, 'An address entitled are the problems of cancer insoluble?', *British Medical Journal*, 2:2345 (1905), 1509.
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