

I attempted to reproduce Lou Bastidon on a firmer foundation and behold! the foundation became a pitfall. I began to play with house-building and garden-planning. There is a vividness, an immediate gratification of the creative instinct in this amusement, which can distract the mind very readily from reality. Men and women take to building and gardening as they take to drink, in order to distract their minds from the whole round world and its claim upon them, and all the Riviera is littered with villas that testify to the frequency of this impulse.

Lou Pidou 'was an amateurish, pretty house with a peculiar charm of its own' but it also brought new and different problems from Spade House:

it insisted upon growing and complicating itself; it became less and less of a refuge and more and more of an irksome entanglement with its own baffling bothers and exactions. I worked there with dwindling zest and energy and stayed less and less willingly and for briefer periods, as those good long sunlit hours in which I could think became rare and ragged and the necessity for management and attention more clamorous, when I realized I could work there effectively no more. (740-1)

Wells's language here is significant, giving the house a life and perhaps an agency of its own, growing beyond the plan, conspiring to rob him of his time and patience – it is an organic growth, not a planned realisation.

Wells brilliantly identified and analysed problems that started with the house but ended with the world. These problems animated his fiction and stimulated his political thinking. He was, however, more convincing as an architectural and social critic than a social architect: where Ebenezer Howard's vision became a partial reality – and politicians of all persuasions are now ambitious to revive it – Wells could only criticise and suggest communes and commuter suburbs.<sup>35</sup> There is, finally, an irony in his confession of boredom with house-building appearing in a section of the *Autobiography* entitled 'The Idea of a Planned World'. A planned house became impossible to control, and tedious to administer. What hope for a World State, if a new house on 'some land with a pretty rock, vines, jasmin and a stream close by' could turn out to be so intractable?

<sup>35</sup> The former Housing Minister Grant Shapps proposed in 2011 to revive Garden Cities and praised Howard's vision, and the Labour Leader Ed Miliband announced in 2013 new towns and new Garden Cities. See Grant Shapps, 'Garden cities: reshaping the ideas of the past for the 21st century', *The Guardian* (online edition), 9 September 2011 (<<http://www.theguardian.com/housing-network/2011/sep/19/garden-cities-grant-shapps-housing>>, accessed 15 October 2013).

## UNSEEN BATTLES: H. G. WELLS AND AUTOINTOXICATION THEORY

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### Introduction

'It is a pity', laments the narrator of *The History of Mr Polly* (1910), that human beings 'are not more transparent'.<sup>1</sup> For were the dyspeptic Mr Polly 'even passably translucent' (9) he might have more insight into the gastric turmoil and internal unrest that blight his afternoons, 'those grey spaces of time after meals' when all his courage has 'descended to the unseen battles of the pit' (11). Wells's novel is far from the only text of its period to bemoan the general public's ignorance of how the body functions – particularly in regard to digestion. Indeed, this paper will argue that the fascination with the digestive processes evident in Wells's work places it in conscious dialogue with contemporary medical and scientific writings on health and digestion, and in particular with the theories of autointoxication propounded by the American diet reformer Horace Fletcher (1849-1919), the celebrated British surgeon Sir William Arbuthnot Lane (1856-1943) and the Nobel-Prize-winning Russian immunologist, zoologist and anatomist Elie Metchnikoff (1845-1916).

What the narrator of *The History of Mr Polly* appears to share with these writers is not only a conviction that such 'unseen battles' have a direct, unsuspected and often devastating impact on an individual's mental and physical wellbeing – that our disordered digestive systems are literally poisoning us from within – but a belief that the dangers of this process of 'self-poisoning' can best be conveyed to a scientifically-illiterate public through the deliberate use of jarring, even startling, imagery. 'Would you employ a chauffeur to run your automobile who knew as little about its mechanism and requirements as you do about your own stomach?' demands Horace Fletcher in *The A.B.-Z. of Our Own Nutrition*, first published in 1903 and on to its sixth reprint by 1906.<sup>2</sup> This question is 'no joke', Fletcher insists, since upon efficient digestion depends 'not only health, but strength, mental acuteness, moral tendencies, attractability to others, happiness, and, in fact, life itself'.<sup>3</sup> Fletcher might be listing the very symptoms that afflict Mr Polly – whose insides are variously compared over the course of the novel to a 'civil war', a 'badly managed industrial city during a period of depression' (all 9), a resentful colony (117) and 'a confused and ill-governed democracy' in 'a state of perpetual clamour and disorder' (124).

Other prominent medical and scientific figures concurred on the dangers of indigestion, a condition defined by Sir William Arbuthnot Lane in 1904 as 'the

<sup>1</sup> H. G. Wells, *The History of Mr Polly* (1910), ed. Simon J. James (London: Penguin, 2005), 9. All subsequent page references are to this edition.

<sup>2</sup> Horace Fletcher, *The A.B.-Z. of Our Own Nutrition* (London/New York: B.F. Stevens and Brown/Frederick A. Stokes, 1903), 23.

<sup>3</sup> Fletcher, 25.

delayed functioning of the gastro-intestinal tract' and the 'altered condition of the intestines which results from improper feeding'.<sup>4</sup> The 'mental depression' associated with indigestion 'is most remarkable' warns Arbuthnot Lane, adding that 'loss of control over the temper is also a very marked feature' of the condition.<sup>5</sup> These are also very marked features of the character of Mr Polly, who hates himself 'with indescribable bitterness' and falls 'into a violent rage and hatred against the outer world' (9) after every badly-digested meal. It is worth recalling here that Wells's first published work was a *Textbook of Biology* (1893) – which compares and contrasts the digestive systems of various species – and Mr Polly is every inch the textbook dyspeptic.

In order to justify the seriousness with which this article proposes to treat Mr Polly's dyspepsia it is important to register just how grave a threat to health disordered digestion could be during the nineteenth and early twentieth centuries – and how little the workings of the digestive system were understood. In his *Experiment in Autobiography* (1934) Wells traces the impact of his poor early diet on his physical development and suggests that persistent misfeeding and underfeeding was partly responsible for his physical collapse with kidney problems and suspected tuberculosis in 1887-8. Furthermore it is not poverty Wells blames for the deficiencies of his childhood diet, but lack of scientific understanding. The 'vitamin insufficiency that gave my brother Frank a pigeon chest and a retarded growth', Wells writes, could easily have been avoided by the administration of cod liver oil. Unfortunately for Frank, however, 'No one knew about vitamin D in those days.'<sup>6</sup> Even more poignantly, Wells records that the sudden death of his sister from appendicitis in 1864 was simply attributed to 'inflammation of the bowels', since 'the nature of appendicitis was unknown in those days.'<sup>7</sup> Similarly, Hillel Schwartz notes that 'Gastritis was listed as the third leading cause of death in the United States in 1900', with this diagnosis being used as 'a blanket term for most intestinal ills'.<sup>8</sup> Mr Polly's father, for instance, dies of 'some mysterious internal discomfort', misdiagnosed by his physician as 'imagination' (37). Tempting though it may be to interpret Mr Polly's own indigestion in similar terms – as symbolic of his general social and intellectual frustration, a metaphorical side-effect of an excess of imagination – the novel discreetly cautions that such a misdiagnosis may have grave consequences. The symptoms of indigestion which afflict Mr Polly are precisely those that Fletcher and Arbuthnot Lane were warning their readers not to ignore at the very peril of their lives.

<sup>4</sup> Sir William Arbuthnot Lane, *Operative Treatment of Chronic Constipation* (London: Medical Publishing Company, 1904), 25. Texts of this period, including Wells's own, use the terms 'indigestion' and 'dyspepsia' interchangeably – as does this article.

<sup>5</sup> Arbuthnot Lane, 18, 19.

<sup>6</sup> H. G. Wells, *Experiment in Autobiography* (New York: Macmillan, 1934), 42.

<sup>7</sup> H. G. Wells, *Experiment in Autobiography*, 42.

<sup>8</sup> Hillel Schwartz, *Never Satisfied: A Cultural History of Diets, Fantasies and Fat* (New York/London: The Free Press/Collier Macmillan, 1986), 131.

It is not only human beings who suffer from indigestion in Wells's writings. His non-fictional *Anticipations of the Reaction of Mechanical and Scientific Progress upon Human Life and Thought* (1901) diagnoses the entire social organism as suffering from a form of digestive malfunction, a diagnosis to which Wells returns in his novels *Tono-Bungay* (1909) and *The History of Mr Polly*. In all three texts, Wells engages directly with the theories of digestive health propounded by writers like Fletcher and Arbuthnot Lane – theories based (as we shall see) on the work of Elie Metchnikoff. While they differed on how to treat the condition, Metchnikoff, Fletcher and Arbuthnot Lane were agreed on the causes of indigestion and in emphasizing the dangers it posed to the sufferer. In *Anticipations*, *Tono-Bungay* and *The History of Mr Polly* Wells explores how much more severe might be the dangers posed when it is an entire social system that is suffering from a digestive crisis – and how such a crisis could possibly be cured. For it is no exaggeration to state that in these three texts Wells presents the condition of England as one of indigestion.

#### The Dyspeptic Social Organism in *Anticipations*

The most controversial chapters of H. G. Wells's *Anticipations of the Reaction of Mechanical and Scientific Progress upon Human Life and Thought* (1901) were – and have remained – those in which Wells discusses the threat to the social order embodied by the growing mass of the poor. This social order is repeatedly figured as a body or organism, as when Wells claims that:

Correlated with the sudden development of mechanical forces that first began to be socially perceptible in the middle eighteenth century, has been the appearance of great masses of population, having quite novel functions and relations in the social body.<sup>9</sup>

Wells briefly considers 'the shareholding class' (71) and 'the people who live upon ground rents' (72), before moving quickly on to a social grouping who engage his attention far more extensively: the unemployed poor. For while the shareholder and *rentier* classes perform a 'novel' if unproductive function in the social body, the growing mass of the poor performs no function except to imperil its survival.

The new poor are the result of the processes of technological progress, Wells argues. He expresses this assertion, however, in terms of a biological process:

All over the world, as the railway network has spread, [...] the commencement of the new movement has been marked at once by the appearance of this bulky irremovable excretion, the appearance of these gall stones of vicious, helpless and pauper masses. (80-1)

<sup>9</sup> H. G. Wells, *Anticipations of the Reaction of Mechanical and Scientific Progress upon Human Life and Thought* (London: Chapman and Hall, 1902), 66. All subsequent page references are to this edition.

The masses are, in other words, elements that the social body has proved incapable of either incorporating or eliminating. That Wells explicitly compares the poor to gall stones and compacted faecal matter has provoked considerable negative comment.<sup>10</sup> In the light of Wells's suggestion in the final chapter of *Anticipations* that in a properly-ordered future 'World State of capable rational men' (280) the 'euthanasia of the weak and sensual' would come to seem both 'possible' and 'permissible' (308), the *Daily Telegraph's* review of *Anticipations* drew the quite reasonable conclusion that Wells was advocating 'such extreme doctrines as the lethal chamber for the criminal and the lunatic' and recommending 'the suicide of the melancholic, diseased or helpless persons'.<sup>11</sup> While Steven McLean charitably suggests that Wells's remarks in *Anticipations* should be read ironically, as a satirical 'response to the fears of his contemporary moment,' this an irony that successive generations of readers have succeeded in missing.<sup>12</sup> Perhaps Wells is punning on different ways of interpreting the phrase 'human waste'?

More convincing is McLean's identification of *Anticipations* as a Wellsian adaptation and elaboration of Herbert Spencer's attempts to apply evolutionary models to human society. A polymath whose areas of interest included biology, sociology and political philosophy, Herbert Spencer (1820-1903) had first formulated the phrase 'the survival of the fittest' (in 1864's *Principles of Biology*) and persuaded Charles Darwin to incorporate it into the sixth edition of *The Origin of the Species*. When Wells asserts in *Anticipations* that 'man is the creature of a struggle for existence, incurably egoistic and aggressive' (220) he is writing in an explicitly Spencerian idiom.<sup>13</sup> McLean also identifies Wells's repeated use of the phrase 'the social organism' as a reference to Spencer's essay 'The Social Organism' (1860), which treats the interrelated elements of society as organs, each contributing to the welfare of the social body as a whole. William Greenslade too notes this influence, and criticises Wells on the grounds that 'his analogy between the human and political body is not only highly traditional but manifestly unscientific – Wells here exchanges a Darwinian natural selection for a flawed Spencerian organicism.'<sup>14</sup> Indeed, by the early twentieth century this analogy had become a commonplace of eugenic discourse – but what neither McLean nor Greenslade explore is the relationship between Wells's specifically digestive imagery and contemporary understandings of indigestion. For if Wells's social organism is borrowed from Spencer and eugenics, the terms in which he diagnoses its ills are borrowed from Elie Metchnikoff – whose theories regarding digestion informed the work of both Horace Fletcher and Sir William Arbuthnot Lane. Wells

<sup>10</sup> For a fuller account of early critical responses to *Anticipations* see John S. Partington, *Building Cosmopolis: The Political Thought of H. G. Wells* (Aldershot: Ashgate, 2003), 53-4.

<sup>11</sup> Unsigned review, *Daily Telegraph* (14 November 1901), 11. Cited in Steven McLean, *The Early Fiction of H. G. Wells: Fantasies of Science* (London: Palgrave Macmillan, 2009), 141. The *Telegraph* reviewer is responding to the appearance of *Anticipations* in serial form.

<sup>12</sup> McLean, 141.

<sup>13</sup> As William Greenslade notes in *Degeneration, Culture and the Novel 1880-1940* (Cambridge: Cambridge University Press, 1994), 36.

<sup>14</sup> Greenslade, 196.

is not simply being 'unscientific', as Greenslade suggests. Rather than being carried away by his own metaphor, Wells is bringing to bear on Spencer's pseudo-scientific social organism contemporary scientific understandings of the workings of the digestive processes.

Born in the Ukraine in 1845, Elie Metchnikoff was appointed Professor of Zoology and Comparative Anatomy at the University of Odessa in 1870. Alongside zoology and comparative anatomy, Metchnikoff's areas of research included embryology, pathology and bacteriology, but it is his work in the area of immunology for which he is best remembered – and for which he was awarded the Nobel Prize in 1908. Metchnikoff left Russia in 1881, and it was while undertaking research on the digestive function in starfish in Sicily two years later that Metchnikoff formulated his ground-breaking theory of active host resistance to infection. Metchnikoff was the first to propose and demonstrate that the body possesses specialised cells which absorb harmful foreign particles, bacteria, and the body's own dead and dying cells. Karl Claus at the University of Vienna proposed the term 'phagocyte' – from the Greek 'phagos' (to eat) and 'cyte' (cell) – to describe these cells. In 1888 Metchnikoff was appointed to a post at the Pasteur Institute in Paris, working with Louis Pasteur until Pasteur's death in 1895 and eventually rising to the position of Institute director. By the 1890s Metchnikoff was a 'celebrated and well-known biologist', but it would be his writing of the following decade that would bring him fame far beyond the scientific community – and it is these writings to which Wells primarily alludes in *Anticipations*, *Tono-Bungay* and *The History of Mr Polly*.<sup>15</sup>

In *La vie humaine* (1901) and *Études sur la nature humaine* (1904) Metchnikoff turned his attention to the ageing processes in the human body – processes in which he claimed the digestive system played a central role. *La vie humaine* was translated into English as *The Nature of Man* in 1903, *Études sur la nature humaine* as *The Prolongation of Life* in 1907. In both works, Metchnikoff argues that 'the presence of a large intestine in the human body is the cause of a series of misfortunes.'<sup>16</sup> 'The organ is the seat of many grave diseases,' Metchnikoff warns, notably dysentery although 'malignant tumours' also 'seem to display a predilection for this region of the digestive tract'.<sup>17</sup> These are not the only ways in which our own large intestines are conspiring against us. Metchnikoff writes that:

The large intestine is the reservoir of the waste of the digestive processes, and this waste stagnates long enough to putrefy. The products of putrefaction are harmful. When faecal matter is allowed to remain in the intestine, as in cases of constipation, a common complaint, certain products

<sup>15</sup> Alfred I. Tauber and Leon Chernyak, *Metchnikoff and the Origins of Immunology* (Oxford: Oxford University Press, 1991), 4.

<sup>16</sup> Elie Metchnikoff, *The Nature of Man: Studies in Optimistic Philosophy*, trans. P. Chalmers Mitchell (London/New York: Heinemann/Putnam, 1903), 73.

<sup>17</sup> Metchnikoff, *The Nature of Man*, 73.



are absorbed by the organism and produce poisoning, often of a serious nature.<sup>18</sup>

Metchnikoff argues that the effects of this self-poisoning are then worsened by the action of 'the phagocytes, which in mounting a scavenging attack cause further tissue damage that might not be repaired. The result is bodily deterioration.'<sup>19</sup> Metchnikoff goes on to claim that almost all the unwelcome mental and physical effects of ageing, including the whitening of the hair, are caused by the presence of stagnating digestive waste in the large intestine. He offers extensive literary and folkloric examples of extreme longevity - including such Biblical figures as Methuselah - and suggests that changes in diet can considerably extend the average lifespan and defer or avert the negative effects of ageing.

It is clear from Wells's enthusiastic review of the first English translation of *La vie humaine* in October 1903 that he was already familiar with Metchnikoff's work. Writing in *The Speaker*, Wells praises P. Chalmers Mitchell's translation for avoiding 'interventions and expurgations' with regard to Metchnikoff's original text, but regrets 'one unfortunate substitution of "impossible" for "possible" on p.252, and the use of "intoxication" for "poisoning" throughout the text.'<sup>20</sup> Wells' review pays tribute to Metchnikoff's 'greatness', placing him among 'the very foremost' of the 'generation of biologists who were students in the splendid prime of Darwin, Huxley and Pasteur'.<sup>21</sup> Furthermore, Wells asserts, 'Professor Metchnikoff's surprising and suggestive treatment of senility as a universal but curable disease' and his 'exposition of the large intestine as a sort of death-organ in man' are both 'extraordinarily convincing'.<sup>22</sup> Indeed, so alarmed is the narrator of Wells's *A Modern Utopia* (1905) by the dangers of auto-intoxication that he considers having himself 'Metchnikoffed at once and fitted with a clean, good stomach of German silver'.<sup>23</sup>

*The Nature of Man* and *The Prolongation of Life* immediately became key texts for other theorists of auto-intoxication.<sup>24</sup> Like Metchnikoff, these writers believed that matter which accumulated in the large intestine was literally poisoning the rest of the organism. It is auto-intoxication theory which underlies the preoccupation of both Horace Fletcher and Sir William Arbuthnot Lane with digestion and its dangers. Arbuthnot Lane, writing in his capacity as Surgeon to Guy's Hospital and Senior Surgeon to the Great Ormond Street Hospital for Sick Children, emphasizes the potentially life-threatening nature of the self-poisoning process, which results from 'the habitual over-loading of the bowel'.<sup>25</sup> By

<sup>18</sup> Metchnikoff, *The Nature of Man*, 73.

<sup>19</sup> Tauber and Cernyak, 11.

<sup>20</sup> Wells, 'The Philosophy of a Bacteriologist', *The Speaker* (31 October 1903), 112. Over a decade later, Wells would address the theological implications of Metchnikoff's *La vie humaine* at length in *God the Invisible King* (London: Cassell, 1917), 82-91, 171-2.

<sup>21</sup> Wells, 'The Philosophy of a Bacteriologist', 112.

<sup>22</sup> Wells, 'The Philosophy of a Bacteriologist', 113.

<sup>23</sup> H. G. Wells, *A Modern Utopia* (1905), ed. Gregory Claeys and Patrick Parrinder (London: Penguin, 2005), 50.

<sup>24</sup> See Schwartz, 129 ff.

<sup>25</sup> Arbuthnot Lane, 1.

'diminishing the general energy and the respiratory capacity,' Arbuthnot Lane argues, delayed digestive function 'assists in reducing progressively the ability of the several portions of the body to perform their normal functions.'<sup>26</sup> Horace Fletcher, known to his contemporaries as the 'great masticator', advised followers of his diet routine to chew their food until it was reduced to a fine paste, in order to speed its digestive transit through the body and reduce the risk of auto-intoxication. Fletcher's teachings would find a keen follower in Henry James - who would 'Fletcherize' from 1904 to 1910 and enthusiastically attempt to persuade others to do the same.<sup>27</sup> As a close acquaintance of James's throughout the period of his experiments with Fletcherism, Wells no doubt had Fletcher's claims put to him in some detail.

When *Anticipations* diagnoses society as suffering from constipation and gallstones, therefore, Wells is doing so in terms which many of his contemporaries would have recognized and which imply that the masses pose no less grievous a danger to the social organism than disordered digestion poses to the individual. What is troubling about Wells's references to constipated guts and gallstones is that there is some difficulty in establishing whether his (literally) visceral imagery is wholly intended as metaphor. It is in relation to Wells's proposed cure for digestive congestion that this ambiguity becomes most disturbing. In discussing what is to be done, *Anticipations* abandons the digestive imagery entirely and proposes a system of fines and punitive legislation in order to dissuade the poor and unsuitable from incontinent reproduction. As those readers familiar with auto-intoxication theory would have been aware, however, some of the cures being proposed for the malfunctioning of the digestive system were rather more drastic.

The programme of prolonged mastication recommended by Horace Fletcher failed to convince Metchnikoff, who warns that overenthusiastic Fletcherizing could result in 'want of tone in the intestinal wall, from which as much harm may come as from imperfect mastication'.<sup>28</sup> Metchnikoff instead recommends the consumption of 'soured milk prepared by a group of lactic bacteria', specifically in the form of yoghurt, and claims that these friendly bacteria can counter the accumulation of harmful bacteria in the large intestine.<sup>29</sup> It was not Fletcher's championing of extended mastication or Metchnikoff's advocacy of probiotic yoghurt, however, to which Wells's use of the language of auto-intoxication theory in *Anticipations* seemed to some of his critics to hint - as the reference in the *Telegraph* review of *Anticipations* to the 'lethal chamber' emphasises.

The most prominent British proponent of auto-intoxication theory was Sir William Arbuthnot Lane, and his methods for eliminating the threat of posed by the accumulation of matter in the large intestine were considerably more radical

<sup>26</sup> Arbuthnot Lane, 12.

<sup>27</sup> See Tim Armstrong, *Modernism, Technology and the Body: A Cultural Study* (Cambridge: Cambridge University Press, 1998), 43-4.

<sup>28</sup> Elie Metchnikoff, *The Prolongation of Life: Optimistic Studies*, trans. P. Chalmers Mitchell. (London/New York: Heinemann/Putnam, 1907), 159.

<sup>29</sup> Metchnikoff, *The Prolongation of Life*, 182.

and invasive than those of Metchnikoff or Fletcher. During the 1890s Arbuthnot Lane had recommended paraffin as a digestive lubricant (a recommendation he followed himself three times a day), but by 1900 he was publicly advocating an even more extreme solution to the problem of constipation and its repercussions: the surgical removal of the entire colon. This was a procedure he performed on a number of patients as a surgeon at Guy's Hospital, and which he publicised more generally in *The Operative Treatment of Chronic Indigestion* (1904) - published in the same year that he met Metchnikoff in person to discuss their ideas. 'The ideal primary operation would be the removal of the large bowel to the junction with the ileum', Arbuthnot Lane wrote, but since 'the unsatisfactory state of these patients' rendered such extensive action risky, he generally contented himself with 'the removal of the caecum and ascending colon'.<sup>30</sup> Unfortunately, as Hillel Schwartz points out, 'the sole part of the colon involved in feelings of constipation (the sigmoid) was the sole part Lane did not remove' - not to mention the fact that his operations had a twenty-four percent mortality rate.<sup>31</sup>

Wells's startling use of autointoxicationist imagery appears to advocate a similarly forceful response to the threat facing the social organism. Tellingly, when Wells returns to and reformulates many of the concerns raised in *Anticipations* three years later in *A Modern Utopia*, he feels compelled to insist that there will be 'no killing, no lethal chambers' in his ideal projected world-state - carefully distancing himself from the 'extreme doctrines' the *Daily Telegraph* had accused him of promoting in his earlier work.<sup>32</sup> But if there are to be no lethal chambers, how is the social organism to rid itself of those vicious pauper masses? In *A Modern Utopia* Wells drops the references to gallstones and compacted faeces, but the implications that underlay such imagery in *Anticipations* are made even more explicit. Utopia 'must resort to a kind of social surgery,' Wells writes: 'Idiots', 'lunatics', 'incompetent people', 'drunkards', 'drug-takers' and so forth are to be banished to remote islands.<sup>33</sup> While Wells's social diagnosis is no longer made in terms of autointoxication theory his proposed cure might have seemed strangely familiar to Sir William Arbuthnot Lane.

### **The Happy Phagocyte: Tono-Bungay and Autointoxication Theory**

Whereas *Anticipations* plays dangerous games with autointoxication theory, in *Tono-Bungay* Wells turns his attention to the epidemic of patent medicines and health tonics offering relief from digestive discomfort. Largely ineffective but heavily advertised, such products appear in Wells's fiction not so much as a solution to the nation's malaise but as one of its symptoms. The patent medicine which gives Wells's novel its title is far from 'the secret of vigour' its

<sup>30</sup> Arbuthnot Lane, 12.

<sup>31</sup> Schwartz, 130.

<sup>32</sup> Wells, *A Modern Utopia*, 100.

<sup>33</sup> Wells, *A Modern Utopia*, 99.

advertisements claim it to be.<sup>34</sup> Instead it is 'A mischievous trash, slightly stimulating [...] and insidiously dangerous to people with defective kidneys' (137). Wells's novel follows the rise and fall of the chemist and entrepreneur Edward Ponderevo, inventor of Tono-Bungay, through the eyes of his nephew, the narrator George Ponderevo. Despite his reservations George agrees to work for his uncle, and the success of Tono-Bungay brings them 'wealth, influence, respect, the confidence of endless people' (147).

That the claims made for Tono-Bungay are fraudulent has tended to deflect critical attention from the question of how it is supposed to work. One advertisement, designed by Edward Ponderevo for use during 'an influenza epidemic' (148), describes the supposed effects of Tono-Bungay in terms closely derived from the work of Elie Metchnikoff. An illustration labelled 'The Happy Phagocyte' depicts a smiling cell with a mouthful of bacteria and asks: 'Do you know what a phagocyte is?' (152). 'What Tono-Bungay really is,' the advertisement explains, 'is a sort of Worster [sic] Sauce for the Phagocyte. It gives it an appetite. It makes it a perfect wolf for the Influenza bacillus' (152). As anyone who had read their Metchnikoff would know, even were such claims true, the effect of stimulating the appetite of the phagocytes was unlikely to be beneficial. For Metchnikoff argues that overly aggressive or voracious phagocytes compound and worsen the effects of autointoxication by attacking healthy cells. Even more worryingly, the target market for Tono-Bungay is those already suffering from autointoxication. Tono-Bungay offers its consumers 'vigour', and according to Sir William Arbuthnot Lane a lack of vigour is the first warning sign of self-poisoning. Edward Ponderevo may twist the science of autointoxication theory to his own commercial ends, but the enormous market for Tono-Bungay suggests that Metchnikoff, Fletcher and Arbuthnot Lane were not exaggerating the scale of the problem.

Furthermore, *Tono-Bungay* announces itself in its opening chapter as 'an extensive cross-section of the British social organism' (10) - George later congratulating himself on 'a good piece of comparative social anatomy' (85) - and as in *Anticipations* it is autointoxication theory which provides the terms for this analysis. As a boy, George lives with his mother, a maid at Bladesover House in Kent. Bladesover is a historical throwback, a symbol of an order that has been superseded: 'Grasp indeed that England was all Bladesover two hundred years ago,' George instructs the reader, but also grasp that now 'all the organizing ideas have slackened' (20). There is a pun here in the use of the word 'organize', which carries the primary meaning of 'to order or arrange' but also hints at the words 'organ' and 'organism' - and it is as a disordered social organism, in which cities, institutions and great houses like Bladesover act as compository organs, that George imagines Britain. Like the unhealthy bodies on which Arbuthnot Lane operated, Britain is a body both overfed and at heightened risk of cancer. To George, London seems

<sup>34</sup> H. G. Wells, *Tono-Bungay* (1909), ed. Patrick Parrinder (London: Penguin, 2005), 131. All subsequent page references are to this edition.

'something disproportionately large, something morbidly expanded, without plan or intention'. It possesses 'disproportionate growths, endless streets of undistinguished houses', which suggest 'the unorganized substance of some tumerous growth-process' (102). George returns to this image in the final chapter of *Tono-Bungay*, when he offers a composite portrait of modern Britain: 'Again and again in this book have I written of England as a feudal scheme overtaken by fatty degeneration and stupendous accidents of hypertrophy' (386).

A central tenet of autointoxication theory was that (in Metchnikoff's words): 'very large parts of our alimentary canal must be regarded as useless inheritances, bequeathed to us by our animal ancestors'.<sup>35</sup> Not only is this inheritance 'useless', but it is so ill-adapted to the diet and lifestyle of modern man that it would be better to get rid of it entirely - as Arbuthnot Lane set out to do. While Metchnikoff shied away from such surgical interventions he nevertheless maintains that, 'the organs that were adapted to the mode of life of the animal predecessors of man have become to a large extent superfluous'.<sup>36</sup> While hasty eating and unbalanced diet added to the dangers posed by this internal evolutionary throwback, Metchnikoff denies that under normal conditions humanity's digestive system functions harmoniously. Indeed, by dosing themselves with probiotic yoghurt his followers sought actively to cancel out the harmful activity of the digestive system in the human body, rather than return that system to some original balanced state. Metchnikoff, Wells observes in his 1903 review of *The Nature of Man*, 'sweeps aside with all the decision of authority and all the persuasiveness of ordered knowledge any belief in an ideal state of health'.<sup>37</sup> 'There is no health in us,' Wells explains, and it is 'only by effort, by wisdom and continence' that 'even a sufferable equilibrium may be maintained'.<sup>38</sup> As Tauber and Chernyak point out in their study of his work, 'Metchnikoff established an entirely new vision of the organism, one that arose from a potentially disharmonious evolved self made up of elements that had to be harmonized'.<sup>39</sup>

Strikingly, this is precisely the same conclusion that *Tono-Bungay* reaches concerning the British social organism. George observes that the whole of Kent is made up of 'contiguous Bladesovers', meaning that Britain's urban areas act as 'a well-packed dustbin' in which 'the surplus of population' is left to 'fester' (47). Such towns perform a role, in other words, directly analogous to that of the large intestine in autointoxication theory. Like the human body in *The Nature of Man* and *The Prolongation of Life*, the social organism anatomized in *Tono-Bungay* is an agglomeration of elements, each having served a purpose in some earlier stage of evolution, but many now either useless or actively harmful - producing for example such cancerous tumours as London. The natural state of both the human

<sup>35</sup> Metchnikoff, *The Nature of Man*, 69.

<sup>36</sup> Metchnikoff, *The Nature of Man*, 74.

<sup>37</sup> Wells, 'The Philosophy of a Bacteriologist', 113.

<sup>38</sup> Wells, 'The Philosophy of a Bacteriologist', 113.

<sup>39</sup> Tauber and Chernyak, xv.

body and society as a whole is not, for Metchnikoff and Wells, one of harmony, but one of dangerous disharmony.

How then do Metchnikoff and Wells propose to regulate such bodies? As Tauber and Chernyak note, 'For Metchnikoff, the phagocytes served as the principal harmonizing element'.<sup>40</sup> Travelling throughout the body, they seek out and destroy disruptive non-self elements - at least when they are functioning properly. Wells's position as regards the social organism is intriguingly similar. In *Anticipations* he proposes that the future planning of the world should be entrusted to 'a really functional social body of engineering, managing men, scientifically trained and having common ideals and interests' (84). In *A Modern Utopia* Wells dubs this ruling class the 'Samurai', and almost an entire chapter of the book is dedicated to the question of the selection and the training of this 'voluntary nobility' (174). Like Metchnikoff's phagocytes, the Samurai will regulate the 'undying organism of the World State'.<sup>41</sup> The parallel between Wells's ideas and those of Metchnikoff is strongly hinted in *Anticipations* when the unproductive and disruptive masses are portrayed as:

an integral part of this physiological process of mechanical progress, as inevitable in the social body as are waste matters and disintegrating cells in the body of an active and healthy man. (81-2)

The Samurai are, in effect, half-way between the guardians who regulate Plato's *Republic* and the phagocytes that regulate the human body - and when social surgery is required to save the body politic it is the Samurai who will carry it out. It is in the hands of the Samurai, Wells insists, that the scientifically-planned future of society must rest - if the social organism is to survive at all.

Throughout *A Modern Utopia* the narrator and his companion encounter the Utopian equivalents of their real-world acquaintances, often remarking the productive use to which a properly-ordered society has put those with particular talents wasted or misapplied in the world we know. It is tempting to play a similar game with the characters of *Tono-Bungay*. Could Wells's Modern Utopia find more productive outlets for Edward Ponderovo's energy and creativity? The whole 'story' of *Tono-Bungay*, George Ponderovo suggests, has been one of 'activity, urgency and sterility' (381) and he often reflects on the better uses to which his own capacity for hard work and his 'special aptitude' for scientific research might have been put (275). George ends the novel designing battleships for a foreign navy, a notably destructive use of his abilities, but in a finer world he would surely be a strong candidate for the ranks of the Samurai. The paper will conclude, however, by considering a figure who would be less likely to find himself amongst Utopia's Samurai than amongst those failures in need of elimination: Mr Alfred Polly.

<sup>40</sup> Tauber and Chernyak, xv.

<sup>41</sup> H. G. Wells, *A Modern Utopia*, 65.



### Conclusion: Mr Polly in Utopia

Whereas *Anticipations* and *Tono-Bungay* portray society in terms of a disordered human body, *The History of Mr Polly* depicts Mr Polly's digestive system in terms of social unrest and political crisis: as a civil war, a badly-governed democracy or industrial city and as a rebellious colony. Wells tests his own analogy by reversing it, and lest the point be missed introduces a character into the novel whose only role is to restate the claims about society Wells himself had made in *Anticipations* and *Tono-Bungay*. This unnamed character is a 'certain high-browed, spectacled gentleman living at Highbury, wearing a golden pince-nez, and writing for the most part in the beautiful library of the Climax Club' (121). This 'gifted if unpleasant contemporary' (123) of Mr Polly is described as a 'dome-headed monster of intellect' (122) – but his arguments would have fitted seamlessly into Wells's own writings.

The high-browed gentleman of Highbury would, we are told, categorize Mr Polly as part of the 'Mass' (122). This writer shares with Wells the 'fixed idea that something called a "collective" intelligence is wanted in the world,' and warns that:

A rapidly complicating society [...] which, as a whole, declines to contemplate its future or face the intricate problems of its organization, is in exactly the position of a man who takes no thought of exercise or dietary regimen [...]. It accumulates useless and aimless lives, as a man accumulates fat and morbid products in his blood. (122)

Of shopkeepers like Mr Polly he writes that: 'Essentially their lives are failures, not the sharp and tragic failure of the labourer who gets out of work and starves, but a slow, chronic process of consecutive small losses' (123). This is an uncharitable but honest summary of Mr Polly's career in commerce, which ends with him burning down his own shop with paraffin and then attempting unsuccessfully to slit his own throat. Given that Mr Polly has been described as a 'morbid product' within the social organism, we might even wonder if it is a coincidence that paraffin and the knife were the cures Sir William Arbuthnot Lane applied to cases of autointoxication.

'It is only too clear,' John Carey points out, 'that "the great useless masses of people" who are to be swept away by Wells's New Republicans will include confused, ignorant, common, unambitious little types like Mr Polly.'<sup>42</sup> This is only too clear, we might further note, because Wells goes out of his way to make it so. For Carey it is Wells's 'imaginative duplicity' on which depends his 'greatness as writer'.<sup>43</sup> This 'imaginative duplicity' allows *The History of Mr Polly* both to dismiss Mr Polly as 'one of those ill-adjusted units that abound in a society that has failed to develop a collective intelligence' (45) and to recount his life story at

<sup>42</sup> John Carey, *The Intellectuals and the Masses: Pride and Prejudice among the Literary Intelligentsia 1880-1939* (London: Faber and Faber, 1992), 147. Carey's quotation is from *Anticipations*, 211-2.

<sup>43</sup> Carey, 135.

length and in detail in a novel Wells himself would later describe as 'warm with a pervading affection' for its central protagonist.<sup>44</sup> But if this apparent internal contradiction within the text is an act of 'imaginative duplicity' who is supposedly being duped? Wells himself is fully aware that the social programme he proposes in *Anticipations* may seem incongruous with his fictional practice in *The History of Mr Polly*. By incorporating the arguments and discomfiting language of his earlier non-fiction into the novel he makes this incongruity starkly obvious. There is, however, another oddity in how *The History of Mr Polly* examines the relationship between the individual and society – and it is an oddity that is far less immediately apparent.

In *Anticipations* and *Tono-Bungay*, Wells portrays the dyspeptic social organism in terms of autointoxication theory in order to suggest that the radical solutions some writers proposed in response to cases of individual self-poisoning might be applied on a national and even global scale. In *The History of Mr Polly* this analogy is reversed, with Mr Polly's digestive system described in terms of social unrest. But it is not probiotic yoghurt, prolonged mastication or surgery which solve Mr Polly's digestive problems. After his successful attempt at arson and unsuccessful attempt at suicide, Mr Polly abandons his wife and runs off. Finding a job as boatman and odd-job man at the Potwell Inn, a life of outdoor work and 'wholesome food' (195) in a pastoral setting restores his digestive tranquillity. That this cure for indigestion is entirely at odds with the precepts of autointoxication theory hardly needs emphasis. Metchnikoff, Fletcher and Arbuthnot Lane all agree that the natural state of the human digestive system is not one of healthy and harmonious functioning, but a dangerous legacy of the evolutionary process. The techniques they recommend in order to combat indigestion are not intended to restore the organs of digestion to an original condition, but to intervene in and improve upon a flawed and badly-organised system. A diet of hearty pub grub at the Potwell Inn is very far from the course of treatment that any of these writers would recommend for a case of dyspepsia as severe as Mr Polly's.

Even stranger is the contrast between the extended and rapturous celebration of the bucolic charms of life at the Potwell Inn offered by the final chapter of *The History of Mr Polly* – 'It was as if everything lay securely within a great, warm, friendly globe of crystal sky' (206) – and the social programme laid out in *A Modern Utopia*, which mocks the pastoral utopias of earlier writers at length, dedicating its entire fourth chapter to a debunking of the rural idylls of William Morris's *New From Nowhere* (1890). Yet it is in just such an idealised rustic setting that Mr Polly finds his ease.

Indigestion cured without medical intervention; Utopia achieved without the need of samurai or the elimination of the masses. It could certainly be argued that in *The History of Mr Polly* Wells looks back upon and ridicules the ways in which his texts of the previous decade attempt to analyse the social organism in

<sup>44</sup> H. G. Wells, 'Preface to Volume XVII of the Atlantic Edition', *The History of Mr Polly*, 3.

auto-intoxicationist terms. Ideas expressed in all apparent sincerity in *Anticipations* are attributed in *The History of Mr Polly* to an 'unpleasant' Highbury intellectual – and just to add insult to injury Wells also lends him the enormous forehead of the Fabian Society's Sidney Webb.<sup>45</sup> In this reading of *The History of Mr Polly*, the conflict between Wells's priggish programme of social reform and his affection for his fictional characters has been resolved in favour of the plucky little shopkeepers. The radical (even murderous) intervention required to save the social organism from self-poisoning is reduced to the mock-heroic unseen battles taking place inside Mr Polly – conflicts which are resolved by a dose of fresh air and exercise. Rather than facing literal elimination, Mr Polly ceases to exist in a legal sense only – when he is officially declared dead in a bureaucratic mix-up (203).

What such a reading ignores, however, is that even while Wells seems to poke fun at his own ideas, *The History of Mr Polly* is discreetly carrying out the social programme regarding society's failures first put forward in *Anticipations*. *A Modern Utopia* makes it clear that the islands to which society's failures are to be banished need not be unpleasant places. In fact, there is no reason why they should not resemble the rural idyll in which Mr Polly finds himself...

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<sup>45</sup> See John Sutherland, 'Introduction', *The History of Mr Polly*, xiii-xxix (xxii).