**From Technician’s Extravaganza to Logical Fantasy: Science and Society in John Wyndham’s Post-War Fiction, 1951-1960**

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This article argues that John Wyndham’s post-war novels represent a sustained attempt to analyse and problematize the relationship between knowledge, expertise and society. Wyndham held vigorous opinions on the critical role that science fiction could and should play in modernity, even as his novels dissected the ultimate unsustainability of industrial urban democracies. He believed that it was the role of the SF writer to show that the pace and path of scientific and technological developments were not pre-determined, but potentially subject to collective decision-making regarding the human future. This article explores Wyndham’s depiction of ‘experts’ and ‘amateurs’ in the context of his deployment of scientific and social-scientific concepts as he analysed prospective futures, and argues that aspects of SF can be understood as practical STS or applied history of science, firmly situated in an affective moral context.

John Wyndham is best known today for the novels that he published between 1951 and 1960. These books – *Day of the Triffids* (1951), *The Kraken Wakes* (1953), *The Chrysalids* ( 1955), *The Midwich Cuckoos* (1957) and *The Trouble with Lichen* (1960) – are today marketed as ‘science fiction’, a category vehemently rejected by Wyndham in his lifetime as a ‘repellent label’ and a ‘repulsive term’.[[1]](#footnote-1) The settings of his novels range from a ‘typical’ rural English village of the 1950s to a post-apocalyptic North American landscape, and his characters include such diverse figures as professional ingénues, feminist biologists, army colonels, working-class intellectuals and professors of geography. But what his stories all have in common is their ultimate concern with the role that knowledge and expertise should play in the shaping, maintenance and (potentially) dissolution of society.

Wyndham published *The Day of the Triffids* in 1951, a dozen years before prospective Prime Minister Harold Wilson told Britain that her future prosperity depended on forging a new nation in the ‘white heat’ of a new ‘scientific revolution’. But in his work, Wyndham was already tracing out the likely consequences of this emergence of science into public life, the impact that this immensely powerful way of engaging with and manipulating the natural world would have on society, and its implications for political and cultural governance. What is particularly interesting about what Wyndham was doing, however, is the way in which he was not just analysing and subverting the (often contradictory) attitudes of different classes of British citizens to knowledge and expertise, but also actively enlisting these attitudes in support of his imagined futures.[[2]](#footnote-2) Long before there were professors of sociology at British universities, Wyndham, a professional writer of fiction, was doing critical social science, in which he used his amateur status to lend weight to his implicit and explicit critique of the tragic flaws at the heart of the society and culture in which he lived. This article will examine Wyndham’s work from two different angles. In the first place, it will consider how images of the expert, the scientist, or the intellectual are deployed in his novels. In the second, it will look at how these notions of expertise, together with his understanding of biological science and evolutionary change, relate to his examination of the modern, industrial, consumerist society, and his analysis of its’ tragic flaws. It will show how Wyndham uses the figure of the amateur as his significant agent, with all the commitment of disinterested passion that this connotes, and how that then can be used to reflect on Wyndham’s own status as an exponent of critical social science – or perhaps applied history of science?[[3]](#footnote-3)

*John Wyndham, ‘science fiction’ and logical fantasy*

John Wyndham, or to give him his full name, John Wyndham Parkes Lucas Beynon Harries (1903-1969) was born in Warwickshire in 1903 and by the early 1930s was an established contributor to the American ‘pulp’ magazines.[[4]](#footnote-4) Spending the war initially as a Ministry of Information censor before – like Sleigh and White’s SF fans – joining the Royal Corps of Signals, he returned to writing in peacetime, using the pen-name of ‘John Wyndham’ for the first time with *Triffids*. Eventually, ‘John Wyndham’ was to be responsible for nine novels, two appearing posthumously. Oddly, Wyndham’s work, regardless of what name it appeared under, has received relatively little critical attention, and what there is of it is often surprisingly cursory or patronisingly dismissive.[[5]](#footnote-5) It is not easy to explain this. *The* *Day of the Triffids* has never been out of print, and has been adapted numerous times for radio, television and film, as have the other three of his most well-known post-war books -  *Kraken, Chrysalids* and *Cuckoos*.[[6]](#footnote-6) Perhaps the popularity of his work itself partly explains the relative dearth of sustained critical attention.[[7]](#footnote-7) But – and this is also partly due to the enthusiasm with which his work has been adapted for other media – there are serious discrepancies between Wyndham’s public image and the actual contents of his novels. Consider this: the name ‘Wyndham’ conjures, for most people, lurid images of interplanetary invasion – lurching triffids, lurking sea-monster xenobathites, cloned Children with Svengali-like powers of telepathic control.[[8]](#footnote-8) Staples, one would have thought, of the worst kind of pulp science fiction – in fact the kind of hackneyed ‘space opera’ that Wyndham himself condemned so vigorously, as we will shortly see.[[9]](#footnote-9) But Wyndham intended his stories, not to terrify or to titillate his audiences, but to make them thoughtful. He aimed, in short, to illustrate the logical and predictable consequences of the political, social and scientific trends that he identified in the world of the 1950s.

Wyndham was deeply concerned with science fiction’s social responsibilities, revisiting the topic in numerous talks and articles in which he discussed the form, meaning and function of the genre. Frequently, he used a definition which he attributed to Edmund Crispin – that ‘a science fiction story is one which presupposes a technology, or an effect of technology, or a disturbance of the natural order, such as humanity, up to the time of writing, has not in actual fact experienced.’[[10]](#footnote-10) But that was just the beginning of Wyndham’s broader analysis of his preferred mode of literary expression. Wyndham usually divided SF into four categories. There was the ‘technician’s extravaganza’, primarily written by scientists for scientists, deriving initially from Verne, often using impenetrable language, and wholly unconcerned with the social implications of the technologies described. There were ‘cowboys in space’, produced by hacks who’d realised that that ray guns could easily replace six shooters, and were running ‘amok’, with ‘all the joy of settlers perceiving a site for a new dustbowl.’[[11]](#footnote-11) Even worse, there were the Hollywood ‘B-movies’, ‘slipshod stuff’ that ignored rationality and reason in favour of schlock and horror, demonstrating nothing but ‘contempt for [their] audience.’[[12]](#footnote-12) Of most significance, though, were the ‘speculative stories’ – exemplified by the early work of H G Wells, but including authors like George Bernard Shaw and Nevile Shute, as well as George Orwell and Aldous Huxley, where the focus of the story was the exploration of the impact that new technologies had on the lives lived by ordinary people. These four categories, Wyndham argued, were united only by setting and stage props – and should never have been given the same name. ‘Science fiction’ had, he insisted, emerged in 1920 as a ‘trade term coined by publishers’ distributors’ to aid them in ‘sorting bundles of paper.’[[13]](#footnote-13) As such, it posed no problems. But when it was used as a literary category to describe material ‘as diverse as the first chapter of Genesis, the works of Edgar Rice Burroughs, the Book of Revelation, Quartermass, the fantasies of JRR Tolkien, 1984 and the adventures of Superman’, it became a positive hindrance in public life.[[14]](#footnote-14)

Fundamentally, he felt that the term ‘science fiction’ was hopelessly contaminated by the dross contained in ‘space opera’ and ‘B-movies’ which had driven the genre ‘so deep in the wilderness for so long that writers of ability have worked in more financially and reputably profitable fields.’[[15]](#footnote-15) This mattered tremendously to Wyndham. Positioning himself explicitly in the Wellsian tradition of ‘speculative stories’, he honed in on the fact that his predecessor – like himself – had been born into a world undergoing rapid social and technological change. Wells, he stressed, saw the ‘need for decisions in order to avoid the traps and dangers he could perceive waiting ahead’ – so that ‘people should not be surprised into accepting every novelty at its face value nor in its first form.’[[16]](#footnote-16) That is to say, ‘by working out logically the *likely* results of new inventions and the *likely* results of current trends’, their audiences would be empowered to make decisions about how technology and society could be mutually accommodated. Novels, he argued, were the best format in which to do this, both for reasons of space and publishing practice. Magazines, with their need to maintain circulation, were vulnerable to causing offence: imagine, he suggested, the fate of a writer who speculated that the horseless carriage might lead to less churchgoing. They – and the magazine in which they publish, ‘immediately achieve the reputation of being … dangerously anti-religious’ and a potential target for moral panics and campaigns.[[17]](#footnote-17) Magazine SF, for Wyndham, thus tended to retain its Verne-like fascination with gadgets and gangsters: in contrast, a novelist was far freer to speculate on the wider social and moral consequences of scientific discoveries and technological innovation.[[18]](#footnote-18)

For this reason as well, Wyndham was relatively cavalier about the need for scientific accuracy – as opposed to consistency – in his novels. In two non-fiction pieces written in 1954, while he acknowledged the need for ‘a slight smattering of elementary science (which we ought to have from our schooldays)’, he counterposed this basic requirement with the following question: ‘If you were a publisher anxious to publish a first-class detective story, would you commission it from an eminent policeman – or from an accomplished writer?’[[19]](#footnote-19) Speculative stories, for Wyndham, primarily needed ‘careful, conscientious deduction and attention to logical probability’: they were the product of ‘speculative induction… carefully moulded with scientific reasoning, logical deductions, extrapolations, forecasts, prophecies and probabilities.’[[20]](#footnote-20) As ‘an exercise of the imagination within known limits’, they had to play by the rules, and while one could not fly in the face of scientific fact, one could, and should, extrapolate imaginatively on the basis of different interpretations of these facts.[[21]](#footnote-21) It absolutely did not matter whether a writer got their science, or indeed, their predictions, right. Instead, what mattered was *the act of making them*, of forcing people to confront the fact that they lived in a world that was both underpinned and undermined by technological innovations.

Critically important, however, was the fact that, as the product of an age which took as ‘axiomatic man’s power to alter his environment’, science fiction had responsibilities that went beyond mere scientific accuracy.[[22]](#footnote-22) On several occasions, both in his fiction and non-fiction, Wyndham made trenchant criticisms of the social and ethical recklessness of scientists. Writing as John Beynon in 1939, he wondered sarcastically why anyone would ever ‘need to use that hoary old standby, the mad scientist … when the reputedly sane scientists are quite efficiently getting on with the job of world destruction before our eyes.’[[23]](#footnote-23) In another piece, that remained unpublished, he angrily described the twentieth century as ‘built by the scientists’ brains, to be blown to bits by their morals.’[[24]](#footnote-24) This sentiment is present – in a more controlled fashion – throughout Wyndham’s novels, directed not only at scientists, but also at experts more generally. His ‘logical fantasies’, exploring the logical and predictable consequences of the political, social and scientific trends that he identified in the post-war world, contain a sustained critique of the incapacity of acknowledged experts and recognised intellectuals to either recognise or respond to threats to human survival. Ordinary people are forced to do the best they can with the skills they have, and success, if it comes at all, is achieved only where individuals are able to apply their knowledge and ability in a different kind of context – where individuals, even if they are professionals, are acting as amateurs. This is, of course, exactly what Wyndham himself is doing, actively applying and deploying his own amateur understanding of expert scientific and sociological knowledge as he – a professional writer – constructs his imagined futures.

Crucially, despite his reputation as the master of the alien invasion story, his books avoid the exotic or the spectacular[[25]](#footnote-25). Wyndham’s horror – for these ‘cozy catastrophes’ *are* horrifying in the way in which they calmly lay out the minutiae of the apocalypse of a mundane world – lies, not in the promise of monsters, but in the inability of modern society to react appropriately to threats to its security, or to consider the extent to which unchecked scientific and economic developments endangers its survival. The triffids, to take the example for which Wyndham is probably most famous, are clearly the unanticipated, though not unpredictable, products of unregulated and unrestricted attempts to manipulate our biological and physical environment in an era of political instability. But what makes Wyndham interesting, both as a writer in his own right and as an example of the complex interplay between knowledge, literature and society, is that the ultimate sources of catastrophes and social collapse are not alien, but entirely human. More, they are not the result of the actions of an individual ‘mad (or sane) scientist’, but are fundamentally social in their origins.

In each of his ‘cozy catastrophes’, an industrialised, consumerist civilisation creates the scientific conditions for its own downfall. War, pestilence, famine and floods may decimate the human population, but these are merely acute symptoms of an underlying and chronic malaise. They are the logical consequences of human self-confidence and an unimaginative certainty that ‘bad things can’t happen to us’, a certainty that derives in no small part from one of the key themes uniting Wyndham’s novels. This theme is the prevalent and persisting assumption that knowledge – or civilisation, signified by its most powerful creation, the city – has defeated nature. In none of these novels will the downfall of humanity arise ultimately from an alien threat: in each, the danger is to be found in taking it as ‘axiomatic man’s power to alter his environment’, in presuming that biological and environmental processes are under expert control.[[26]](#footnote-26) This is brought home sharply in ‘John Wyndham’s very first, and perhaps most famous, account of how modernity creates its own conclusions.

*‘We brought this lot down on ourselves’[[27]](#footnote-27)*

The abiding image that most people have of *The Day of the Triffids* is one of invading plants from outer space, who conquer humanity by first blinding them and then – ultimate humiliation for creatures who consider themselves to be the peak of the food chain – eating them. But as Bill Masen, the book’s narrator, crisply points out, this is ‘nonsense.’[[28]](#footnote-28) Triffids were, instead, bred behind the Iron Curtain. The biologists of the USSR, as desperate as the capitalists to turn infertile soil to agriculture and to maximise the production of oil – in particular, edible oils – had ‘under a man called Lysenko’, broken with the methods and theories of the West, and while the ‘lines it had taken were unknown, and thought to be unsound … it was anybody’s guess whether very successful, very silly or very queer things were happening there.’[[29]](#footnote-29) A box of triffid seeds is smuggled out by a man in the pay of a capitalist oil company: an act of industrial, rather than political espionage, necessitated by the fact that triffid oil will drastically undercut vested and invested financial interests. However, the seeds never arrive at their destination. Masen’s conclusion is that the plane must have been blown to bits in the upper atmosphere, high over the Pacific – since that is the best explanation of how a plant ‘intended to be kept secret, could come, quite suddenly, to be found in almost every part of the world.’[[30]](#footnote-30) Triffids did not just appear – they were selectively bred to feed the world’s hunger for oil and food in the context of fierce economic, scientific – and military – competition between two great superpowers.[[31]](#footnote-31)

The military context here is important because the triffids, of course, are only half the story. As the novel opens, Bill Masen is waking in hospital, eyes bandaged in the hope of saving his sight from a triffid sting – and although an astonishingly high proportion of triffid victims *have* been blinded by triffid poison, Masen’s sight is saved. Not so the rest of the world, who woke on that morning to find themselves blind. But despite the triffids’ predilection for attacking human eyes, it was not the triffids who were responsible for the mass blinding of the global population:

‘You’ll find in the records that on Tuesday, 7 May, the Earth’s orbit passed through a cloud of comet debris. You can even believe it, if you like – millions did. Maybe it was so … yet, until the thing actually began, nobody had ever heard a word about this supposed comet, or its debris’[[32]](#footnote-32)

Years after the event, Masen’s speculations on the origins of the near-universal blinding lead him to realise that ‘up there, there were – and maybe there still are – unknown numbers of satellite weapons circling round and round the earth … [so] suppose that one type happened to have been constructed especially to emit radiations that our eyes would not stand’?[[33]](#footnote-33) His conclusion? ‘[W]e brought this lot down on ourselves.’[[34]](#footnote-34)

 On this reading, the day of the triffids dawns as the result of the unanticipated consequences of human ecological manipulation. Industrial competition, the state of international geo-politics and technological expertise combine to create an environment in which human civilisation cannot survive, but which triffids are uniquely suited to exploit. They had been bred to be adaptable, to exist in a wide range of habitats: characteristics that mirror those of their only predator – humanity. The ability of humans to farm triffids, however, did not depend on their much-vaunted intelligence – an implicit critique not just of ‘brain-work’ in general, but also of the popular parables of human evolution (Landau, 1997) – but primarily on the brain’s ability to use the eyes to engage directly with the physical world. In a later section, this article will consider the relevance of this point to Wyndham’s understanding and deployment of evolutionary theory in his work. But for now, it is enough to note that, perhaps more so than any of Wyndham’s other novels, the *Day of the Triffids* depends on the depiction of the complex interdependencies, not just within industrial society, but between that society and the ecosystem within which it forms a crucial – but not omnipotent, and not even omniscient – part. As for science, and foreshadowing the post-Chernobyl discussions of science and risk, Wyndham here portrays it as Janus-faced – both the ultimate source of social catastrophe (the triffids and the satellites), and as the only hope for civilisation’s survival.

But the way in which this is described is telling: Masen’s role at the close of the novel will be to ‘get some research going into a method of knocking off triffids scientifically.’[[35]](#footnote-35) It’s not clear exactly what his job is before the book opens – we are told that his father, for whom “the world was divided sharply into desk-men who worked with their brains and non-desk-men who didn’t and got dirty”, is clearly worried by his son’s lack of mathematical ability, but fails to note a talent for biology, which Masen parlays into a career with a company that farms triffids.[[36]](#footnote-36) His position there is vague, but seems more managerial than biological: we are told that he must do a lot of travelling to see how other companies handle their plants. Most tellingly, he is shown consistently deferring to the knowledge of a self-taught colleague whose triffid expertise is based not on qualifications, but the fact that “he had a kind of inspired knack with them.”[[37]](#footnote-37) His colleague’s ‘intuitive’ understanding of the triffids leads him to speculate on the nature of their intelligence, noting that a high proportion of triffid victims had been stung across the eyes and blinded: “they know that the surest way to put a man out of action… Take away our vision, and [our] superiority is gone. Worse than that – our position becomes inferior to theirs because they are adapted to a sightless existence, and we are not.’[[38]](#footnote-38) Thus, the man without formal qualifications approaches the triffids with an open mind and correctly identifies the nature of the threat they pose: Bill, with acknowledged credentials, instead studies how other companies farm their triffids, presumably in the hope of improving profitability. At the end, however, it is Bill’s long-unused skills on which the hope of scientifically eradicating the triffids lies – but he explicitly regrets the loss of Walter’s amateur passions, and the deliberate imprecision with which the prospective work is described (‘knocking off’) connotes the amateur far more than the professional.

*The Boffin’s Lament: Or, The Lay of the Baffled Boffin*

 More generally, there are two very distinct ways in which professional knowledge and expertise are presented in Wyndham’s work, which in some ways resemble the distinction between the technically skilled ‘expert’ and the conceptually-oriented ‘intellectual’.[[39]](#footnote-39) Wyndham presents his readers with two types of scientist – the technician/engineer and the theoretician/philosopher[[40]](#footnote-40). When it comes to the first type – the ‘boffins’ of World War II slang – he shows their ingenuity to be the source of immediate salvation even as it creates the conditions for ultimate disaster. In *Cuckoos*, for example, an Army Colonel complains that he can’t do anything about the potential UFO threat, precisely because of the contribution that scientists were now making to the art of war: ‘Trouble is, for all we know it may be some little trick of our own gone wrong… All those scientist fellers in back rooms ruining the profession… Soldiering’ll soon be nothing but wizards and wires.’[[41]](#footnote-41) The pace of technological development, coupled with the need to maintain national security is shown not just as potentially outstripping the ability of the military to make useful use of novelty, but as a danger to national security.[[42]](#footnote-42) Wyndham’s interest here lies in exploring the extent to which such resourceful expertise can be both enthusiastic and creative – but yet misguided, and often eventually sterile. In particular, his critique is directed at figures who are unable to transcend their training: incapable of realising that the paradigm has shifted and the world has changed, they continue to approach problems in the way that they were originally taught, using methods and concepts that have, unfortunately, already been superseded by events.

 See, for example, Wyndham’s discussion of their activities in *Kraken.* Quite kindly, and with a good deal of wry humour, Wyndham describes the attempts of the boys in the back room to outwit the invading and invisible underwater xenobathites. These creatures have succeeded in banishing humanity from the greater portion of the oceans by repeatedly sinking ships that attempt to cross deep water. Once a defensive weapon has been developed, the Navy sends a rather nervous ship to test it. The events that follow are described verbatim by a young Lieutenant. After ‘the boffins had finished tearing around and testing everything in sight’, they head off to cross a known danger-spot with the submarine missile – a ‘dolphin’ – sailing in front of them. The first of these explodes, the second is lowered, and the ship begins to vibrate. Then, says the Lieutenant, ‘the boffin beside me gave a grunt and whipped back like a streak into a kind of float-off instrument room they had rigged up on deck’. Next, the third dolphin detonates, but before the fourth can be launched, ‘an excited boffin bounced out of the instrument room and ordered the depth-charge-thrower to work’, to no visible effect other than ‘the noise of uproarious boffins slapping one another on the back in the instrument room’. After the fourth dolphin explodes, ‘[t]he boffins, all of them pretty tight by this time, tumbled out on deck to cheer and sing *Steamboat Bill*, and that was about the end of it.’[[43]](#footnote-43) The boffins announce success, and in Churchillian language, the Prime Minister tells the House that the ‘Battle of the Deeps’ has been won. But within a month, it becomes evident that the underwater xenobathites are prepared to wage war on a far broader front than had been hithterto imagined, attacking human civilisation on land as well as at sea. Their sea-tanks begin ‘shrimping’ for people in coastal villages around the world, while at the same time inundating the land by melting the polar ice-caps. Wyndham shows that the boffins’ and the politicians’ overwhelming focus on solving the immediate problem lethally distracts attention, effort and finance from the real issues at stake: they have, in the classic sense, won the battle, but lost the war.

 Part of the problem, as Wyndham describes it, was that the post-war public now expected scientists to solve any problems that the world faced – but to do so while causing a minimum of fuss and hardship for the population in general, and for big business in particular. In fact, a significant portion of *Kraken* is devoted to the difficulties experienced by the boffin in ‘a scientifically minded age’ when the public ascribes astonishing degrees of omnipotence to the ‘boys in the back room’, while still refusing to bow to their judgements.[[44]](#footnote-44) If one set of answers produced unwelcome change, whether conceptual or empirical, the ‘boys’ could always be sent back to produce another set of solutions. As *Kraken*’s narrator ruefully reflects,

‘That the boffins would come through with a complete answer one day was not to be doubted … From what I had been hearing, the general faith in boffins was now somewhat greater than the boffins’ faith in themselves’[[45]](#footnote-45)

The trouble is, as Wyndham shows, that both scientists and the public are incapable of realising the scale of the problems that confront them. Wyndham (through the geographer-prophet Bocker) argues that at the heart of this difficulty lies the impossibility of escaping one’s engrained disciplinary expectations, of getting outside of one’s world-view. Human warfare, Bocker points out, has traditionally depended on the ‘ability to deliver or resist missiles of one kind or another – whereas [the xenobathites] don’t seem to be interested in missiles at all.’[[46]](#footnote-46) His complaint is echoed by the sociologist/philosopher Zellaby in *Cuckoos*, who reflects on the inability, not just of scientists, but of most writers – even H G Wells – to adequately visualise interplanetary war. All their imaginations stretch to is a situation where ‘something descends, and something comes out of it. Within ten minutes … there is coast-to-coast panic, and all highways out of all cites are crammed, in all lanes, by the fleeing populace … while ... a hitherto ignored professor and his daughter, with their rugged young assistant strive like demented midwives to assist the birth of the *dea ex laboritoria* which will save the world at the last moment, minus one.’[[47]](#footnote-47) Wyndham repeatedly shows that this is just human warfare writ large – and represents a profound failure of imagination. To have better science – to protect humanity’s future – we need better forms of imagination.

*Intellect, expertise and the individual*

 In many ways, a decade before Kuhn’s *Structure of Scientific Revolutions* appeared, Wyndham seems to be distinguishing between those individuals who are continuing to try to do ‘normal science’ and those who are capable of realising that there is an entirely different – even incommensurable? – way of apprehending the problem. Wyndham treats the figure of the boffin, the within-paradigm tinkerer, the problem-solver, not just with a degree of ironic amusement, but also as a key symptom of the underlying social malaise: the belief that all problems are solvable from within the dominant worldview, whether that worldview be seen through the lens of the economic, the social or the scientific. Like the boffins, the characters in Wyndham’s work whom are capable of both realising the full nature of the threat and dealing with it are all also in the business of knowledge production and scientific research. But what is notable about them is their capacity to think outside their trained disciplinary expectations and to apply their knowledge and skill in fields not necessarily their own.

It is *Kraken*’s geographer, Bocker, who revolutionises the problem of the ‘Deeps’ by demonstrating that positing the existence of undersea intelligence not only explains all the anomalous events recorded, but enables the prediction of the xenobathites’ next attack. It is also Bocker, rather than any of the military scientist-engineers, or the experts sitting in ‘Technical Committees’, who will figure out a way ultimately to defeat the invaders and save the (remnants of the) human race.[[48]](#footnote-48) For *Midwich*, the figure of Gordon Zellaby dominates, and it is in Zellaby that Wyndham comes closest to describing the classic professorial intellectual. He must be reminded what he does and does not like to eat, speaks with a manner “frequently allusive and often elusive … given to mentioning things *en passant* [so that] you don’t know whether he followed them up with serious deductions, or was simply playing with hypotheses.’[[49]](#footnote-49) He contrasts sharply with the official, government-sanctioned, experts on the Children – a ‘dessicated-looking couple called Freeman [who] were continually lurking and peering about the village, often insinuating themselves into the cottages … generally resented and referred to as the Noseys.’[[50]](#footnote-50) The Freemans’s expert investigations of the Children fail entirely. Instead, it is the vague intellectual Zellaby who is the first to posit the existence of the Children’s telepathy, the first to link this with their capacity for collective action, and if not the *first* to realise the deadly peril they pose to the human race, certainly the person who can face up to the necessary corollary. It is Zellaby’s altruistic suicide (setting off a bomb in the room in which he is instructing and entertaining the Children) that, in this novel, saves civilisation – for the moment.

But Wyndham’s ambivalence to expertise can also be applied to this otherwise praiseworthy ability to think about one’s beliefs, as well as with them. To return to *Triffids* for the moment, this article has already discussed the importance of Walter Lucknow, the self-taught expert on speculative triffid biology who, because he has not been ‘trained’ to ignore what is in front of his eyes, is willing to posit the existence of triffid intelligence.[[51]](#footnote-51) But also worthy of note in this novel is Dr. Vorless, a professor of sociology who tries to convince the surviving sighted that customs are contingent, and where context changes, so must custom - much to their dismay since most of them were ‘accustomed, when [they] encountered this kind of thing to turn the radio off at once.’[[52]](#footnote-52) His speech – the longest in the book – and the radical proposals that he advocates are not convincing to most of his audience, and creates a schism in the surviving community that damages their chances for survival. In relation to both Vorless and *Kraken’s* Bocker, Wyndham seems to be suggesting that thinking the unthinkable, while absolutely necessary, also needs to be carefully managed in relation to pragmatic possibilities.

 But there is also an important connection between this notion of the philosopher-scientist and their willingness to take the extraordinary seriously, and the broader use that Wyndham is making of expert knowledge in his work even as he critiques it. Essentially, Wyndham’s critique of the boffin hinges on one key point – that the boffin can only work within the paradigm with which he (sic) is familiar. When the world changes, he cannot adapt his world view. This question of change, and the elemental importance of adaptability within a changed environment is fundamental to Wyndham’s use of science – and particularly evolutionary science – in the plots of his novels. Consistently, Wyndham argues against teleological views of evolution, notions that were as prevalent in the 1950s as they remain today, with popular accounts in particular implying that the ‘aim’ of evolution was to produce intelligent life, or even more specifically, human life. However, as Wyndham repeatedly emphasised, evolution has no purpose, and evolutionary success is ultimately contingent only on the ‘fit’ between the individual and the local environment. Regardless of how successful an individual is within a given environment, if that environment changes, then the organism must adapt or die – whether it be a dinosaur or a human being. Wyndham’s critique of 1950s society and its potential futures hinges on the fact that knowledge and expertise have made it possible for most members of urban, industrial communities to remain insulated from the global changes in the environment that industrial capitalism is itself making, with all the unforeseen and – globally – tragic consequences that Wyndham spells out.

*One-at-a-times, or think-togethers?*

But before looking in detail at Wyndham’s account of the ultimate tragedy of urbanity, it’s essential to bear in mind this insistence on putting social matters in their ecological context when considering the wider role that scientific expertise plays in Wyndham’s work. Biological theory and evolutionary theory are absolutely vital to the development both of Wyndham’s plots and his wider significance.[[53]](#footnote-53) Wyndham, writing at a time when the neo-Darwinian ‘modern synthesis’ had only recently entered the public domain, and many years prior to the dominance of the ‘selfish-gene’ sociobiological paradigm in biology, allowed his work to reflect some of the key debates that characterised the period’s biological thought: in particular, the relationship between the individual and the group, and the significance of the balance between cooperation and competition in the process of evolutionary change.[[54]](#footnote-54) In the 1950s, group selection – the notion that the group rather than the individual might be the unit of evolutionary change - still retained a good deal of scientific credibility.[[55]](#footnote-55) Additionally, the inter-war work of the Chicago School in the United States, as well as the popular writings of biologists such as David Starr Jordan and Vernon Kellogg in the United States, and Charles Elton and Alister Hardy in the United Kingdom, emphasised the importance of cooperation, rather than competition, in evolution. W C Allee had experimentally demonstrated that creatures that cooperated had greater success than those that competed, when they were placed in hostile environments.[[56]](#footnote-56) Consistently – and increasingly insistently as time went on – Wyndham used this theme of ‘domination through cooperation’ as the driving device behind his plots. It is there in a proto-form with *Triffids*, but emerges into centre stage with *Chrysalids* and *Midwich Cuckoos*.

 In each case, but from a slightly different perspective, Wyndham is emphasising that cooperation is more important than intelligence when it comes to biological success. It’s the sheer number of triffids, not just the blinding of the human population, that enables them to dominate, with key moments in the novel marked by the collective action of the plants. The plots of both *Chrysalids* and *Cuckoos* turn on the threat posed to the rest of society by a small group of c/Children. In both novels, the nature of the threat lies in the capacity of both groups to cooperate far more closely than can ordinary human beings, who are forever isolated by their individual self-interest[[57]](#footnote-57). Similarly, in the posthumous novel, *Web*, the global threat posed by the post-nuclear testing spiders is not posed by their physiology, but by their capacity to act in unison. It might also be noted that the eponymous *Lichen* is (obviously!) the product of a symbiosis between a fungus and an alga. But in each novel, the danger for ordinary, selfish, self-interested human beings lies in the development of this talent for the intensification of cooperation on the part of another group. It is this talent that renders the human brain, usually considered to be apex of evolutionary complexity and success, irrelevant.

*‘As a securely dominant species...’*

 But Wyndham also draws a significant distinction between the biological capacity for change and the intransigent unwieldiness of the human institutions and customs created by that brain. In particular – and ironically, given the characterisation of Wyndham as the creator of ‘cozy catastrophes’ – the contrast is drawn over the injunction not to commit murder versus a willingness to kill in species self-interest. For example, in *Chrysalids*, the children are being hunted by ‘normal’ humans, who have recognised them as mutants, when they are rescued in the nick of time by a team of telepaths from the other side of the world. To the children’s horror, these rescuers then calmly execute their attackers – who include members of the children’s own families. The woman from Sealand reproves them for their unthinking hypocrisy, since ‘to pretend that one can live without [killing] is self-deception … we have to preserve our species against other species that wish to destroy it – or else fail in our trust.’[[58]](#footnote-58) In *Cuckoos*, where (for once) there has been a genuine alien invasion, Wyndham, through Zellaby, is again clear in his identification of our institutions and expectations as the ultimate source of the threat to human life. While musing generally on the role of social expectations in the production of ‘instinctive’ mother-love, Zellaby reaches an abrupt conclusion:

“Each species must strive to survive, and that it will do, by every means in its power, however foul, unless the instinct to survive is weakened by the conflict with another instinct ... odd, don’t you think? We could drown a litter of kittens that is no threat to us – but these creatures we shall carefully rear’[[59]](#footnote-59)

From the other side, the Children are also quite clear on this point – they think that for humans, killing them “is a biological obligation. You cannot afford *not* to kill us, for if you don’t, you are finished.’[[60]](#footnote-60) But they are – rather smugly – aware that English politicians will have great difficulty in convincing their electorate of this elemental need:

“You don’t appear to think very highly of our institutions,’ Bernard put in. The girl shrugged. ‘As a securely dominant species, you could afford to lose touch with reality and amuse yourself with abstractions’”[[61]](#footnote-61)

In many ways, this statement encapsulates the broader argument at the heart of Wyndham’s fiction. Systematically, although subtly, he has questioned the nature of expertise and knowledge in a society ostensibly based on rational analysis and planning, basing his critique on his own (amateur) understanding of scientific and social theories and their intersection. Repeatedly, and ironically, given the persistent popular assumptions about evolution that are still characteristic of the early 21st century, Wyndham reverses the persistent assumption that what is natural is inevitable, while what is cultural is contingent.

Consistently, as this article has shown, the importance and nature of evolutionary change is stressed in his novels. Although to a casual examination, the triffids look like any other plant, telepathic children appear normal at first glance, spiders look like ordinary house arachnids, and there’s little that distinguishes the lichen, the *behaviour* of all of these groups has changed fundamentally, and therein lies the difference and the danger. But while the plasticity of nature is stressed – as the environment changes, so must the organism – the immutability of social institutions and their fatal *inability* to adapt to changed circumstances is continually hammered home. And despite Wyndham’s gentle humour in dealing with his ‘boffins’, his account of the failure of human minds – culture – to adapt to rapidly changing ecological conditions, has a far darker tone, making use of critical social, not just scientific theory.

Wyndham’s critique of expert knowledge is oriented towards the form of instrumental reason that the theorists of the Frankfurt School condemned as characteristic of industrial society, the form of reason that treated the object as a means-to-an-end, rather than an end-in-itself. And here, as did the Frankfurt School, Wyndham shows human beings as subject to such reason and such treatment: not by aliens, but by other humans. *Triffids* showcases satellite weaponry and the triffids themselves as the classic products of instrumental reason, the results of asking not ‘should this be done?’, but ‘can this be done?’. *Kraken* demonstrates the consequences of applying such reasoning to political technologies. Both main protagonists – Mike and Phyllis Watson – are journalists, and as such, are deeply involved with both monitoring and manipulating the public mood as it relates to the potential threat from the xenobathites. Consistently, they find that what they think they ought to do is not what they are permitted to do: truth is a casualty of war, especially when it isn’t in the interests of powerful groups for the state of war to be acknowledged. Fear of public panic combined with entrenched commercial interests are first thrown behind the effort to keep the xenobathites off the front page – as when Mike complains at one point, ‘for the last few months now, not a word about those things down there has gone out from any of our transmitters; the sponsors don’t like it.’[[62]](#footnote-62) The ‘organised scoffing’ that the Establishment has been at pains to build up, however, soon has to be broken down, when the public concludes that it’s Soviets, rather than space-invaders, who are sinking ships. Since war would, in the short term, be even more disruptive of commerce than alien invasion, Mike and Phyllis are then called upon to ‘put in [their] own pennyworth towards stopping the atom bombs falling.’[[63]](#footnote-63)Mike and Phyllis are deeply humane and admirable characters, but they are caught up in a situation in which previous political inaction swiftly transforms their job from ‘the task of persuading the public of the reality of an unseen, indescribable menace [into] one of keeping up morale in the face of a menace which everyone now accepted to the point of panic.’[[64]](#footnote-64) Ordinary people are irrelevant when balanced against wider commercial and political interests: the role of the media is to ensure that, whatever happens, the public sees those interests as identical with their own. Only thus, it appears, can civilisation survive – but it may be a very specific kind of civilisation that thrives in the changed circumstances.

*‘We must have the teachers, the doctors, the leaders...’*

Consistently, Wyndham’s work vividly conveys the contradictions inherent in the specialised division of labour on which civilisation – or at least, industrial democracy – depends. The consequence, after all, of living in a society dependent on expert systems, is that the majority of the population are ignorant of how these systems work.[[65]](#footnote-65) Bill Masen finds it hard to convey to his posterity what his earlier life had looked like:

‘It is not easy to think oneself back to the outlook of those days. We have to be more self-reliant now. But then there was so much routine, things were so interlinked ... Our life had become a complexity of specialists all attending to their own jobs with more or less efficiency, and expecting others to do the same’[[66]](#footnote-66)

The same theme is explored in the other novels: a critique of a division of labour so complex that individuals are ignorant of matters critical to their own survival. But at the same time, the need to maintain civilisation – variously opposed to savagery, feudalism and tribalism – is recognised in relation to the size of the community required to maintain it. Wyndham again pokes gentle fun at the way in which bureaucratic habits – names and addresses required for purposes of ‘system, organisation and relatives’ – are still maintained as the sighted gather at the University, but uses the organic intellectual Coker to point out the hard facts: ‘What we are on now is a road that will take us back and back and back … to savagery… The short cut to save us starting where our ancestors did [is knowledge] … We must have the teacher, the doctor and the leader, and we must be able to support them.’[[67]](#footnote-67) The complex division of labour and expertise is the basis of both instability and security: its breakdown enables Bill to be his ‘own master, and no longer a cog’, but will deprive his children of the chance to make their own choices.[[68]](#footnote-68) For both novels, the only safe way forward is in small communities, large enough to enable some specialisation, but characterised by a kind of Durkheimian mechanical solidarity. Even these can be unstable, as *Chrysalids* shows, should their inhabitants persist in trying to master, rather than adapt to, their environment.

As suggested earlier, each of these novels is ultimately an exploration of civilisation’s relationship with nature mediated through the ambivalence of scientific expertise, whether that be through the ecological hubris of *Triffids[[69]](#footnote-69)*, the inexorable rise of the floods and the ‘attitude of polite patronage towards Nature’, or the presumption that civilised society has evolved beyond matters of biology in *Midwich*.[[70]](#footnote-70) As Zellaby demands, ‘I wonder if a sillier or more ignorant catachresis than ‘Mother Nature’ was ever perpetrated? It is because Nature is ruthless, hideous and cruel beyond belief that it was necessary to invent civilisation.’[[71]](#footnote-71) In all three novels – and as part of this process of exploration – the tendency to assume that the laws of civilisation had replaced the laws of nature is relentlessly attacked. Zellaby talks of returning to the laws of the jungle. Masen looks back on the vanished time when ‘it was easy to mistake habit and custom for natural law.’[[72]](#footnote-72) Watson describes the way in which officials had assumed that ‘London was so cellularly constructed that as the water flowed into each cell it would be abandoned while the rest carried on much as usual.’[[73]](#footnote-73) In reality, of course, when the inhabitants of high ground ‘turned in dismay to save themselves by fighting off the hungry, dispossessed’ flood victims, the law of the jungle again prevailed.[[74]](#footnote-74)

*‘Find a nice, self-sufficient hill-top, and fortify it’*

 Fundamentally, it is the loss of the cities that encapsulates the collapse of civilisation and its experts, and marks the triumph of the natural world.[[75]](#footnote-75) At the end of his first day as a seeing man in the world of the blind, Masen looks out at the London skyline, forcing himself to realise consciously that the city is doomed to the ‘long, slow, inevitable course of decay and collapse.’[[76]](#footnote-76) This ‘necrosis of a great modern city’ is unimaginable to him, so ingrained was the belief ‘that one’s own little time and place was beyond cataclysm’, even though cities have fallen in the past: ‘And now it *was* happening here. Unless there should be some miracle I was looking on the beginning of the end of London.’[[77]](#footnote-77) While the triffids attack humankind directly, the more insidious forces of nature reclaim the context of civilisation: soon, almost ‘every building was beginning to wear a green wig beneath which its roofs would damply rot’, and from being unable to imagine the city’s downfall, Masen is now incapable of remembering what it once was.[[78]](#footnote-78) Mike Watson’s ‘drawn-out story of decay’ is kept deliberately clipped, with brief mentions of visits to Trafalgar Square to watch ‘the water washing around Landseer’s lions’, and second-hand descriptions of New York, again worth quoting at length:

‘A man and a woman on the Empire State Building were describing the scene. The picture they evoked of the towers of Manhatten standing like frozen sentinels in the moonlight while the glittering water lapped at their lower walls was masterly, almost lyrically beautiful – nevertheless, it failed in its purpose. In our minds, we could see those shining towers – they were not sentinels, they were tombstones’[[79]](#footnote-79)

The death of the cities symbolises the ultimate failures of industrial urban civilisation to overcome threat: it demonstrates the critical instability that underlies its apparent vigour.

 This shrinkage of the possibilities inherent in human communities is echoed by the narrowing of each book’s horizons. For both *Triffids* and *Kraken*, the disaster that befalls is a global one, as evidenced by the description of the responses. Specialised weapons for triffid decapitation are developed in the tropics, where triffids are far less domesticated than in the temperate climes: these guns swiftly become essential for individual survival in the West after the mass blindings. The melting of the polar caps is a global peril, though the ‘chief difference was that in the more developed country all available earth-shifting machinery worked day and night, while in the more backward it was sweating thousands of men and women who toiled to raise great levees and walls’.[[80]](#footnote-80) But in both these examples, the sense of being part of a global effort swiftly diminishes. The horizon contracts with agonising suddenness, as London becomes, not a city, but a sudden series of territories, defended by a number of increasingly desperate and ever-diminishing survivors. And in the closing lines of both novels, the narrators hope, not for the defeat of the of the global threat, but that the land, the island, the Britain that has been lost, can eventually be reclaimed.[[81]](#footnote-81)

*Conclusion – Go to the Ant, thou sluggard, and be wise*

 John Wyndham’s novels are firmly of their time and place, but they have a much wider resonance for those engaged with the study of science, technology and society. They were written at the mid-point of the 20th century, in the aftermath of a devastating world war, and in the immediate context of a broadly accepted political commitment to rational, expert planning in the distribution and utilisation of national resources. They are focused on the imagined future of urban, industrialised societies, based on an intricate division of labour that in turn rests on the inter-relationships of expert (technical and bureaucratic) systems. They are directed, in particular, at the form of Western scientific rationality that treats ‘nature’ as something that is capable of being conquered or controlled, and assumes that the consequences of human intervention in complex systems can be predicted and managed. Drawing on established cultural ambivalence to the role and influence of knowledge, whether purveyed by ‘intellectuals’ or ‘experts’, in the making of political, social and economic decisions, Wyndham’s novels vivisect these presumptions of omniscience to expose them as the Achilles’ heel of industrial urbanity. In his analysis, they lead to an attitude of instrumental rationality, applied to all resources, human or otherwise, coupled with a frightening inability to realise the inherently limited nature of the human capacity to apprehend the full complexity of either the natural or the social world.

In so doing, and in using the figure of the amateur, or the non-specialist, as the sources of pragmatic salvation, Wyndham is subverting that ambivalence even as he is himself using it to lend force to the critique that he is developing. His critique of industrial modernity is based, consciously or not, on his understanding and apprehension of key aspects of scientific and social scientific theory: on the theory of evolution and its application to human society, on the nature of community and industrial life, and on the relationship between expertise, particularly scientific expertise, and society. It is the techniques and theories of the sciences and social sciences through which he justifies his accounts. And, of course, his understanding of these works is inevitably that of an amateur. He tried a variety of careers after leaving school, but sustained himself primarily through his writings, together with a private income. The figures that Wyndham show to be the salvation of his disintegrating worlds are reflections of his own position in relation to the expert systems and intellectual theorising that his work critiques.

 Additionally, the novels are practical demonstrations of what Wyndham saw as the prime function of science fiction – the capacity to demonstrate the mutual interpenetration of science and society, to show that alternatives existed, that there was nothing pre-ordained about the present prospect and that by anticipating the future, it might be possible, as well as desirable, to change it. For a man who didn’t care whether he got his futures ‘right’, he was remarkably prescient. His account of the relationship between science and society is strongly reminiscent of the kind of sociologically-informed history of science and technology that has derived from the Edinburgh School since the early 1970s. His analysis of the structures of modernity more generally, the role of the city as emblematic of civilisation and the nature of the relationship between culture and nature speak directly to some of the most important debates that still dominate our public discourse – the introduction of GMOs to the biosphere; the role of the media in creating, not just reflecting public opinion and the role of governmental and corporate agencies in that process; the relationship between science and commerce – and, most critically, the inability of our social institutions to respond to a series of fundamental threats to the ecosystems within which those social institutions are embedded. Also worth noting is that his work has never been out of print and his writings continue to appeal to a broad public: the sheer popularity of his work suggesting that his imagined futures continue to resonate strongly with people’s understandings of their past and present.[[82]](#footnote-82)

 Are there lessons to be learned from Wyndham by the science studies community? He certainly believed that other writers could learn from science fiction, hoping that – if the genre could be detached from its reputation – future novelists would ‘by degrees … discover its fictility, its capacity to carry ideas that could be handled in no other medium, its potentialities for expressing not only satire and warning, but also wit, wisdom, hope, and, sometimes, even a kind of near poetry.’[[83]](#footnote-83) It is perhaps unlikely that historians of science, in their own professional practice, could be brought to regard science fiction as a mode in which they could write – although Naomi Oreskes and Eric Conway have made a notable stride in this direction.[[84]](#footnote-84) But historians of science and science fiction writers do share, at least in part, some crucial goals, not least among which is the exploration of how these categories of science and society interact and intersect. The role of narrative in this pursuit is one that we are asked to interrogate from our very first explorations in historiography, and the real-world impact of fiction can be seen in the consequences for human lives of invented traditions and imagined communities.

In fact, what may most significantly differentiate Wyndham and other science fiction writers from historians and sociologists of science, is the willingness of the former group to situate their accounts of the co-construction of sciences and societies within a profoundly moral universe, where the differential distribution of power, whether intellectual, political or economic, is lived through the emotional and empathetic impact it has on individuals. In other words, science fiction can show its audiences the *affect* as well as the *effect* that the sciences have on our apprehension of what it is to be human. Maybe that’s why they achieve much greater audiences – and sales – than we do.

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 John Wyndham, ‘Roar of Rockets’, *John O’London* (April 2, 1954); John Wyndham, ‘Notes for a talk to the SF Luncheon Club’, September 27, 1955 (Wyndham 5/4/10, John Wyndham Archive, University of Liverpool). Wyndham’s novels have gone through numerous reprints – *Triffids*, for example, was reprinted by the publisher more than forty times, four times in 1981 alone. In this paper, references are to the following editions, all brought out by Penguin Books: *The Day of the Triffids* (Middlesex, 1987), *The Kraken Wakes* (Middlesex, 1987), *The Chrysalids* (Middlesex, 1987), *The Midwich Cuckoos* (Middlesex, 1960), *The Trouble with Lichen* (Middlesex, 1963). [↑](#footnote-ref-1)
2. On the role of the ‘intellectual’ in Britain see Perry Anderson, “Origins of the Present Crisis,” *New Left Review*, I, 23 (January-February 1964); 26-53; Thomas William Heyck, “Myths and Meanings of Intellectuals in Twentieth Century British Identity,” *Journal of British Studies*, 37 (1998): 192-221; Stefan Collini, *Absent Minds: Intellectuals in Britain*, (Oxford, 2006). For analysis of the emergence of professional identities rooted in techno-scientific skill and expertise, see Jon Agar, *The Government Machine: A Revolutionary History of the Computer* (Boston MA, 2003); David Egerton, *Warfare State: Britain, 1920-1970* (Cambridge, 2005) and *Britain’s War Machine: Weapons, Resources and Experts in the Second World War* (London, 2012); Mike Savage, *Identities and Social Change in Britain since 1940: The Politics of Method*, (Oxford, 2010); Melissa Smith, “Architects of Armageddon: the Home Office Scientific Advisers’ Branch and Civil Defence in Britain, 1945-68,” *British Journal for the History of Science*, 43 (June 2010): 149-180, as well as the special issue of this journal on ‘British Nuclear Culture’, volume 45 (December 2012). [↑](#footnote-ref-2)
3. Social science fiction’ is a term often used to refer to that sub-genre of the field which is less dependent on technological innovation for their nova (Darko Suvin, *Metamorphoses of Science Fiction: On the Poetics and History of a Literary Genre*, New Haven, 1979), deriving inspiration instead from anthropology and even sociology (Ursula LeGuin, Robert Heinlein or C J Cherryh, for example). It is also increasingly the focus of study in its own right – see the special issue of *Science Fiction Studies* (30:2)edited by Neil Gerlach, Sheryl N Hamilton, and Rob Latham in July 2003. [↑](#footnote-ref-3)
4. Wyndham used various combinations of these names throughout his writing career, enabling him to distinguish between the persona who wrote magazine stories (often John Beynon, or John Beynon Harris) and the ones who wrote novels. On at least one occasion he produced a novel – *The Outward Urge* (Middlesex, 1959) – that he co-wrote with himself: ‘John Wyndham and Lucas Parkes’. In private life, he used the name Beynon Harris (E F Bleiler, “Luncheon with John Wyndham,” *Extrapolation* 25 (Winter 1984): 314-317). [↑](#footnote-ref-4)
5. Most famously, Aldiss dismissed Wyndham’s work as ‘cozy catastrophe’, where “the hero should have a pretty good time (a girl, free suites at the Savoy, automobiles for the taking) while everybody else is dying off” (Brian Aldiss, *Trillion Year Spree,* Thirsk, 2001, 280). Few critics have gone quite as far as this (and L J Hurst, “We Are The Dead: *Day of the Triffids* and *1984*” *Vector* 113, August/ September 1986, pp. 4-5, has directly challenged it). For further commentary, see David Ketterer, “John Wyndham and the Sins of His Father,” *Extrapolation*, 46(2005): 163-188;”John Wyndham and the Searing Anguishes of Childhood”, *Extrapolation*, 41(2000): 87-103); Andy Sawyer, “John Wyndham and the Fantastic”, *Wormwood* 3 (2004): 51-62; C N Manlove, “Everything Slipping Away: John Wyndham’s *Day of the Triffids” Journal of the Fantastic in the Arts*, 4 (1991): 29-53; Owen Webster “John Wyndham as a novelist of ideas,” *S F Commentary* 44/45 (1975): 39-58; William Temple, “Plagiarism in SF,” *Vector*36 (1965): 3-8; Matthew Moore, “Utopian Ambivalences in Wyndham’s *Web,*” *Foundation: The International Review of Science Fiction*, 32 (Autumn 2003) 47-56; Jo Walton “Who Survives the Cosy Catastrophe?” *Foundation: The International Review of Science Fiction* 34 (Spring 2005): 34-39; Nick Hubble, “Five English Disaster Novels,” *Foundation: The International Review of Science Fiction* 34 (Autumn 2005): 89-103. Sawyer’s ‘John Wyndham’ and Thomas D Clareson & Alice S Clareson, “The Neglected Fiction of John Wyndham: ‘Consider Her Ways’, *Trouble with Lichen* and *Web*” in *Science Fiction Roots and Branches* (eds.) Rhys Garnett and R J Ellis (London: 1990) are unusual in that they combine an analysis of Wyndham as novelist with an examination of his skills as a social analyst. [↑](#footnote-ref-5)
6. *Triffids* was adapted for radio early in the 1950s, and most recently broadcast in the UK on BBC Radio 4 in 2008. In 1962, a film version was made starring Howard Keel. Perhaps the most influential adaptation was the BBC’s 1980s serial, starring John Duttine, and causing many children (and adults) of that period to view the local vegetation with an extremely wary eye. A new version was broadcast by the BBC in 2009. *Kraken, Cuckoos* and *Chrysalids* were all adapted for radio, as was his novel *Chocky* (Middlesex, 1968). *Chocky* also became a children’s TV series for the British ITV in the mid-1980s, with several spin-offs including *Chocky’s Children*. *Cuckoos* was filmed twice as *Village of the Damned*, once in 1960 and again in 1995, starring Kirstie Alley and Mark Hamill. [↑](#footnote-ref-6)
7. As Aldiss puts it, both *Triffids* and *Kraken* “were totally devoid of ideas but read smoothly and thus reached a maximum audience, who enjoyed cozy disasters” (*Trillion Year Spree*, 279). [↑](#footnote-ref-7)
8. ‘Xenobath’ (or xenobathite) is the neologism that the protagonists of *Kraken* use to describe the invading intelligences from outer space who can live only at great pressure (five tons per square inch) – that is, at the bottom of the sea. [↑](#footnote-ref-8)
9. See, for example, his ‘Science-Fiction and Space-Opera’ (Wyndham Archive 5/3/7) [↑](#footnote-ref-9)
10. Wyndham ‘Notes for a talk to the National Library Club’, March 31st, 1955 (Wyndham Archive 5/4/9) [↑](#footnote-ref-10)
11. Wyndham, reviewing Stanley Weinbaum’s *The Black Flame* (Wyndham Archive, 5/1/24) [↑](#footnote-ref-11)
12. Wyndham, ‘Notes for a talk’ (cit. n. 10). [↑](#footnote-ref-12)
13. Wyndham ‘The future of science fiction’, *Radio Times*, January 30, 1969 (Wyndham Archive, 5/3/12 and 9/2). [↑](#footnote-ref-13)
14. Ibid. [↑](#footnote-ref-14)
15. Wyndham, ‘But Why This Science Fiction?’ (Wyndham Archive, 5/3/13). [↑](#footnote-ref-15)
16. Wyndham, ‘H G Wells – prophet’, (Wyndham Archive, 5/2/6). [↑](#footnote-ref-16)
17. Wyndham, writing as John Beynon, ‘Not so simple’, *Authentic Science Fiction*, no. 30 (Feb 1953, Wyndham Archive, 5/3/1). [↑](#footnote-ref-17)
18. But see also Mike Ashley’s account of the difficulties that British writers had in accessing magazine outlets (*Transformations: the Story of the Science Fiction Magazines 1950-1970*, Liverpool, 2017). [↑](#footnote-ref-18)
19. Wyndham, ‘Stuff for the N W book’(Wyndham, 5/3/5), ‘N. B. L. talk’ (Wyndham, 5/3/2) [↑](#footnote-ref-19)
20. ‘Science Fiction and Soap Opera’, (cit. n. 9); John Wyndham, ‘H G Wells – prophet’ (cit. n. 14). [↑](#footnote-ref-20)
21. ‘Science Fiction and Soap Opera’ (cit. n. 9). [↑](#footnote-ref-21)
22. Wyndham (cit.n. 15) [↑](#footnote-ref-22)
23. John Beynon ‘Meet the Author’ (Wyndham, 5/4/1) [↑](#footnote-ref-23)
24. Wyndham – ‘V of the Magi’ (Wyndham 5/3/16) [↑](#footnote-ref-24)
25. Of the true alien invaders, the cuckoo Children are nearly identical with the human form, while the audience never sees the xenobathites (other than in a state of ooze-like decomposition) – and *Lichen* looks like any other scrap of green mould. The closest Wyndham comes to creating a monster is in *Triffids* – but despite the best efforts of the book’s TV and cinema adaptors, his own description of the individual plants is deliberately low key (see *Triffids*, pp. 28-29). [↑](#footnote-ref-25)
26. ‘But Why This Science Fiction’ (cit. n. 15). [↑](#footnote-ref-26)
27. All sub-headings in quotation marks are from Wyndham’s writings. [↑](#footnote-ref-27)
28. *Triffids* (cit. n.1: 26). [↑](#footnote-ref-28)
29. Ibid., 32. [↑](#footnote-ref-29)
30. Ibid., 36-7. [↑](#footnote-ref-30)
31. Wyndham was, of course, writing some years before genetic modification became either possible or publicly problematic, and was equally in advance of the launch of Sputnik. [↑](#footnote-ref-31)
32. *Triffids* (cit. n.1, 12). [↑](#footnote-ref-32)
33. Ibid., 247. [↑](#footnote-ref-33)
34. Ibid., 247. [↑](#footnote-ref-34)
35. Ibid.,257-8. [↑](#footnote-ref-35)
36. Ibid., 26. [↑](#footnote-ref-36)
37. Ibid., 46. [↑](#footnote-ref-37)
38. Ibid., 48. [↑](#footnote-ref-38)
39. One could argue that his presentation of these two aspects is a reflection of the clearer class-distinctions of the 1950s – as with Bill Masen’s father, the world is divided into those who use their brains and work in an office, and those who work with their hands and get dirty. [↑](#footnote-ref-39)
40. Of course, as historians and sociologists of science have repeatedly demonstrated, the distinction between technicians (who run the experiments) and theoreticians (who tell you why the experiment is important and what it means) is one that dates to the origin of modern science and is still present in laboratories to the present day: Steven Shapin and Simon Schaffer, *Leviathan and the Air Pump: Hobbes, Boyle and the Experimental Life*, (New Jersey: 1989); Steven Shapin, *Social History of Truth* (Chicago, 1994); ‘The invisible technician’, *American Scientist* 77 (6, Nov-Dec 1989) 554-63. [↑](#footnote-ref-40)
41. ‘Meet the Author’ (cit. n. 22). [↑](#footnote-ref-41)
42. *Cuckoos* (cit. n. 1, 35). It is intriguing to compare this to the arguments put forward in Edgerton (2005, cit. n. 2). [↑](#footnote-ref-42)
43. *Kraken* (cit. n.1, 109-10). [↑](#footnote-ref-43)
44. Ibid., 159. [↑](#footnote-ref-44)
45. Ibid., 159. [↑](#footnote-ref-45)
46. Ibid., 205. [↑](#footnote-ref-46)
47. *Cuckoos* (cit. n. 1, 187) [↑](#footnote-ref-47)
48. *Kraken* (cit. n. 1, 98-107) [↑](#footnote-ref-48)
49. *Cuckoos* (cit. n. 1, 101). [↑](#footnote-ref-49)
50. Ibid, 116-7. [↑](#footnote-ref-50)
51. *Triffids* (cit. n.1, 56-50). [↑](#footnote-ref-51)
52. Ibid., 118. [↑](#footnote-ref-52)
53. In this context, it is worth noting that Wyndham was writing at a time when physics still largely remained the queen of the sciences, both in terms of funding and in relation to the public perception of science (see Iwan Rhys Morus, *When Physics Became King*, Chicago: 2005). Francis Saxover, the chief male protagonist of *Lichen* at one point states as a ‘self evident fact ... that the dominant figure of yesterday was the engineer; of today, the physicist; of tomorrow, the biologist” (*Lichen*: 20). The second half of the 20th century did indeed see biology – in the form of genetics and evolutionary biology, as well as the biochemistry with which Saxover was concerned – move towards the top of the public and academic agenda. [↑](#footnote-ref-53)
54. See Julian Huxley, *Evolution: The Modern Synthesis* (London, 1942). Discussion of the history of the synthesis can be found in V Betty Smocovitis, *Unifying Biology: the Evolutionary Synthesis and Evolutionary Biology* (New Jersey,1995), Ernst Mayer and William Provine,  *The Evolutionary Synthesis: Perspectives on the Unification of Biology* (Cambridge MA, 1998), Ullica Segerstrale, *Defenders of the Truth: The Sociobiology Debates*, (Oxford 2001) and Peter Bowler, *Evolution: the History of an Idea* (Berkeley CA, 2009) [↑](#footnote-ref-54)
55. George C Williams, *Adaptation and Natural Selection* (Princeton, 1966); V C Wynne-Edwards *Animal Dispersal in relation to Social Behaviour*, ( London, 1962) [↑](#footnote-ref-55)
56. See W Clyde Allee *The Social Life of Animals* (Boston MA: 1938) and his “Social Biology of Subhuman Groups,”*Sociometry*, 8 (1944): 21-29. Also see Stevi Jackson and Amanda Rees, “The appalling appeal of nature,” *Sociology*, 41 (2007): 917-930; Gregg Mitman, *The State of Nature: Ecology, Community and American Social Thought*, Chicago, 1992. [↑](#footnote-ref-56)
57. The saviour of *Chrysalids*’ children, it might be noted, is never even given an individual name, although she does merit the definite article – she is always referred to as ‘the woman from Sealand’. [↑](#footnote-ref-57)
58. *Chrysalids* (cit. n. 1, 195). [↑](#footnote-ref-58)
59. *Cuckoos* (cit. n. 1, 113). [↑](#footnote-ref-59)
60. Ibid., 197. [↑](#footnote-ref-60)
61. Ibid., 199. [↑](#footnote-ref-61)
62. *Kraken* (cit. n. 1, 87). [↑](#footnote-ref-62)
63. Ibid., 90. [↑](#footnote-ref-63)
64. Ibid., 100. [↑](#footnote-ref-64)
65. Increasingly, the subject of ignorance is one that is being actively explored by sociologists and cultural studies scholars – see, for example, So, for example, Matthias Gross, *Ignorance and Surprise: science, society and ecological decisions* (Chicago, 2010); Robert Proctor and Londa Schiebinger, *Agnotology* (California, 2008). [↑](#footnote-ref-65)
66. *Triffids* (cit. n. 1, 16). [↑](#footnote-ref-66)
67. Ibid., 104, 203-4. [↑](#footnote-ref-67)
68. Ibid., 60. [↑](#footnote-ref-68)
69. Barry Langford, ‘Introduction’, *Day of the Triffids*¸ Penguin, London, 1999 [↑](#footnote-ref-69)
70. *Kraken* (cit. n. 1, 196). [↑](#footnote-ref-70)
71. *Cuckoos* (cit. n. 1, 112). [↑](#footnote-ref-71)
72. *Triffids* (cit. n. 1, 16). [↑](#footnote-ref-72)
73. *Kraken* (cit. n. 1. 219). [↑](#footnote-ref-73)
74. Ibid., 216. [↑](#footnote-ref-74)
75. Also see Patrick Parrinder, “From Mary Shelley to the *War of the Worlds*: the Thames Valley Catastrophe” in *Anticipations: Essays on Early Science Fiction and its Precursors*, (ed) David Seed (Liverpool, 1995). [↑](#footnote-ref-75)
76. *Triffids* (cit. n. 1, 86). [↑](#footnote-ref-76)
77. Ibid. [↑](#footnote-ref-77)
78. Ibid., 231. [↑](#footnote-ref-78)
79. *Kraken* (cit. n. 1, 220-4). [↑](#footnote-ref-79)
80. Ibid., 211. [↑](#footnote-ref-80)
81. On the ‘island’ in fiction, see Paul Kincaid, “Islomania? Insularity? The Myth of the Island in British Science Fiction,” *Extrapolation*, 48 (Winter, 2007): 462-471. [↑](#footnote-ref-81)
82. Two of his novels were, in fact, published posthumously: one ten years after his death – *Web* (1979) – and another thirty years later (*Plan for Chaos*, 2009). Both testify to Wyndham’s enduring popularity. [↑](#footnote-ref-82)
83. ‘But Why this Science Fiction?’ (cit. n. 14). [↑](#footnote-ref-83)
84. Naomi Oreskes and Eric Conway, *The Collapse of Western Civilisation: a View from the Future* (New York, 2014). [↑](#footnote-ref-84)