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MAD SCIENTISTS IN H. G. WELLS'S EARLY FICTION

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Abstract

This article analyses six mad scientist characters from H. G. Wells's early fiction. The analysed mad scientists are as follows – the Bacteriologist from "The Stolen Bacillus", Hapley from "A Moth – Genus Novo", the Time Traveller from *The Time Machine*, Doctor Moreau from *The Island of Doctor Moreau*, Griffin from *The Invisible Man*, and Cavor from *The First Men in the Moon*. The article uses a broader definition of the mad scientist, one that includes not only evil scientific geniuses but also other, more benign characters, as long as they are eccentric enough to be considered mad. The said mad scientists are divided into three different categories, depending on whether they are evil, benign or neither of the two. The article shows that the analysed mad scientists reflect the early Wells's disbelief in the power of science to change the world for the better. It is also argued that Wells's varied body of mad scientists enriched and diversified the mad scientist trope in the history of the SF genre.

Key words

H. G. Wells; fiction; mad scientist; SF genre; criticism of scientific development; character traits

Introduction

Since H. G. Wells drew the bulk of his inspiration from one of the nineteenth century's most celebrated scientists, Thomas Huxley, it is no wonder that many of his works of fiction, most of which he wrote in the early years of his writing career (1895–1901), have scientists as their main characters. In the context of the fact that Huxley's scientific, evolutionary stance was anthropologically pessimistic, it is also no wonder that Wells's early fiction was pessimistic and imbued with scepticism towards science and scientists or, to put it more aptly, towards the nineteenth century's belief in progress as a common feature of that age, dominated by the optimistic outlook of the bourgeois social class (Hillegas 1967: 18-21). Since there are few literary tropes and motifs which can serve the purpose of criticism of scientific development as well as the mad scientist trope, it becomes clear that this trope is a very useful perspective for analysing science-related works of literature, the majority of which usually fall within the boundaries of the SF genre. It is exactly this trope that will be the topic of this article, that is to say, the topic of this article will be to discuss the theme of mad scientists in the early artistic oeuvre of H. G. Wells.

H. G. Wells was, and has remained to this day to be, one of the most skilful and versatile writers of science fiction. Bearing in mind, on the one hand, Wells's exuberant imagination and the large number of perspectives from which he observed man's position and fate in the cosmos and, on the other, Shakespeare's vigorous imagination and the huge number of perspectives from which he dealt with the human psyche, it becomes clear that the nickname Brian Aldiss (1973: 132) gave to Wells – namely, "the Shakespeare of science fiction" – is well deserved. This same imaginative vigour and variety of perspectives, which are characteristic of Wells's fiction in general, also characterise his mad scientist works, which make a nonnegligible part of his early oeuvre.

That said, this article will endeavour to analyse, conditionally speaking,¹ all the observable mad scientist characters in Wells's early fictional opus by dividing them into different categories and insightfully presenting their main traits. The article's conclusion will also provide a general comment on the message that Wells's mad scientists convey apropos of his attitude towards science and the Victorian belief in scientifically based progress, at least in terms of how this attitude is manifested in the early years of his emphatically pessimistic opus. However, before the analysis itself commences, it is necessary to emphasise that the concept of mad scientist will not be understood here as it is usually understood - narrowly, solely as a villain who uses his scientific genius to do harm to the people around him - but instead mad scientists will be understood somewhat more broadly, in accordance with a definition given by Roslynn Haynes - as characters who "vary from conscious villains seeking power or revenge, to harmless clowns and fools, focused on research and oblivious of conventions" (2005: 483). Furthermore, the mad scientists that this article will deal with are as follows - the Bacteriologist from "The Stolen Bacillus" (1894), Hapley from "A Moth - Genus Novo" (1895), the Time Traveller from The Time Machine (1895), Doctor Moreau from The Island of Doctor Moreau (1896), Griffin from The Invisible Man (1897), Cavor from The First Men in the Moon (1901) - and these will be divided into three categories, in accordance with how evil they are and whether at all they are evil, namely, the category of "Evil Mad Scientists" (Moreau and Griffin), the category of "Benign (Eccentric) Mad Scientists" (Time Traveller, Cavor, Bacteriologist), and the "Middle Ground Category" (Hapley).

It is also necessary to mention that there are two more characters from Wells's early opus who might be called mad scientists – Nebogipfel from *The Chronic Argonauts* (1888) and Graham from *When the Sleeper Wakes* (1899) – but neither of them will be dealt with here. The reason why Nebogipfel will not be dealt with is that he appears in Wells's first fictional work, one that he actually never finished and that was only a rather poor draft of his exquisite short novel *The Time Machine*, so that it is deemed unnecessary to pay any attention to a work which was left uncompleted and which, seven years later, received an incomparably finer version in the form of *The Time Machine*. In other words, as one might argue, a character is no character at all if it comes from a work which, due to being unfinished, is no work, in the strictest sense of the word. The reason why Graham will not be analysed is that his "madness" as a scientist, a quality that is necessary for someone to be called a mad scientist, is too weak and too unimportant for the

final message of *When the Sleeper Wakes* (1899), for it merely serves the purpose of enabling him to fall into a two-century-long cataleptic sleep, one that will allow him to partake in a proletarian revolution of the year 2100 CE (Graham's madness or eccentricity is his insane desire to keep himself awake, for the purposes of intense and uninterrupted scientific research, for many days and nights in succession, a desire that would lead him to using various stimulative drugs, even cocaine among others).

When it comes to the contribution that this article strives to make to the existing criticism of Wells's early fiction, the analysis that follows will attempt to not only confirm but also strengthen the established scholarly view of the early Wells's outlook on science (the established scholarly view being, most notably, the work of Bernard Bergonzi, but also of other critics who followed in Bergonzi's footsteps towards the close of the twentieth century and in the early twenty-first). The strengthening of the established stance of Wellsian scholars on the early Wells's outlook on science and scientific development will come in the form of this paper's broadened mad scientist typology. What is of importance here is that the following analysis is not merely to include the four mad scientists from Wells's great scientific romances (namely, Doctor Moreau, Griffin, the Time Traveller, and Cavor) as characters that are more or less commonly covered by Wellsian scholars in their writings, but it will also include two minor mad scientists from Wells's lesser-known short works of fiction (namely, the Bacteriologist and Hapley) as characters that are almost never dealt with as mad scientists in Wellsian scholarship.²

Evil Mad Scientists

Doctor Moreau is one of the two most famous mad scientists produced by H. G. Wells and, together with the equally famous Griffin from The Invisible Man, makes the entire body of evil geniuses in this writer's early fiction. Doctor Moreau, as he is presented in *The Island of Doctor Moreau*, is an elderly scientist pursuing unorthodox, scandalous methods of vivisection on a secluded tropic island near the Galapagos, far away from civilization and his native England, whence he was expelled because of the cruel nature of his scientific endeavour. Moreau cuts animals into pieces, puts them together, and applies his advanced knowledge of physiology and psychology to create bipedal and speaking human beings, who can be taught to adhere to certain basic social norms. However, as it turns out in the course of the novel, the human beings Moreau creates are intelligent (though rather lowly), grotesque-looking, and have great difficulties respecting the laws that Moreau teaches them to adhere to - and what the mad doctor is trying to teach them is to revere him as their god and to forgo all the habits that are characteristic of animal life - such as tasting blood, killing other members of the beast folk (the name Wells gives to Moreau's strange creations), walking on all-fours, etc. For disobedience, that is, the breaking of Moreau's rules, there is a severe punishment inflicted by the creator of the beast people – all members of the beast folk must go to "the House of Pain", where they are again vivisected

and psychologically and physiologically conditioned so that they would mend their behaviour. This process, just like the process of creating beast-men and beast-women in the first place, is extremely painful, so that all the members of the beast folk fear it with utmost intensity. By the end of the novel, it turns out that the beast people are incapable of fully and lastingly obeying Moreau's rules, so that eventually Moreau gets killed by one of the creatures and their entire species reverts to their mixed animal form, losing speech, the rudiments of human intellect, as well as their bipedal stature.

Moreau is not only described as a possessor of ingenious scientific prowess but also as a man who has no compassion for the animal subjects that he is experimenting on. His vivisectionist experiments are excruciatingly painful for his animals and for the beast-folk and, as he says, by means of his practical scientific endeavour he intends to create perfect human beings, that is, perfectly rational men and women, free from both pain and pleasure: "Each time I dip a living creature into the bath of burning pain, I say, 'This time I will burn out all the animal, this time I will make a rational creature of my own!'" (Wells 1896: 144).

It is also very important to observe that he feels no remorse whatsoever over the pain he is inflicting, which he justifies by the non-morality of nature: "To this day I have never troubled about the ethics of the matter', he continued. 'The study of Nature makes a man at last as remorseless as Nature.'" (Wells 1896: 137).

There is little doubt that Moreau's character is based on T. H. Huxley's idea of non-moral nature as prevalently marked by pain,³ a notion expounded in his essays "The Struggle for Existence in Human Society" (1888) and "Evolution and Ethics" (1894); it is just that Moreau's view of how the inherent non-morality and pain-inflicting power of nature should be treated is in total contrast to that of Huxley: "Let us understand once and for all, that the ethical progress of society depends, not on imitating the cosmic process, still less in running away from it, but in combating it" (Huxley 1897: 83). In other words, Moreau rejects Huxley's call for responding to nature's inherent savagery and ubiquity of pain with ethicisation, and affirms that savagery and pain with utter indifference to the suffering of his living experimental subjects. It is in this element that one may find the real character of Moreau as a mad scientist, for, as it seems, Moreau is a villain not because of his desire to destroy and kill, as perhaps the ultimate expression of a mad scientist's villainy, but because of his "socially irresponsible" pursuit of knowledge for the sake of knowledge (Haynes 2005: 483), because of his "morally repugnant" desire to imitate nature in all her ferocity (Haynes 2005: 485). It may be concluded, therefore, as perceived by Haynes (2005: 485), that Moreau, in spite of all his doubtless cruelty and sadism, does not occupy the very highest ladder in the hierarchy of villains. That place is reserved for Griffin, the evil protagonist of The Invisible Man.

Griffin, as he is presented in the novel, is a young albino, about thirty years old, an expert in physics and optics, who discovers a scientific method for turning himself invisible. Having attained what he initially perceived to be a superior asset, he embarks on a campaign of terrorisation, aiming to win power over Britain. He plans to achieve this by killing all those who are against his coup, by forcing people, through sheer intimidation, to accept him as their master: They know there is an Invisible Man – as well as we know there is an Invisible Man – and that Invisible Man, Kemp, must now establish a Reign of Terror. Yes; no doubt it's startling, but I mean it. A Reign of Terror. He must take some town, like your Burdock, and terrify and dominate it. He must issue his orders. He can do that in a thousand ways – scraps of paper thrust under doors would suffice. And all who disobey his orders he must kill, and kill all who would defend them (Wells 1897: 183–184).

Quite megalomaniacally, he sees himself as the establisher of a new social order, one that is meant to send Queen Victoria's rule over England into history: "This is day one of year one of the new epoch – the Epoch of the Invisible Man. I am Invisible Man the First" (Wells 1897: 196) – as Griffin says in a letter to Kemp, his one-time fellow-student from University College, who, at one point in the second half of the novel, gave him food and shelter after finding him wounded and exhausted in his house and who also secretly reported him to the police, for which reason the invisible man now threatens to kill him.

However, Griffin's big plan is flawed from the very outset, because his invisibility is of use only in fine weather and when he does not have any recently ingested food in his stomach, because precipitation, urban soot, and undigested food all reveal the contours or certain parts of his body. Also, being partially dressed is equally out of question because that would make him overly conspicuous, so that, in cold weather, Griffin has to be entirely clothed, including his whole face.

Due to all these difficulties and also because of the fact that Griffin has no real allies (Thomas Marvell, an unintelligent rural tramp, whom the invisible man at one point terrorises into obeying him and carrying out his tasks, cannot be considered a true ally), his attempt at assuming ultimate power eventually fails as he is hunted down and killed with a spade by a navvy. Griffin's adventure, which was, in fact, farcical from the very beginning because he never had the needed infrastructure to complete his project, ends tragically and unsuccessfully, revealing the futility and wrongness of a scientist's hubris.

Scientific hubris is actually what lies at the core of *The Invisible Man* and Griffin's unsuccessful reign of terror. Griffin, just like Moreau, of whom he is a natural continuation in Wells's fiction, is someone who uses science for evil purposes, but Griffin, as finely phrased by Holt, is a somewhat different scientist from Moreau:

[...] Moreau is an outlaw scientist with a dangerous idea – turning animals into human beings by surgical means – but he is still interested mainly in the principle of the thing, "the plasticity of living forms" and the use of science to transform. He does not try to exploit science for personal gain, and he does not form grand schemes to use his Beast People to win money and power. On the contrary, he gives up any hope of wealth and power in the human community to pursue his ideas on a remote island. Griffin, despite some initial interest in invisibility as a scientific problem, soon becomes concerned mainly with the power it gives him. He wants revenge on a world which, he believes, has slighted and mistreated him, and he wants

to achieve the usual worldly objectives [...] of wealth and power (Holt 1992: 239–240).

Another difference between Griffin and Moreau is that the former, over the course of his evil activities, burns a house, steals from shops, hits people, and once, in a fit of rage, even murders a man, whereas the latter does not destroy anything or kill anyone, but instead merely tortures his experimental subjects. So, the intensity of Griffin's evil is obviously greater than that of Moreau.

The evil that drives Griffin is of staggering proportions because, at one point, during his research, once he has run out of financial funds for his work, he decides to steal money from his father, the money his father borrowed from someone else, which then leads the poor indebted man to commit suicide. Griffin, to the shock of the reader, shows no regret for what he did to his parent, explaining thus how he felt about the man's death: "I did not feel a bit sorry for my father. He seemed to me to be the victim of his own foolish sentimentality. The current cant required my attendance at his funeral, but it was really not my affair" (Wells 1897: 142).

His total lack of remorse for what he did to his father and the fact that he justifies his hate of the world by its refusal to properly acknowledge his scientific work (he says that he was dissatisfied with the position of a meagrely paid college demonstrator, and with his professors who constantly threatened to steal his ingenious discovery) point to how terribly sociopathic Griffin is. Not being given a fortune or social privileges for carrying out scientific investigations, no matter how ingenious these were, is certainly no reason to launch a misanthropic attack on the world, which is a motif that, as one may notice, somewhat presciently anticipates the emergence of history's biggest villain so far – Adolf Hitler, the Nazi leader of Germany's Third Reich, who started developing an insane hatred for everyone and everything except for himself and his myth of the "superhuman Arian Germanic race" because the Academy of Fine Arts in Vienna disallowed him to study there and become a professional painter (Hitler 1940: 26–27). For this reason, no one else but Griffin, the Machiavellian, power-hungry sociopath, is to be considered the evillest of all the mad scientists in Wells's early fiction.

Benign (Eccentric) Scientists

The first benign mad scientist of H. G. Wells's that is to be dealt with here is the Time Traveller, the protagonist of Wells's perhaps most iconic scientific romance, *The Time Machine*. The Time Traveller does not only differ from Griffin and Moreau in that he has no evil intentions but also in that he is sociable rather than a loner: "The hero of *The Time Machine* – unlike his predecessor, Nebogipfel, and his successors, Moreau and Griffin – is not a solitary eccentric on the Frankenstein model, but an amiable and gregarious bourgeois" (Bergonzi 1961: 46). The Time Traveller, as one sees him at the beginning of *The Time Machine*, enjoys being a friendly host to a number of bourgeois visitors and is particularly happy to present to his guests the ingenious result of his long and zealous scientific

work – the time travelling machine, as resting on a four-dimension model of the universe. During the Time Traveller's stay in the far future, in the year 802,701 CE – in the world of the Eloi and Morlocks – the reader becomes acquainted with this scientist's adventurous spirit and his physical capabilities, in addition to the mental ones. As Wells's hero himself narrates, he ran and walked for miles across the green landscape of a post-civilisational England, fought against myriads of cannibalistic Morlocks, and managed to ensure his return to the present, Victorian time, through a constant use of his unquestionably powerful intellect.

In other words, wandering the hills and meadows of a future south-eastern England, the Time Traveller finds a crowbar to fight the Morlocks, as well as camphor which would enable him to keep the monstrous descendants of the nineteenth-century working class at bay. His clever use of fire, lit with not only camphor but also some matches which he fortunately brought with himself on his journey into the future, testifies to his practical intelligence, which seems to be no lesser than his theoretical, scientific intelligence, which he demonstrated before his journey into the future by being able to discover the fourth dimension – i.e., time – and use it for time travel. It is interesting to note that the novel's hero himself takes the pains to reveal how practical he is, which he does by saying the following at the moment when he grows tired of searching for his lost machine and decides to have some rest, watching the landscape with the Eloi in it: "I sat down to watch the place. But I was too restless to watch long, and, besides, I am too Occidental for a long vigil. I could work at a problem for years, but to wait inactive for twenty-four hours – that is another matter" (Wells 1895: 89).

It is his Occidental mindset, or his inclination towards always seeking for practical solutions, that would eventually save him from what at one point looked like a hopeless situation. In other words, the Time Traveller, in the end, manages to find his time machine in the pedestal of the White Sphinx (a large monument built by the humans of "the Golden Age" at some undefined point in the future between the Victorian era and 802,701 CE) and, having outwitted the cannibalistic Morlocks, escapes from the clutches of their hands.

From the description given above, it is obvious that the Time Traveller is a scientific genius with a great interest in adventure and discoveries - technological and bio-social. He is both an inventor and an explorer. The Time Traveller is not evil – his discoveries are not aimed at harming or abusing anyone – he is simply adventurous and devoted to his intellectual pursuits to the point of, as one might assume, neglecting family life (nowhere in the novel is it mentioned that the Time Traveller has a wife or a family). This is his madness, and so is his insistence on going on a second journey through time, after his extremely difficult return from his first journey which makes the core of the novel. In other words, at the very end of the book, it is stated that it has been three years since the Time Traveller embarked on his second journey through time, from which he has not yet returned. An implicit conclusion is that Wells's protagonist will never return and that his love for exploration is so great that it becomes even dangerous for his own well-being (the Time Traveller may have as well died on his second journey, which in itself is reason enough to consider him a mad scientist, regardless of the fact that his character does not show any malicious aspirations).

Cavor from the First Men in the Moon is another benign mad scientist and his eccentricity is somewhat different from that of the Time Traveller. In other words, Cavor is equally ingenious as the protagonist of The Time Machine and, just like the Time Traveller, his scientific provess is not aimed at harming anyone. And that, in a nutshell, is what makes them similar. What makes them different, however, is their respective levels of aggression and practical dexterity, especially in dangerous, life-threatening situations. While the Time Traveller, on the one hand, is physically capable and manages to not only defeat a huge number of Morlocks in a hand-to-hand combat but also outwit them by taking advantage of their intolerance to light and ignorance of how the time machine actually works, Cavor, on the other hand, is utterly unresourceful. Cavor's unresourcefulness is best seen at the end of The First Men in the Moon, where this fictional genius is shown as openly revealing mankind's love of warfare to "the Grand Lunar [...] the Master of the Moon" (Wells 1901: 283), an act that, given his status as a captive of the Selenites, will eventually cause his own death at the hands of the Moon's inhabitants, fearful of the possibility of such a warlike species as mankind invading and conquering their native habitat.

When it comes to Cavor's scientific genius and what he manages to discover in the novel, it is a near magic substance called cavorite that he invents, a helium-based substance which is capable of blocking the gravitational pull, that is to say, of enabling a pilot of a spaceship, whose windows would be made from such a material, to control his vessel, to fly when the windows are closed (the outer gravitational force is blocked by the cavorite windows and no heavy body in the spaceship's proximity attracts it) and land when the windows are open (the outer gravitational force is not blocked by the cavorite windows and the spaceship is attracted by any heavy body that is sufficiently close to it). Cavor is also explicitly described as unmarried and uninterested not only in pursuing family life but also in winning titles and public recognition for his scientific work. In the eyes of Bedford, the narrator of the events in the novel and Cavor's companion on his journey to the Moon, Cavor is "an exceptional man" whose exceptionality resides in the fact that he seeks "knowledge for its own sake" (Wells 1901: 185).

I remember once, when I asked you why you conducted all these researches, you said you wanted your F. R. S., and to have the stuff called cavorite, and things like that. You know perfectly well you didn't do it for that; but at the time I took you by surprise, and you felt you ought to have something to look like a motive. Really you conducted researches because you had to. It's your twist. [...]

It isn't one man in a million that has that twist. Most men want – well, various things, but very few knowledge for its own sake. (Wells 1901: 185)

So, Cavor's immaterialism and disregard for anything else but science make this mad scientist of Wells's similar to Moreau, but Cavor, unlike the said vivisectionist, is not sadistic at all; quite the contrary, once he finds himself captured inside the Moon, together with Bedford, all he wants is to get acquainted with the Selenite culture, all the while assuming that this intelligent Lunar species is pacifistic and that no harm can be done to them by the Selenites. Bedford, however, is of an altogether different opinion and when he eventually manages to free himself and Cavor, who, in fact, never wanted to be freed from the Selenites, what ensues is a ferocious battle, whose ferocity is constantly attenuated by a sense of humour radiating from Cavor's refusal to fight the Selenites and from his visible reluctance to follow Bedford in his hasty escape to the surface of the Moon. Cavor's unusual mindset is evident also in his abhorrence of Bedford's proposal that the two of them should go back to Earth and then return with guns and a whole army of "conquistadors", so that they would be able to steal as much gold as they can carry and enrich themselves (the interior of the Moon turns out to be full of objects made of gold). Cavor is an immaterialist and a pacifist, with a trifle of visionariness in his mind, such as when, for example, he is explaining to Bedford that the colonisation of the Moon would be entirely wrong because it would "only spread warfare and multiply occasions of war", a thing he, as a humanist (Wells's alter ego, perhaps), despises:

It is not as though man had any use for the moon. What good would the moon be to men? Even of their own planet what have they made but a battle-ground and theatre of infinite folly? [...] No! Science has toiled too long forging weapons for fools to use. It is time she held her hand (Wells 1901: 217).

To sum up, Cavor is an example of a benign but clumsy mad scientist, whose, even exaggerated, benevolence eventually costs him his life because of his failure to realise that the Selenites would want to pre-emptively annihilate any possibility of a race as belligerent as humans ever setting foot on the Moon by eliminating the only human being in possession of the secret of cavorite, the sole basis of the earthlings' space-faring technology. Given his lack of interest in worldly objectives, his solitariness and pacifism, it would be possible to liken Cavor to Nikola Tesla, the famous Serbian-American scientist and inventor. However, when comparing these two figures – one fictional and the other historical – it would be necessary to notice one important difference between them – namely, the fact that Cavor, for all his visionariness in terms of presciently wanting to stop the massive carnage resulting from a potential conquest of the Moon by the human species, is, unlike Tesla, primarily oriented towards pursuing knowledge for knowledge's sake, whereas the latter's primary motive for his ingenious scientific research was to better the lives of all human beings on earth (Πετροβμħ 2021: 141–142).

As a mad scientist, the Bacteriologist from Wells's short story "The Stolen Bacillus" has more in common with Cavor than with the Time Traveller. In other words, in the adventure that the Bacteriologist is a part of, the clumsiness of this character is revealed which makes him a blood brother of Cavor's, with one important difference between the two – namely, the fact that the Bacteriologist, unlike Cavor, eventually does not pay for his clumsiness with his life. Another difference between the two men is that Cavor is, beyond any doubt, a far greater genius than the Bacteriologist. In fact, the reader finds no evidence of the Bacteriologist's extraordinary genius – the only evidence of his scientific prowess given

by Wells is his ability to cultivate "new species of Bacterium [...] that infest, and [...] cause, the blue patches upon various monkeys" (Wells 1904a: 16), and this, as everyone would agree, is, in terms of ingenuity, far inferior to inventing, at the dawn of the twentieth century, a means of travelling to the Moon. However, the reader does learn that the Bacteriologist is devoted to science and eccentric, and this is revealed by his wife Minnie who acts as a means for achieving a comic effect in the story, which is something Wells was a master of throughout the early, exuberant years of his writing career.

"The Stolen Bacillus" tells of a visit made by an Anarchist, on the basis of one, probably forged, introductory letter, to a Bacteriologist who, never suspecting the malicious intentions of his guest, accidentally allows him to take from his house laboratory what the Anarchist is made to believe is a tube of the living cholera germ. The Anarchist, who takes advantage of his host's brief exit from the laboratory for a conversation with his wife Minnie, steals the tube and then swiftly departs in a cab intending to empty it into a water supply reservoir and cause a terrifying cholera outbreak in London. Having at once realised that the Anarchist stole his tube, the Bacteriologist hastens from his house, insufficiently dressed, to catch the thief, while the Bacteriologist's wife Minnie, thinking that her husband has gone mad because of his exaggerated immersion in science, sets off to pursue her husband. At the end of this cab race, with each of the story's three protagonists driven in a horse-pulled cab, the Anarchist's tube accidentally cracks, for which reason he drinks up the last drops of the preparation and exits his cab to go mingling with the crowds in the middle of London, believing that he would thus, after his failed attempt at pouring the content of his tube into a water supply reservoir, spread the cholera disease among the Londoners.

However, it turns out that the tube the Anarchist stole from the Bacteriologist did not contain the bacillus of cholera at all, but rather a still not fully tested germ which causes the skin of monkeys and certain other animals to turn blue. Since the preparation the Anarchist ingested seems like a rather harmless thing, as opposed to the devastatingly deadly cholera, the cab race for the salvation of mankind turns out to be a parody, a parody which came to be just because the Bacteriologist, by his own admission, said "like a fool" to his villainous visitor that the cultivated preparation of his new bacteria was Asiatic cholera (Wells 1904a: 16).

One cannot be sure whether the Bacteriologist wanted to make a joke with his unknown guest or simply had a sort of mental blackout and, therefore, momentarily forgot that what he was showing to his visitor was something far less dangerous than Asiatic cholera, but what one can be sure of is the fact that Wells's hero in "The Stolen Bacillus" is a very strange, eccentric man, almost a charlatan, who is obviously unfit to hold in his hands such a great responsibility as is the guarding of living deadly bacteria. There is no doubt that the Bacteriologist is not evil because at one point, while explaining to the Anarchist the destructive possibilities of cholera, he declares that, if it were up to him to decide, he would never keep living cholera bacilli but would instead "kill and stain every one of them in the universe" (Wells 1904a: 2). However, this does nothing to attenuate the fact that the Bacteriologist is clumsy and, essentially, anti-heroical, though not entirely villainous like the Anarchist, because having good intentions as a scientist is no use if one does not know how to prevent malicious application of scientific knowledge. Another thing from the story that points to the weakness of the Bacteriologist's character is the final scene in which the scientist is presented as being half-obediently patronised by his wife who, snobbishly adhering to the Victorian social etiquette and dress code, insists that he should immediately put on his coat: "Put on my coat on this hot day! Why? Because we might meet Mrs Jabber. My dear, Mrs Jabber is not a draught. But why should I wear a coat on a hot day because of Mrs – Oh! Very well!" (Wells 1904a: 16)

It is clear that, through his Bacteriologist as the main character of the comic story "The Stolen Bacillus", Wells conveys his idea that, contrary to the popular belief of many Victorians, there is no certainty that science will always be used for the benefit of mankind, but it is rather as likely to assume that it will, from time to time, be also used for destructive purposes. Given that the hundred and a score years that have elapsed since the publication of this story have demonstrated all the horrors of "scientific knowledge unchecked by ethical sense" (Holt 1992: 239), it would be absolutely justified to conclude that an optimistic outlook and good intentions are, in themselves, not enough, which is quite in tune with that well-known old saying: "The road to hell is paved with good intentions".

Middle Ground Category

The last mad scientist to be dealt with is Mr Hapley, an entomologist from "A Moth – Genus Novo", one of the stories from Wells's first collection of short fiction. In brief, this story reveals Wells's life-long interest in matters of science and it shows to the readers that, regardless of the well-learned and enlightened character of men of science, there is among them as much quarrelling and strife as among any other less intelligent men.

"A Moth - Genus Novo" in itself could be seen as the realisation of a Darwinian idea (notably advocated by Huxley, among other late-Victorian natural philosophers) that all human beings are guided by their selfish instincts, and that, as a result, they inherently strive for self-assertion, and not for any kind of altruistic service to society.⁴ In this story, there is a ruthless academic clash between two entomologists, Mr Pawkins and Mr Hapley. Their war of arguments begins when the former eliminates from his classification of Microlepidoptera a moth species created by the latter. From then on, what takes place is a ferocious verbal combat with the British media attentively covering each of their malignant exchanges, in the form of speeches or published texts, aimed at hurting the opponent and invalidating his scientific opinion. The war ends, at least the first stage of it, when Pawkins, whose health was steadily deteriorating during their drawn-out quarrel, dies, depriving Hapley of the opportunity to land him a final, victorious blow, an opportunity that came about exactly because of Pawkins's seriously deteriorated health and, consequently, his reduced argumentative prowess towards the end of their academic war. Even worse for Hapley, the public opinion, which hitherto enjoyed his rhetoric attacks on Pawkins and cheered at them, now turns against

him and in support of his dead rival, arguing that Hapley, even though he truly did not notice Pawkins's deteriorating health, was, to a large extent, responsible for the latter's death. As a result of overwork and excessive mental fatigue, Hapley decides to go to the countryside and pursue other, non-entomological activities, such as reading fiction, playing chess, and studying diatoms, in order to forget what he believes was his failure in his struggle with Pawkins. Yet, he fails to diverge his attention from his recent unpleasant experience because at one point he sees in his room a moth specimen which, with his discerning entomological eye, he instantly identifies as a new species. He becomes obsessed with this new moth, which he keeps trying but never manages to catch and classify – so much so that he eventually develops a hallucination, given that he begins to see that moth everywhere, even when it is not really there. After he falls into a pit while chasing a non-existent moth and breaks his leg, Hapley first ends up in a hospital, treated by a general practitioner who is totally ignorant of mental illnesses, and then, as a result of not receiving proper care in the hospital, in an asylum, where he is likely to stay for the rest of his days, unable to get rid of the idea that the moth he is seeing everywhere is actually "the ghost of Pawkins":

So now Hapley is spending the remainder of his days in a padded room, worried by a moth that no one else can see. The asylum doctor calls it hallucination; but Hapley, when he is in his easier mood, and can talk, says it is the ghost of Pawkins, and consequently a unique specimen and well worth the trouble of catching (Wells 1904b: 255–256).

It is interesting to note how Wells describes the two confronted scientists, as well as the truthfulness of their respective scientific claims:

On the whole, I fancy Pawkins was nearer the truth than Hapley. But Hapley was skilful with his rhetoric, had a turn for ridicule rare in a scientific man, was endowed with vast energy, and had a fine sense of injury in the matter of the extinguished species; while Pawkins was a man of dull presence, prosy of speech, in shape not unlike a water-barrel, over-conscientious with testimonials, and suspected of jobbing museum appointments. So the young men gathered round Hapley and applauded him. It was a long struggle, vicious from the beginning and growing at last to pitiless antagonism (Wells 1904b: 235).

The description makes it rather clear, as it seems, that Pawkins is better than Hapley as a scientist, whereas Hapley's superiority lies in his aptitude as an orator and mocker of rivals, as well as in his ability to attract the attention of many listeners, especially young ones. The fact that, towards the end of their struggle, Pawkins seems to be on the verge of defeat reveals that Wells was obviously well aware of the fact that it was not always the best scientists who prevailed in the public. The nineteenth century was rife with antagonisms, not only between scientists but also between scientists and clergymen, and what is known of Wells is that he greatly admired his professor Huxley for defying both men of the Church and those scientists who argued in favour of a markedly optimistic, anthropocentric view of evolutionary laws.⁵ Although there is no way to know where exactly Wells found inspiration for his characters of Hapley and Pawkins, it is still certain that, through them, he fictionally presented the bitter conflicts that took place in the intellectual circles of Victorian Britain, conflicts which, as one might suppose, were not always won by those who were scientifically right.

Hapley, as a mad scientist, is obviously an uncommon type because he is neither entirely villainous nor entirely benign. It would be correct to describe him as someone in love with himself, in love with his image of himself as a great scientist, superior to others, and a favourite of the public opinion. He never wanted to verbally bully Pawkins into dving; all he wanted was a taste of full victory and a boost to his self-esteem or even narcissism. Yet, Pawkins's death robbed him of this victory and of his privileged status in the public, so that he ends up being mentally ruined, in part due to his impression of his own failure and in part due to a latent pang of conscience imposed upon him by the fickle public opinion. Hapley's narcissism, or his desire to be held as the finest scientist in spite of his real merits (though it is certain that Hapley is not entirely without merits in matters of science), is what really drove him mad. That is why his madness is very uncommon - he was neither after money, power and harming others, nor was he after knowledge for its own sake. For him, people are only good as long as they serve as targets for his offensive eloquence; in launching rhetoric tirades, he does not mean to kill anyone, but only to feed his insatiable ego. Hapley is therefore not as malignant as Moreau and Griffin, and he is not quite good either, although his conscience awakes after Pawkins's death, but he is rather somewhere in the middle. It is perhaps this indecisiveness of his character apropos of the simple juxtaposition of good and evil that is the root of his madness at the end of the story. In other words, one is not supposed to engage in a fiery polemic if they are not ready to bear all the moral (mental) consequences thereof. That would be a penultimate conclusion from this story, which, by the way, could be brought into connection with two other stories of the early H. G. Wells - namely, "A Slip Under the Microscope", which shares with "A Moth - Genus Novo" the element of academic unfairness, and "Pollock and the Porroh Man", which shares with the tale of Hapley and Pawkins the element of a slowly developing hallucination. The final conclusion from this short work of fiction would be that being a specialised scientist is dangerous business, because it does not only require zealous intellectual devotion to a single demanding field of study but it also often includes fierce competition for being acknowledged by the community, which eventually overstrains the minds of those, mentally, already quite strained people and, basically, leads them to madness.

Conclusion

As argued by Bergonzi in his 1961 study of Wells's early SF oeuvre, "Wells in his early years was far from being an unquestioning positivist. His attitude to science was, in fact, sceptical where it was not ambiguous" (1961: 120). This analysis of six of Wells's early mad scientists is strong evidence of the above-stated argument

of Bergonzi's. The article has shown that the fates of all the mad scientists of Wells's are unfortunate (Moreau, Griffin, Cavor, and implicitly, the Time Traveller die, Hapley develops a serious mental illness, while the Bacteriologist ends up mocked and socially inapt in the eyes of the reader), and that this conveys the message that science is not exclusively a means for achieving a eutopia, as it was widely believed in Victorian Britain, but can also be a tool for self-destruction or even destruction of humanity.

This attitude was, interestingly, advocated by Wells in the early stage of his writing career at a time when the prevalent opinion in the British public was that the world was swiftly changing for the better as a result of scientific development. Soon, however, Wells would change his stance on science and man's use of it because, from the end of 1901 and the beginning of 1902, he would begin to argue that mankind, after all, would be able to vanquish its own selfish, animalistic nature and ensure a path of permanent scientifically based progress for its species. This attitude, interestingly enough, would remain firm in Wells's mind up until the outbreak of the Second World War in spite of the fact that, in the meantime, there was the terrifying First World War and the terrible economic crisis of the 1930s, events which considerably weakened the hitherto confident optimism of the Western world. So, as it turned out, Wells was always a rebel, a wise mind that always saw pessimism where few could see it and always saw optimism where few could see it - in other words, he was a man who always thought the way he wanted himself to think, and not the way others felt it was comfortable and socially acceptable to think. Wells's mad scientists are definitely part of that long story of his changing attitude to the issue of what modern man would be able to make of the world and of his own place in it by means of science.

The article has also shown that, in his early creative years, Wells produced many different mad scientists, different in many traits, but primarily in terms of their respective maliciousness or benignity. Even though Wells gave the world of literature many mad scientists and thus undoubtedly enriched the mad scientist subgenre (within the broad SF literary genre), it would be a gross exaggeration to say that, in his early fictional opus, he exhausted all the types of mad scientists and that none of the writers who came after him ever invented a new type of mad scientist. The case of mad scientists is actually the same as the case of common people – just as there are so many different characters among real ordinary people, so are there innumerable different characters among fictional mad scientists. As just one example of novelties introduced into the mad scientist trope within the SF genre in the years following the early years of H. G. Wells's literary artistic creativity, one might recall A. C. Doyle's Theodore Nemor, the mad scientist villain of the story "The Disintegration Machine" (1929). It would be impossible to entirely identify Nemor with any of the Wellsian mad scientists presented in this article - for what he actually is, is an evil mad scientist selling his extremely lethal inventions for an exorbitant income and without any regard for ethics (a mercenary mad scientist, one might say), and this is a trait that was not found in any of the six mad scientists of Wells's analysed in this paper. However, although Wells did not exhaust all mad scientist types in his early fictional works and although his writing career came after such great creators of mad scientist characters as were

Mary Shelley (she created the first mad scientist⁶ – Frankenstein), Robert Louis Stevenson (Dr Jekyll/Mr Hyde), and Jules Verne (Captain Nemo and Robur the Conqueror), he did succeed in considerably broadening and diversifying the mad scientist subgenre, which is something that he also managed to achieve for the SF genre as a whole.

Notes

- ¹ The phrase "conditionally speaking" is used here because, apart from the mad scientists analysed in this article, there are two more characters in Wells's early opus that have the traits of mad scientists namely, Nebogipfel from Wells's first attempt at writing a novel-length piece and Graham from *When the Sleeper Wakes*. The reasons for not including them in this character analysis are given below, toward the end of the Introduction.
- ² It is worth mentioning that, in accordance with the earlier statement from this Introduction that mad scientists are often defined as conscious wrongdoers, it is Dr Moreau and Griffin, of all the characters from Wells's early fiction, that are most frequently presented as mad scientists. The Time Traveller and Cavor are somewhat less often, though still quite commonly, referred to as mad scientists, whereas the Bacteriologist and Hapley are rarely ever characterised as such.
- ³ It might be of use to bring forth some of Huxley's sentences supporting this claim. For instance, when it comes to the inherent non-morality of nature, as Huxley perceives it, the following is quite telling: "... and the course of nature will appear neither moral nor immoral, but non-moral" (Huxley 1897: 197). When it comes to the omnipresence of pain in everyday life and evolution in general, the following sentence is worth mentioning: "Pain and sorrow knock at our doors more loudly than pleasure and happiness; and the prints of their heavy footsteps are less easily effaced" (Huxley 1897: 73).
- ⁴ For more on this, the following source is to be consulted: Huxley, Thomas Henry (1897) "Evolution and Ethics: Prolegomena". In: *Evolution and Ethics and Other Essays*. New York: D. Appleton and Company, 1–45 (of particular relevance in this respect is page 27 in this source).
- ⁵ Worthy of mention is Huxley's fierce debate with Bishop Wilberforce at an 1860 meeting of the British Association, at which Huxley, at least according to Wells, won a great triumph, not only for himself but also for men of science in their fight against men of the Church (for more on this, see: Wells, Herbert George (1931) *The New and Revised Outline of History Being a Plain History of Life and Mankind*. New York: Garden City Publishing, Co., Inc., p. 988).
- ⁶ Although Mary Shelley's Frankenstein is usually regarded as the first mad scientist (just as her 1818 novel *Frankenstein, or The Modern Prometheus* is commonly seen as the first work of science fiction), it is worth mentioning that the mad scientist trope has its legitimate precursor in the mad alchemist trope. The mad alchemists who predate and, as one might argue, anticipate the numerous mad scientists of the modern SF genre are, according to Roselynn Haynes's study *From Faust to Strangelove: Representations of the Scientist in Western Literature* (1994), to be found in Geoffrey Chaucer's *Canterbury Tales* (c. 1400) and Christopher Marlowe's *The Tragical History of Doctor Faustus* (c. 1592) (Wagar 1995: 114). So, speaking in broad terms, the literary motif of mad scientists or mad natural philosophers is by no means of a recent character because it goes back as far as the late Middle Ages.

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