

Chapter I

Introduction

This research entitled "Evolutionary Consciousness in H.G. Wells' *The War of the Worlds*" compares the nature of the Martian inhabitants to human evolutionary progress. In the novel, the conflict between humankind and the Martians is portrayed as a similar struggle of Charles Darwin's theory of natural selection. It is a survival of the fittest, with the Martians whose longer period of successful evolution on the older Mars, had led them to develop a superior intelligence able to create weapons far in advance of humans on the younger planet Earth, who have not had the opportunity to develop sufficient intelligence to construct similar weapons.

The current research tends to prove the hypothesis that trained as a scientist, and well aware of evolutionary theory, Wells is able to relate his experiences of struggle to Darwin's idea of a world of struggle but he sees science as a rational system, that can be extended beyond traditional ideas of race, class and religious notions; which gives his fiction a critical edge that challenges the use of science to explain political and social norms of the day.

The War of the Worlds is an early science fiction novel, describing an invasion of late Victorian England by Martians using tripod fighting machines, equipped with advanced weaponry. It is a seminal depiction of an alien invasion of Earth. In such situation, the research has made a deliberate choice to view the evolutionary awareness with the perspective of Naturalism: Theory of Evolution. Perhaps, it won't be the exaggeration to say that the theoretical modality called naturalism would be the best one for the better analysis of the text and also to give the due credit to it.

Biographical Sketch of Author

Herbert George Wells was born in 1866 in Bromley, Kent, a few miles from London, the son of a housemaid and a gardener. Basically, he was a student of science but he kept on changing his job throughout his life. As a poverty beaten fellow, he began his career as a draper, then as a tutor, as an assistant of a chemist and then as a teacher. His writing career began with his essays which he wrote for educational and other journals.

In the summer of 1893, a serious haemorrhage of the lungs forced him to take a long rest and to adopt a completely sedentary occupation. Around 1891-92, he had contributed essays to various educational and other journals. In 1893, while he was recuperating from his illness, he began to write short stories, essays and reviews for periodicals and magazines. The novel of scientific romance written in 1895, entitled *The Time Machine* established his reputation as a writer of extraordinary power and imagination. From the subsequent year, his series of a great scientific romances: *The Island of Dr. Moreau*, *The Invisible Man*, *The War of the Worlds*, *The First Man in the Moon* etc., appeared respectively.

After completion of his schooling, he studied physics, chemistry, geology, astronomy and biology for three years. He studied biology under the great scientist and a professor called Thomas H. Huxley. In October, 1890, he took a B.Sc. degree with first class honours in zoology at London University. He took more interest in science for it was the period when the discipline began to rise to its prominence.

The scientific romances like *The War of the Worlds* were the result of the fusion of two entities: his interest for reading large number of books and for being a student of science. As a boy, he inherited a taste for reading books from his father. He freely indulged himself at the local Literature Institute and in the library that used to

lend books. Reading literary books enabled him to create imaginary and fantastic hypothesis which seemed to have no scientific ground reality. Moreover, he laboured to support it with premises of science to make the hypothesis look like a plausible incident.

The beginning of the twentieth century brought new changes in him as well as in his works. He shifted from the scientific romances to the works of sociological problems. *Anticipations*, published in 1901, was his first volume of essays on sociological problems. *The New Machiavelli* of 1911 marked a turning point from when sociological and ideological messages dominated Wells' writing. Throughout the last decades of his life, he was vehemently propagating his idea of a 'World State' which according to him was the only alternative to the man's return back to barbarism and self annihilation.

Wells supported the First World War thinking that it was the 'War to end War'. But the Second World War to him was the confirmation that mankind has indeed lost the mastery over the forces of its own making and that it was heading towards doom. His mood of despair can be seen in his last work *Mind at the End of its Tether* published in 1945. The major thesis which he expounded during the last two decades of his life was that human race must adopt itself to the material forces it has created. And year after the appearance of the book, he died on August 13th, 1946 at home.

Though he involved himself in various sorts of professions and wrote different types of writings, he is best remembered for his literary productions with scientific flavours. Above all sorts of writing, his scientific romances have left long-lasting impacts on readers.

Mutation Towards Maladaptation

The War of the Worlds was generally received very favourably by both readers and critics upon its publication. The novel has been variously interpreted as British imperialism, Darwinism, and generally Victorian fears and prejudices. There are some critics who have prescribed their views about the text. At the time of publication it was classed as a scientific romance. It has influenced much literature and other media, spawning several films, radio dramas comic book adaptations, a television series, and sequels or parallel stories by other authors.

Josh Lacey acknowledges that the current novel is a good example of science fiction but the effect of it hardly exceeded a century. He says “It may have been one of the pioneering works of science fiction, but a century later, the science seems silly and the fiction is old-fashioned in all the worst way” (18). He further criticizes Wells for his inability to delve down or penetrate into the psychological insight of the total humanity. So he says:

However, the problem is deeper than mere familiarity. Wells seems to have had no interest in psychological insight or development. He has a straight forward moral to offer-science without humanity equals pain and destruction- but he makes no effort to investigate or balance his ideas. He favours realness over complexity. He prefers action to thought. The jokes are lame and much of his writing is careless. (20)

The War of the Worlds belongs to a tradition of "imaginary war fiction" that had been given new life in England by "The Battle of Dorking," a story written by Lieutenant-Colonial Sir George Tomkyns Chesney and published in *Blackwood's Magazine* in 1871, then reprinted as a pamphlet. The story imagined the invasion and conquest of

an unprepared England by Germany and warned England about the dangers of military weakness. It became so popular and such a topic of discussion that the Prime Minister of England made a speech about it, criticizing this magazine story for unnecessarily alarming citizens and threatening an attack on the budget.

But if it was influential, it wasn't influential enough. England went unprepared into two world wars. And it wasn't prophetic either. England was never conquered, although it may have come close in World War II.

But it was popular. Earlier fiction of this kind had emphasized politics; Chesney, focused on weapons and military strategy. The change proved so appealing that responses and imitations arose. It created a new genre of stories and novels. When they were published in other countries, that country was depicted as coming under attack. Commenting on the novel, James Gunn's asserts:

The War of the Worlds differed by making the enemy not simply a foreign power but an alien world. This shifted the argument from the need for a nation's military preparedness to a question of the survival of the human species. It would become the basic theme of all science fiction. (202)

Wells got the idea for the novel, as he recalled, from a chance remark by his brother Frank as they were walking in the peaceful countryside of Surrey: "Suppose some beings from another planet were to drop out of the sky suddenly and begin laying about them here!" Wells went on to say, "Perhaps we had been talking of the discovery of Tasmania by the Europeans – a very frightful disaster for the native Tasmanians!" As English scholar I.F. Clarke has pointed out:

The War of the Worlds is about three kinds of wars. It is about the kind of war Europeans had visited upon less civilized countries during the

great imperial expansion in the 1880s and 1890s, with the English now in the role of the backward Tasmanians and other less “civilized” peoples. It is about the kind of natural biological warfare in which the fittest survive. And it is about the kind of war that might be experienced if science turned its laboratories over to the task of producing the most advanced and destructive weapons. (qtd. in Gunn 202)

It also is about a fourth kind of war: the war to control the basic soil from which the human species has sprung, the Earth itself. It was easy in the 1890s to think of Martians as a threat. The astronomical speculations of astronomer Percival Lowell had presented a popular image of a Mars that once had been a thriving planet but having lost much of its water was trying to postpone extinction by a huge "canal" building project to carry water from the poles to the equator. An older, dying civilization might well envy the moist, green Earth.

The aforementioned remarks of Wells’ successfully locates the time when it was written. The novel was well celebrated also for the reason that it was written in the transitional period when the influence of magic and superstition was fading with the growing impacts of science. He also writes few words on the grandeur of its writer that reads:

In each of H.G. Wells’ stories there is only one impossible hypothesis. He argues the plausibility of that hypothesis in the language of the scientist. In bygone days magic was accepted and a spell was sufficient to make invisibility plausible, in these days there is no magic, but we are willing to accept a phenomenon properly explained, whether we

understand the explanation or not. Having made the one hypothesis, it is thrown into an ordinary world. (12)

As Wells was a good student and tutor of science, and also was mentioned by T.H. Huxley who was called Darwin's Bulldog for his life time, he had a good range of knowledge in science. Frank Wells sees H.G. Wells' grandeur in his ability to create impossible hypothesis and rendering them to make them look like plausible in the language of science. Those hypothesis at first sight may look futile having no connection with the ordinary world, however, he never fails to make them connected.

Mary E. Skorburg, in her dissertation in Skidmore College, deals with the novel's far reading impact. While doing so, she compares it, with Wells' other well celebrated works like *The Time Machine*, *The Invisible Man*, and *The First Man on the Moon*, all of which deal with science and fantasy. She remarks:

The novel has fired the imagination of many people of all ages and will continue probably to do so as long as the mind of man continues to retain the ability to think hypothetically. Although *The War of the Worlds* is more a work of fantasy than a science fiction, it deals with the hypothetical asking if one could be invisible what then? It is on the same [...] that Alfred Alder builds his theory of individual psychology. (85)

Skorburg appreciates this work not for having any utility to the common people living on the earth but for broadending the human imagination eternally. She interrogates Wells' proposition that man could be invisible through science; the idea of invisibility is no more than a fantasy. So this work, for her, is nothing more than the work of fantasy. It can't be a science fiction. Reader can't have any pragmatic values from the novel however; they can be facilitated with aesthetic one.

Likewise, another critic called Edward Gorey after reading the book *The War of the Worlds* by Wells, questions the utility of science to society and also to humanity as a whole. He opines:

When massive, intelligent aliens from Mars touch down in Victorian England and threaten to destroy the civilized world, humanity's, vaunted knowledge proves to be of little use. First Published in 1898, H.G. Wells' masterpiece of speculative fiction has thrilled and delighted generations of readers, spawned countless imitations, and inspired dramatizations by such masters as Olson Welles and Steven Spielberg. *The War of the Worlds* is a fantasy that is both starting up-to-date, and in touch with the most ancient of human fears. (260)

In 1960, Edward Gorey prepared a set of his inimitable pen-and-ink drawings to illustrate a new edition of Wells' *The War of the Worlds* for the legendary Looking Glass Library. Characteristically quirky, elegant, and entrancing, Gorey's visual take on Wells' seminal tour de force has been unavailable for close to fifty years. This special hardcover edition from classics brings back for today's readers a richly rewarding collaboration between two modern masters of all that's wonderful and strange.

When *The War of the Worlds* was published in January 1898, Wells was famous, respectably remarried, and wealthy. If *The Time Machine* had been his first real book, *The War of the Worlds* was something like his eleventh, though he was already so prolific that it is hard to keep track with any exactitude. *The War of the Worlds* was not begotten from years of agonizing about human destiny, but from a chance remark that Frank Wells made to H G Wells as the brothers were walking through well manicured and unutterable self-satisfied surrey: "Suppose some beings

from another planet were to dropout of the sky suddenly [. . .] and begin laying about them here!" (193). It was a thought that must have instantly appealed to a clever, angry young man of Swiftian disposition. And though Wells lived to see the break down of the rigid social order of his youth, vicious condescension to those of the lower orders who dared publish a book was still common in 1898. Danahay appends a review.

The War of the Worlds in the august Athenaeum in which the author is castigated for his regrettable wall owing in the "cheap emotions of a few bank clerks and newspaper louts" as they stream from Martian – controlled London. But then how could a cockney upstart know how to flee for one's life in a gentlemanly manner? (232)

According to Lowell, Mars was an older planet than Earth by the then prevalent nebular hypothesis; Wells mentions this fact in each of the first three paragraphs of *The War of the Worlds* (42). For Lowell, "evolution on [Mar's] surface must be similarly advanced" (246). Wells, approaching the issue from a Huxleyan perspective, saw that "older" also implied that Martian life-forms might have grown more degenerate, its atmosphere less hospitable than Earth's. Lowell's "planet wide" Martian system of canals presupposes an advanced technology at the behest of a will unweakened by terrestrial style factional politics; and so emerge Wells' Martians with their intellects vast and cool and unsympathetic regarding this earth with envious eyes' (41). On the other hand, Wells saw that Lowell's idea that Martians would be "twenty-seven times as strong as we" (246) thanks to their lower gravity was totally misleading when it come to describing how Martians might move unaided on Earth.

In *The War of the Worlds* the space aliens that briefly conquer and transform the Home Countries are really time travelers exiled from the far future who are

determined to reconstruct their alien environment on Earth at the expense of their "primitive" ancestors, the Victorians. As the latter diverged into Eloi and Morlocks, so the originally human Martians long ago split into two species, one mentally advanced but physically degenerated, the other still humanoid but mentally vacant, useful only to provide living blood as nutriment for the vampire sexless brains of their Men of the Year Million (203).

When everything else is so true and exact, the mind finds it difficult to be always rebelling against the impossible Martians. We shall not attempt here – it would not be fair to Wells' thrilling book – to tell the story of the Martian war. We may, however, mention one point of detail. Many readers will be annoyed with Wells for not having made his Martians rather more human and so more able to receive our sympathy of comprehension, if not of approbation. A little reflection will, we think, show that this was impossible. This is the age of scientific speculation, and scientific speculation, rightly or wrongly, has declared that if there are living and sentient creatures on Mars they will be very different from men. Stover's interpretation of the novel is:

The War of the Worlds is, basically, that while the Martians might appear to be evil, they are "by no means monstrous in the eyes of their creator. They are rather agents of his 'Religion of Progress' in his vindictive 'War with Tradition'" (3). The parenthetical referring us to Wells' 1927 book *Democracy Under Revision*, is typical of Stover's citations: there is no further contextualization of the passage from the 1927 book, which we are to assume is directly relevant to a reading of an 1898 novel. (249)

Leon Stove's edition of *The War of the Worlds* promotes a very different view of Wells. Its format is, on the surface, not very different from Ruddick's: the volume consists of a lengthy introduction, an annotated text of the novel based on the first edition, and a series of appendices. Yet there are vast differences between those two editions. Stove's wide – ranging, often digressive, insistently polemical introduction is confusingly written and insofar as I can follow it, propounds a fundamentally flawed interpretation of the novel; his annotations are not restricted to the clarification of passages but are extensions of his argument; and the appendices include not only Wells' 1893 *Pall Mall Gazette* article "The Man of the Year Million", Wells' preface to the Atlantic Edition of the novel and the conclusion of Percival Lowell's *Mars* (1896) – all helpful adjuncts to the novel's text – but also three pieces of less obvious relevance.

The book won't receive its due credit until and unless it is analyzed from a new perspective known as naturalistic point of view. Wells has evidently studied and attempted to imitate the methods of Jules Verne in this account of an attack from Mars on the earth. But while perceiving that Jules Verne's plausibility comes largely from a scrupulous exactitude in matter-of-facts details, he has not seen that matter-of-fact details need not necessarily be vulgar and commonplace. There is too much of the young man from Clapham attitude about the book; the narrator sees and hears exciting things, but he has not the gift of making them exciting to other people. He reminds one of the man of whom it was said that he had travelled to more interesting places and talked with more clever people than the rest of the world, but has really seen and heard nothing for himself. Basil Williams in his unsigned review in *Athenaeum* says:

The idea of the invasion from Mars – which, by-the-by, Mr. Wells says he owes to somebody else – is magnificent, and the machine and

weapons used by the Martians for devastating the earth must have been stupendous but the whole business fizzles away in the most disappointing fashion. For example, what a splendid opportunity is lost in the description of the exodus from London! (67)

One thinks what a writer with a great eye for poetical effect like Mr. Meredith would have made of such an idea; whereas Wells is content with describing the cheap emotions of a few bank clerks and newspaper tours, and the jostling in the road which might very well do for an account of a Derby crowd going to Epsom. Wells must look carefully to his writing; he began well, but he evidently writes too much now, and is too apt to trust solely to the effect of his blood-curdling ideas, without taking the trouble to give them distinction.

The fact that Wells has been able to present the planet Mars in a new light is in itself a testimony to originality. The planet has been brought within the world of fiction by several writers, but in *The War of the Worlds* an aspect of it is dealt with altogether different from what has gone before. We have had a number of stories of journeys to Mars, but hitherto, so far as we remember, the idea of an invasion by inhabitants of Mars has not been exploited. Astronomers can make out just enough of the planet's surface to justify the conclusion that water and ice or snow exist there, and that the land areas are at times traversed by a network of canals or channels more or less enigmatical in origin. According to Mr. Percival Lowell, who made an exhaustive study of Mars in 1894:

These canals are really belts of fertilized land, and are the only habitable tracts on Mars, the remainder of the land surface being desert. The view that the Martians – it is less unreasonable to think that Mars is inhabited than that it is not – would look towards our earth with

longing eyes it is thus quite within the bounds of legitimate speculation; and the fact that Wells put it forward before Mr. Lowell had brought before the attention of British astronomers the reasons for thinking that Mars at the present time is mostly a dreary waste from which all organic life has been driven, is a high testimony to his perceptive faculties. (72)

Then, as to the intellectual status of whatever inhabitants there may be on Mars, there is every reason for thinking that it would be higher than that of man. On this matter of the following words, written by a distinguished observer of Mars. Antoniadi- in July last, give evidence to the view of the Martians presented by Wells. Referring to the origin of the canal system, M. Antoniadi wrote:

Perhaps the least improbable – not to say the most plausible – clue to the mystery still attaches to the overbold and almost absurd assumption that what are witnessing on Mars is the work of rational beings immeasurable superior to man, and capable of dealing with thousands and thousands of square miles of grey and yellow material with more ease than we can cultivate or destroy vegetation in a garden one acre in extent. (73)

Naturally, the view that beings immeasurably superior to man exist upon Mars is repugnant, but we see that astronomers are being forced to accept it as the easiest method of explaining the phenomena observed. Wells' idea of the invasion of the earth by emigrants of a race possessing more effective fighting machinery than we have is thus not at all impossible; and the verisimilitude of the narrative appeals more strongly, perhaps, to scientific readers than to others not so familiar with accepted opinion upon the points deftly introduced.

As John Huntington points out, Wells inherited an abiding concern with “the conflict between evolutionary and ethical imperatives” from his teacher T.H. Huxley(8). Supplementing the Darwinian emphasis on natural selection with the agency of human reason Huxley “repudiates the order of nature in favor of that rational, ethical civilization” (15). Wells tempers Huxley’s “ethical heroism” to “value free” opposition between natural evolution and ethical civilization such that “it takes the two together to define humanity” – if civilization’s “ethical attainments” counter nature’s moral regression, nature’s energetic wholeness counters civilization’s decadent hypocrisy and formality (16).

The conflicting demands of ethics and evolutions structure the narrative dynamics of *The War of the Worlds* as they split Wells’ narratorial self into the ethical voice of civilization and the deterministic, Darwinian evolutionary voice of imperialism/colonialism. The traumatic invasion of England by Martians is the figuration in the text of the return of the truth of the trauma of colonialism. Such a recognition-bringing voice from the locus of the other is addressed to the ethical self, whose voice is audible in the beginning and conclusion, framing sections of the narrative. Anticipating readers’ moral shock regarding the Martian mission to colonize the earth, the narrator says:

And before we judge of them too harshly we must remember what ruthless and utter destruction of our species has wrought, not only upon animals, such as the vanished bison and the dodo, but upon its own inferior race. The Tasmanians, in spite of their human likeness, were entirely swept out of existence in a war of extermination waged by European immigrants, in the space of fifty years. Are we such apostles of mercy as to complain if the Martians warred in the same spirit? (9)

Similarly in the penultimate chapter, the narrator returns to his study, after the Martian attack is over, to find his “abandoned arguments”. “It was a paper on the probable development of Moral Ideas with the development of civilizing process” (176). Such comments and details are set in the text as interpretive frames and suggest the norm of ethical civilization.

Thus, *The War of the Worlds* is an early science fiction describing an invasion of late Victorian England by Martians using tripod fighting machines, equipped with advanced weaponry. It is a seminal depiction of an alien invasion of Earth. To explore it, the research depends on theoretical modality called naturalism.

Chapter II

Naturalism: Theory of Evolution

Naturalism is a theoretical movement that sometime claims to give an even more accurate depiction of life than realism. Naturalism as a critical theory makes the special selection of subject matters and its methods of rendering them too are distinct. Characters in naturalistic writings are greatly influenced with the genes they inherit from their parents. Similarly, the environment or surrounding where they are living in leaves an everlasting impact on them. This movement is the product of post-Darwinism biology in the nineteenth century which holds the proposition that a human being exists entirely in the order of nature and therefore, such a being is merely a higher-order animal whose character and behavior are entirely determined by two kinds of forces: heredity and environment. Naturalistic writing is more objective. It means human beings have to adopt themselves in the order of nature for their survival and harmonious existence.

Biological and Environmental Evolution

Naturalism as a mode of philosophy has its foundation mainly in the books like *The Origin of Species* and *The Decent of Man* by Charles Darwin. These books were the declarations of a new era in the scientific and philosophical perspective to see man. Darwin hypothesizes the origin of species and its development to the highest order. The effect of environment, heredity, society has brought man slowly to the competition and co-operation. It rightly investigated the true nature of mankind upon which every literature is based.

The revolution in biology spurred by Darwinism is premised on new concepts of man and nature which has remolded the profile of humanity and caste of society. The definite act of creation was replaced by indeterminately long natural process. If

man has the essence of a beast, how can he possess the immortal soul, destined for reward or punishment? Man's relation to nature got new meaning. He is not a fallen Angel but an ape. Such innovation brought a new dimension to the literature as well as philosophy. Morse Peckham defines evolutionary theory of Darwin as:

A scientific theory about the origin of biological species from preexistent species, the mechanism of that process being an extraordinarily complex ecology which can be observed only in fairly small and artificially isolated instances. It reveals a world not of accident precisely but rather one in which "accident" becomes a meaningless problem. (304)

The evolutionary consciousness represents that evolution proceeds in a linear manner to produce diverging species. As a whole, the evolutionary ideas brought a pessimistic outlook that man's volitions are determined by pre-existing circumstances. Biological and materialistic determinisms maintain that our voluntary acts find their sufficient causes in the physiological conditions of the organism. John Herman Randall Jr comments on the influence of nature:

[. . .] It forces moral choice on man, inspires them to creative works of art [. . .] man's searching intelligence, his problems of moral choice and obligation, his ideal enterprises of art, science and religion are all inescapable parts of nature; they are all ways in which man has learned to encounter and cooperate with his world. (318)

Evolution by natural selection has led gradually to the existence of human beings with minds. We have struggled millions of years to be human, to be a special kind of animal. Darwin himself remarks: "The moral nature of man has reached its present

standard, partly through the advancement of his reasoning powers and consequently of a just public opinion" (qtd. in Appleman 560).

Natural Selection

Darwin is said to have discovered the laws of evolution, according to which the universe is full of struggle and elimination. New species come into existence by a process which is described as accidental. Who could vary among its individuals under the changing environment are selected for survival. They are the fittest. Environment plays greater role in the extinction of the species. That is to maintain the balance. Nature decided who should live and who should die. T.H. Huxley elaborates that "the struggle for existence tends to eliminate those less fitted to adopt themselves to circumstances of their existence. The strongest, the most self-assertive, tends to tread down the weaker" (327).

Individuals struggle for food, territory and sex. According to the physical strength, the tussle is fierce. Chance and coincidence play determining role sometimes. Who gets succeeded survive and the failure means the extinction. The fittest also has to face the contrast challenges from the environment. If he becomes able to cope with that, changing himself slightly, then he has good chance. Darwin writes:

A grain in the balance may determine which individual shall live and which shall die which variety or species shall increase or finally become extinct. As the individuals of the same species come in all respects into the closest competition with each other, the struggle will generally be most severe between them [. . .] The slightest advantage in certain individuals, at any age or during any season over those with which they come into competition, or better adaptation in however

slight a degree to the surrounding physical conditions will in the long run turn the balance. (115)

Every animal capable of self-defense fights severely when it has no means to escape. The fighters gain an obvious advantage of its behaviour. Sometimes the passive and patient one can gain a lot when the fierce fighters are destroyed by each other. If the two stronger and vigorous rivals are involved to possess the territory or the desired female, the output is good. Who can charm the female and show courage and vigor is benefited. Unless the social organization demands close association, the individuals spread far away as their habitat. Konrad Lorenz gives an analogy of that [. . .] "if in a certain area, a large number of doctors, builders and mechanics want to exist, the representatives of these professions will do well to settle as far away from each other as possible" (433).

Variation occurs between individuals of the same species and under differing environmental conditions. Great numbers of mortality in nature is accidental and non selective. Those alone survive who have something extra advantage over other caused by slight peculiarity capable of turning the scale in their favor. Such variation or modification are produced by the alterations in the environment or differences in hereditary constitution or both. Sir Charles Lyell writes " [. . .] the surrounding conditions in the organic and inorganic world slowly alter in the course of geological periods, new races which are more in harmony with the altered state of things must be formed in a state of nature" (242).

Evolutionary morality says there should be open competition for all men and the most able should not be prevented by laws or customs from succeeding best and rearing the largest number of off-spring. One has to drive away or kill the rival and

has to be selected by the female for sexual selection. Darwin writes that the sexual struggle is of two kinds:

[. . .] one, it is between individuals of the same sex, generally the males in order to drive away or kill their rivals, the females remaining passive whilst in the other the struggle is [. . .] to excite or charm those of the opposite sex, generally the females which no longer remain passive, but select the more agreeable partners. (204)

The mechanism of evolution is blind and automatic and unconscious. The close crowding of many individuals in a small area brings violent reaction which may be released in aggressive behavior. As the demonstration of that is strictly prohibited in moral and ethical boundry, that remains suppressed. Peter Kropotkin remarks:

It is the unconscious recognition of the force that is borrowed by each man from the practice of mutual aid [. . .] and of the sense of justice, or equity which brings the individual to consider the rights of every other individual as equal to his own. (qtd. in Appleman 546)

In spite of the immense warfare and extermination there is also mutual support and defense. Sociability is as much a law of nature as mutual struggle. After man's emergence onto life's stage; faith, courage, truth, ethics were introduced. Darwin writes "Social animals are impelled partly by a wish to aid the members of their community in a general manner" (201).

Environment and Adaptation

Natural selection operates to fit the individuals to their environments. Every individual wants to be the fittest, but that depends on adaptation which is the hallmark of Darwinism. Even the slightest weakness can bring crisis in his existence. But sometimes they willingly sacrifice themselves by performing altruistic acts to benefit

others. Such altruism is favored. Kropotkin says in this regard that "those animals which acquire habits of mutual aid are undoubtedly the fittest. They have more chances to survive and they attain, in their respective classes, the highest development of intelligence and bodily organization" (411).

It is after all biological adaptation to environmental conditions, so that the species can survive through sufficient sources of food and place in nature. There are continuous disputes. Nature always wants to get rid of the weak and poor to make room for the better. Both mental and physical characteristics are examined and the radical defects lead to extermination or extinction. Who loses his life because of stupidity and idleness is in the same class as the victims of weak malformed structure. All are equally put on trial. If they are sufficiently complete to live, they live otherwise die, they should die. John Dewey also accepts that and denies the existence of supernatural: "If all organic adaptation are due simply to constant variations which are harmful in the struggle for existence, that is brought about by excessive production, there is no call for a prior intelligent causal force to plan and preordain them" (310).

We can enquire the effects of environment upon our mental, physical, half-conscious, half-instinctive, intellectual preferences which determine our behaviour and thought. Environment creates problem as well as ease for survival. One has to modify himself according to the demand to adapt himself to the changing and even hard conditions of life. Regarding the effect on human psyche, Konrad Lorenz writes: "Hunger, anxiety, the necessity to make difficult decisions, overwork, hopelessness and the like all have the effect of sapping moral energy, and in the long run, making it break down" (437).

Nature is an indifferent force acting on the lives of human beings. Hereditary characteristics also affect human behaviour. People have different ways of thinking and behaving because of the genetic differences preserved by racial, cultural discrimination and different conditions. Margaret Mead remarks: "I have considered the specific cultural conditions under which a given innovation is made possible as well as the way in which period-the state of knowledge and the types of existing interaction among people-provides a context in which clusters of individuals act" (424).

If man is victim of heredity and environment, and a creature of brute compulsion, he is not a free and responsible agent for his action. So, all are compelled to seek joy of life in its violent and cruel struggles. Man is driven by the psychological intensity and unconscious demands, too. Sir Julian Huxles says about the biological determinism: "[. . .] a character is always the joint product of a particular genetic composition and a particular set of environmental circumstances" (248).

Culture, religion determine man's choice and behavioural pattern. The psychological circumstance within different cultural periphery have obvious impact upon man's physical behaviour. Margaret Mead comments: "a cluster of interacting individuals who within the special conditions provided by period and culture make choices which set a direction – a channel – in which events tend to flow until other points of divergence are reached" (424).

Charles Darwin developed the new perspectives to look at we human beings that contradicts with the contemporary views imposed by Christianity. It challenged the Christian notion that man is the product of sin. Jostein Gaarder, in this context, in his book *Sophie's World* writes:

By naturalistic we mean a sense of reality that accepts not other reality than nature and the sensory world. A naturalist therefore also considers mankind to be part of nature. A naturalistic scientists will exclusively rely on natural phenomena – not on either rationalistic suppositions or any form of divine revelation. (406)

The view of Gaarder that, not the divine revelation is the cause of human existence, but human beings are the direct descendent of primitive apes, is much more scientific than the religious supposition because Darwin has accumulated some solid evidences to prove his idea. Richard Tarnas adds, "It is how less certain that the man came from God than that he came from lower forms of primates" (288). Likewise, Charles Van Doren remarks, "It was unthinkable that man had to trace his descent from brutes and especially from the higher apes, with their dirty habit that they did not try to hide when you visited them in zoos" (281). It was a great shock to the western metaphysics. Whether the people accepted it or not, but it is bitter reality which they have to agree with. After his profound observation and investigation, Darwin in *The Origin of Species* "advanced two theories or main theses: first, he proposed that all existing vegetable and animal forms were descended from earlier more primitive forms by way of biological evaluation. Secondly, that evolution was the result of natural selection" (409).

His locus of study in the book, revolves round 'evolution' and 'natural selection'. 'Adaptation', 'evolution' and 'natural selection' are the entities that are twined together in such a way that they can't be studied individually isolating one from others. Dr. L.K. Sharma's book entitled *A Guide Book of Science* defines adaptation as:

All structural, physiological and behavioural peculiarities of an animal which enable it to in its changed environment may be known as adaptations. Adaptation thus refers to some sort of harmony between an animal and its environment. The properties of an organism which enable it to adjust itself to some new environmental conditions is called adaptability. (163)

To adapt, any animal must mould itself structurally, physiologically and behaviorally fit to its environment so that it can survive. It is the role of nature what Darwin calls 'survival of fittest'. The first and the foremost requirement to evolve is to survive. That creature only can survive which is the fittest one. Which animal is fit or unfit, is proclaimed by nature. It decides which creature has the most potentiality to live. Such selection made by nature is known as 'natural selection'. In other words, it can be said that nature makes the selection of the creatures the most fitted to adaptation. The weaker are shown at the verge of extinction. The chosen creatures evolve for they know how to change ownself with the change in climate environment, culture and society.

Environment plays a significant role in the selection and extinction of the species. Nature decides who should live and who should die. T.H. Huxley defines the struggle of the species as, "The struggle for existence tends to eliminate those less fittest to adapt themselves to circumstances of their existence. The strongest, the most self-assertive, tends to tread down the weaker" (327). Huxley's statements affirm the notion that in a battle of struggle for existence, the strongest species attempt to eliminate the less fitted one.

Analogizing this situation with that of the various professionals living in a society, Konrad Loreuz on his text *On Aggression* remarks, "[. . .] if in a certain area,

a large number of doctors, builders and mechanics want to exit, the representatives of their profession will do well to settle as far away from each other as possible" (433). From the point of view of the consumers, if many same or similar professionals settle down within a same territory, these consumers get chance to consume the services cheaper and better. But for these professionals it is a curse since they are in more fierce and the hardest battle. Reflecting on such situation, Darwin concludes, "The more bitter the struggle for survival, the quicker will be the evolution of men species, so that only the best adapted will survive and the others will die out" (415).

Chance and coincidence too, play determining role in human life to a greater extent. So they are also the parts of naturalistic literature. They decide whether an individual would survive or extinct. Characters anticipated by them are most likely to survive. However, the fittest too has challenges and threatens from the environment. If he is able to cope with those challenges and threatens tactfully, and changes himself as the environment demands, then he has maximum possibility to survive otherwise not. So Darwin says:

The balance may determine which individual shall live and which shall die-which variety or species shall increase or finally become extinct. As the individuals of the same species come in all respects into the closest competition with each other, the struggle will generally be most severe between them. [. . .] The slightest advantage in certain individuals, at any age or during any season over those with which they come into competition, or better adaptation in however slightest a degree to the surrounding physical conditions, will in the long run turn the balance. (115)

Intimacy with Science

Naturalism has very intimate relationship with science. It is because it emerged when science began to raise its head against religion. Under the domination of religion, everything and every event used to be interpreted in terms of religion. According to Genesis, Adam and Eve were thrown down to the earth from the heaven because they appeared to be disobedient towards God's command. It was accounted as the sin of human beings. Since then, human beings were taken as sinners. The religion, especially, Christianity forced people to compensate for the sins which men actually have not committed. In such situation, science liberated men from being the sinners. So, Tarnas states:

By the time such studies were joined by the Darwinian's theory's discrediting of the creation narrative found in Genesis, the validity of scriptural revelation had become entirely problematic. [. . .] The thrust of evolution was not one of spiritual transfiguration but of biological survival. (304)

The shifted relationship of human beings from God to the nature opened the way for novel interpretation of men. The origin of men, as it is assumed is not the God, nor the God is the one who sustains them. It is the nature or environment, where the origin of men lies and which sustains them. Men's relation with the nature began since ages. Science of biology believes on the process of evolution. Human beings descended from primitive apes. These apes had their own type of harmonious relationship with nature. That's why, they survived. We human beings are the modified versions of them. Nature wanted some changes in them and brought them to our stage. Some organs of them like tails disappeared. We do not have tails anymore. We do not have any utility of them. This facts demonstrates that nature is much greater and more

powerful than the human beings. They can't surpass the nature, nor can they defy its laws. In this regard, Emile Zola, in his essay *The Experimental Novel Cites 'L'*

Introduction by Claude Bernard which reads:

Man then perceives that he cannot dictate the law to nature because he doesn't possess in himself the knowledge and the criterion of exterior things he realizes that in order to arrive at the truth he must, on the contrary study the natural laws and submit his ideas [. . .] the criterion of facts. (652)

This citation made by Zola is to anticipate the notion that naturalism is the "study of nature and of man" where there is unequal relationship between these two entities (653). Human being is nothing in front of nature. He is very much feeble and helpless. He can't impose his might and right upon it. Rather if he wants to survive and wants to be selected by nature, he should study the natural laws. In doing so, he can get chance to learn some inevitable, secrets of the nature which would ease him to adopt himself within the realm of nature.

Emile Zola, a French naturalist doesn't limit spirits of naturalism within the realm of nature and man, and their relationship to each other. He also tries to reflect the spirits in fiction what he called 'naturalistic' or 'experimental novel'. He, in the following extract attempts to show growing influence of science in the then literature:

The experimental novel is a consequence of the scientific evolution of the century; it continues and completes physiology, which itself leans for support on chemistry and medicine; it substitutes for the abstract and metaphysical man for the study of natural man governed by physical man for the study of natural man, governed by physical and natural laws; and modified by the influence of his surrounding' it is in

one word the literature of our scientific age, as the classical and romantic literature corresponded to a scholastic and theological age.

(649)

The above mentioned remarks transparently explain the relationship between science and naturalistic literature. Through Zola, we come to know that the affinity of naturalistic literature with science is similar to that of the affinity of romantic literature with abstract and supernatural elements. Naturalistic writers do not see any utility in idealistic writers and idealistic contents. They do not have any earth – trodden value. Their contents are just the products of their imagination. The characters of such writings are unpractical and have no resemblances with real human beings. It is because there is no infusion of scientific spirits. Thus, being dissatisfied with such features of idealistic literature, naturalistic authors attempted to substitute the abstract and metaphysical characters and ideas with the natural ones who are influenced by physical, environmental and natural laws.

Human Nature and Accident

Rightly developed individual is the supreme product of evolution. In this imperfect world, he is the means by which the species emerge to a hopeful phase. It is the part of price, we have to pay for being a man. On the one hand, tolerance and kindness are virtues but on the other, ruthless suppression of the opponents is biological necessity. Stephen Jay Gould writes: "Violence, sexism, and general nastiness are biological since they represent one subset of a possible range of behaviours. But peacefulness, equality, and kindness are just as biological" (464).

Darwin's universe is not founded on design or god, but on accidents and natural selection which is a self-regulating mechanism. The world is in a process of

change, but without any prior intelligence. Man is seen to be part of nature. Bertrand Russell has elaborated that scientifically:

"Man is the product of causes which had no provision of the end they were achieving; that his origin his growth, his hopes and fears, his loves and his beliefs, are but the outcome of accidental collocations of atoms, that no fire, no heroism, no intensity of thought and feeling can presence an individual life beyond the grave [. . .] all [. . .] are destined to extinction in the vast death of the solar system [. . .] (qtd. in Appleman 539)

Human life appears to be a mysterious and melancholy thing merely a brief struggle of the helpless against the irrational and dominative external forces. Sufferings and dissatisfaction are also necessary components to move forth towards the optimistic phase. Man is controlled by environment and heredity whose life is but a worthless repetition in the never ending process. Russell further remarks: "The whole temple of man's achievement must inevitably be buried beneath the debris of universe in ruins [. . .] only within the scaffolding of these truths, only on the firm foundation of unyielding despair, can the soul's habitation henceforth be safely built" (qtd. in Appleman 539).

Everything in the universe is in process, and there is no miraculous interference. Evolution is adventitious and only through the deaths of immense number of maladapted organisms are we here today. Accidents and errors of past prefigure the present. Until now we are living with several unpleasant biological truths like death, disease, natural catastrophe. Man is heir as well as martyr. All living beings have to give sacrifice as a passive victim. Sir Julian Huxley writes: "Nor will clear ethical vision prevent us from suffering what we feel as injustice at the hands of

the cosmos – congenital deformity, unmerited suffering, physical disaster, the early death of loved ones. Such cosmic injustice represents the persistence of chance and its amorality into human life" (Evolutionary Ethnics 334).

Nature does nothing in vein but everything for an ulterior purpose. Biological determinism seeks out these points in life where the great conflicts occur and rejoices in the battle of the elemental forces like love, hatred, revolt, sociability and so on. Human are like a brush in the hands of an artist who is a mix of societal manipulation and chance. Human being is at the mercy of these forces and is simply the instrument through which they are expressed. Helplessly, he attempts to exercise free will, but unwillingly falls to the merciless hands. Free will remains as an illusion. Humans are no more free to change their behaviour than falling stones are free to change their direction. And neither humans nor falling stones are responsible for their behaviours or movements.

Animal world is full of not only struggle and aggression but also love and co-operation. But in the case, too, the weak and stupid must die and the shrewd and toughest are the fittest. Because they can help other and also get helped. Sympathy and self-sacrifice has its own significant role. Richard Hofstoter writes, "While the moral constitution of the human race is still ridden with vestiges of man's original predatory life which demanded brutal self assertion, adaptation assures that he will ultimately develop a new moral constitution fitted to the needs of civilized life" (393).

Human behaviour is to be understood in terms of the mechanistic causes, just as the behavior of all natural phenomena are to be explained. There will be no chicken unless the chemical process of the egg interacts with the environment. Our brain, too, cannot function without co-operating with nature. John Herman Randall Jr. writes:

"He is one physical and chemical being among a host of others, inextricably involved in the interplay of nature's mechanisms" (320).

Reason, imagination and creativity are man's highest achievement as well as the source of all evil which is thus ineradicable. Modern man has a huge mass of unconscious, confusion, duality and superficiality. He is never sure of himself. So, there is no path to salvation or *Nirvana*. Rather such trend alienates individual from other. Albert Camus thinks of *Nirvana* "which is an image of the future, which is based on a conception of man's essential powerlessness has the effect of cutting the individuals who pursue such a goal from all other men" (qtd. in Margaret Mead 422).

Man can impose morality and ethics upon the cosmic process where he is a protagonist. Social progress means a checking of the cosmic process at every step.

Irrationality and Victimization

One of the many tenets of naturalistic literature is the distinct essence and behaviours of its characters. No doubt, they are greatly influenced by heredity and environment, they also inherit some compulsive instincts, for instances, the drive to accumulate possessions, obsession towards sex, and so on. But these drives are the taboos of the society and family so they are consored. Because of them, the enmity of characters with family and society begins. The enmity they develop, becomes activated unconsciously and secretly. This enmity ends with the ruin and destruction of the people themselves. While talking about irrationality, it would be a wonderful job to bring the reference of Sigmund Freud, a neurologist and a psychologist who shocked the contemporary society with the bitter facts that human beings are instinctually irrational and civilization is the burden on men; civilization is to veil and suppress those instincts. Reflecting upon Freud's position and contribution, Charles Van Doren opines:

Freud was even more controversial figure than Darwin. His insistence that sexual desires and fears lay just beneath the surface of everyone's mind was even more shocking to Victorians than Darwin's claim that we ultimately are descended from an apelike ancestor [. . .]. He was a machinist and a determinist. He sought the explanation of the mind's working in the body's believing that the health or the illness of the mind was dependent on a balance or imbalance, of physical forces.

(282)

Before Freud, there was the assumption in the society that each action of human beings was guided by reason. Reason was the demarcation line for man and other so-called inferior animals. Man was considered as rational. Because of his habit of using logics and reason, he was the supreme creature of all the animals. He defined this notion. He divided the human mind into three layers which was taken as an 'organic whole' by the people. They are : conscious, sub-conscious and unconscious. Among them, Freud's focal of study is mainly the unconscious layer of mind. Though it constitutes a very small part of the human mind, it leaves unerasable marks on human life through-out his life. There is everything within the layer of unconscious which we have forgotten and we can't remember them. The contents in it are either 'unpleasant' and 'improper' or the 'nasty' one. They are suppressed there by 'superego'. These contents are the inevitable facts; no human beings on the earth can escape them.

Such irrational ideas begin to get entry from the moment a child is born. He lives with 'pleasure principle'. But when he begins to grow up, he is forbidden to do those things which he did and enjoyed. As he grows up, he encounters with 'reality principle' that forces him to forget them. So, those desires remain unfulfilled; they are

shoved down to the unconscious. Since then, the conflict between desires or drives and needs is initiated. Gaarder writes:

Freud held that there is a constant tension between man and his surroundings. In particular, a tension – or conflict – between his drives and needs and the demands of society. It is no exaggeration to say that Freud discovered human drives. This makes him an important exponent of the naturalistic currents that were so prominent towards the end of the nineteenth century. (432)

This is how, Freud opines, the so-called harmonious existence of man in his family and society is lost eternally. The situation became the worst after he introduced the concept of 'Oedipal Complex' and 'Electra Complex'. Oedipal complex means that sons always feel content and comfortable staying nearer to their mothers. Electra complex refers to the state where daughters make intimacy with their fathers. The concepts hurt the family pride and relation. There is now, no pious or sacred relationship among the family members. They are driven towards their opposite sex out of their sexual drives. Sometimes, because of such situation, the family is ruined and meets the tragic end. This is what really happens in 'Oedipus Rex' by Sophocles where the king has physical relationship with his own mother Iokasta and fathers four children from her. After realizing about this, the most bitter and the wretched facts, he blinds himself saying:

Oedipus: God. God

Is there a sorrow greater?

Where shall I find harbor in this world?

My voice is hurled far on a dark wind.

What has God done to me? (66)

An individual's enmity with nature and society begins immediately after he is born. He develops some instinctual drives that he tries to fulfill at any cost. As opposed to him, society stands as an alert watchman always trying to prohibit from doing so. The seeds sown then grow into violence, aggression and territoriality. The qualities almost become the inborn traits of Homo-sapiens. These irrational elements, in the passage of time become so alive and strong that neither they themselves can erase them nor the society can overpower them totally. Society can just suppress them time and again: the more society suppresses them, the stronger or volcanic they become. They eruption or outburst is almost inevitable. They may outburst at any moment especially, when the individual feels, he is defeated or discouraged by the so-called morality and ethics. So Alder states:

The tendency to anger is related to excessive ambition: both originate in competitive striving to escape from a sense of being overcome. They occur in unsocial natures, who feel uncertain of attaining their goal by patient striving, and often try to escape to the useless side upon an outburst of temper. Children make use of such explosions to conquer by terrifying, or at least to feel superior. (310)

Every outburst, eruption and territorial dispute ends with the minimum of injury of either side. It is the law that is deeply embedded in nature. Life after all is a fight and a struggle between two entities where more often nature and society are victorious and Homo-sapiens are the victims of them. It shows the eternal helplessness of mankind. It is for the reason, mankind should be pitied. It is ironic to say that mankind has to participate on that struggle in which he ought to be defeated. It is the natural law that any mankind has to struggle for existence. The struggle continues throughout his life; it ends only with his death. The issue for sympathy is that

environment, nature and society with which he is in constant clash and also has developed his enemy is always powerful, thus victorious. The defeat of him, is not because he struggles passively, but because his competitor is too much vast in scope; it is beyond comprehension.

Man has understood one of the life's best secret. It is that in order to dominate and control anything, the thing should be properly studied and understood. The more we have knowledge about the thing, easier it becomes for us to control and dominate it. It is due to this realization, mankind has attempted to identify the mysterious of nature. But nature appears vaster and even more complex as he continues his research. In this regard Tarnas quotes:

The more modern man strove to control nature by understanding its principles, to free himself from nature's power, to separate himself from nature's necessity and rise above it, the more completely his science metaphysically submerged man into nature, and thus into its mechanistic and impersonal character as well .(332)

The ending of naturalistic literature is tragic one: the protagonist of the fiction is victimized ultimately. So, they are tragedies. These tragedies differ from the classical and Elizabethan tragedies. In classical and Elizabethan tragedies, the protagonists are indeed brave and bold; they are capable of performing brave deeds. The position of the protagonists is for better than the ordinary people. They are neither the perfectionists nor are they too bad. They are between the two extremes of good and bad. So they effectively evoke pity and fear among the readers. But the protagonists of naturalistic fictions are the common people. They are the carrier of strong animalistic drives such as greed, hunger of possession, a sexual desires and other irriational and immoral desires. Characters whether they are men or women, "are

influenced by psychological, social and economic forces so complex that their character and behavior cannot be easily judged or explained" (793). The book entitled 'The Element of Literature' edited by Scholes, Compey, Kalus and Silverman while describing the naturalistic literature, especially its characters, writes:

The protagonist of the naturalistic drama [. . .] are placed in dramatic situations portraying them as a being in some sense victims of their environment. They may attempt to alter their circumstances, as does Nora, or they may gradually lose control of their circumstances, as does Julie, or they may acquiesce in them, as does Brick [. . .] (793)

In dramatic section, Emile Zola's naturalistic plays influenced August Strindberg, but he turned away from Zola in interpreting naturalism. His approach to naturalism is less scientific and less deterministic than Zola's. He is more selective and impressionistic. Strindberg's characters are not the products of genes or their social circumstances, as Zola's characters are. He believes that people are not created by their class but they belong to a particular class. He mainly delved into the psychology of his characters whose emotional lives determine their actions. However, Zola is more popular as a naturalist writer than Strindberg.

To sum up, Naturalistic literature is more science based literature which its characters are affected and are within the pressure of external and internal factors which make them almost impossible to adopt in the society and enrollment they are living in. All individuals are forced to suffer painful conflicts where there is no escape. If nature is totally indifferent towards human misery, there is no harmony between men and nature.

Chapter III

Textual Analysis

The present study attempts to analyze the text *The War of the Worlds* with the theoretical modality called Naturalism: The Theory of Evolution. The novel affirms the idea of naturalism that suggests a potential future for human evolution and perhaps a warning against overvaluing intelligence against more human qualities. The Martians having evolved on overdeveloped brain, which has left them with cumbersome bodies, with increased intelligence, but a diminished ability to use their emotions, something Wells attributes to bodily function. The narrator refers to an 1893 publication suggesting that the evolution of the human brain might outstrip the development of the body and leaving humans as thinking machines, needing mechanical devices much like the Tripod fighting machines, to be able to interact with their environment.

The story is told retrospectively by an unnamed narrator, an educated, philosophically trained man who witnessed many of the events he describes and reports them as recent history. The first signs of an invasion from Mars come when astronomers note a series of spectacular explosions on the planet. Experts, however, think they were caused by meteorites or volcanic eruptions; no one suspects the danger. Only later does it become known that climatic changes steadily had made Mars less hospitable for its inhabitants, and they were looking to Earth as their only refuge. The explosions were the firing of ten projectiles, each containing a small Martian invasion force, at Earth.

The first cylinder-shaped projectile lands southwest of London, on a summer night. By morning, it has attracted a crowd of curious onlookers. In the early evening, the cylinder opens to reveal a grotesque, octopus-like figure the size of bear, its body

glistening like wet leather. The crowd retreats in shock. By dusk, an official deputation arrives, waving a white flag. The authorities have decided that the Martians are intelligent creatures and wish to communicate with them. A devastating beam of heat shoots out from the invaders' Cylinder, destroying everything it touches. Forty people lie dead, and the narrator flees in terror.

This sets the pattern for the next few days. The Martians appear to be unstoppable. They construct huge tripod shaped machines, higher than a house, within which they sit, covered by a hood. The machines stride across the country, causing death and destruction wherever they go. Military might is useless against them: "Troops and Weapons are annihilated in large numbers. The narrator manages to escape the deadly heat ray by diving into a river. He meets a curate who believes that the day of judgment has come" (45).

The narrative switches to London as the narrator tells of the experiences of his brother. News is slow to reach the capital city, but when it does, it is grave: "The Martians are advancing on London and are releasing a poisonous black smoke that suffocates everything in its path. There is not defense against it" (46). "The entire population of London flees northward in a stampede of six million panic-stricken people. The Martians take possession of the city, although they also suffer losses: A warship rams and kills one Martian who has waded out to sea, and another Martian is killed when the same ship explodes after being struck by the heat ray" (47).

The narrator hides with the curate in an empty house to escape the black smoke. Trapped for fifteen days by the presence of Martians outside, he observes them at work and learns to his horror that they feed on human blood. The curate loses his mind, and in a struggle, the narrator kills him. When he emerges from the house,

he realizes that humanity's rule over Earth has ended, and he encounters an artillery man who has visionary ideas about what people must now do to survive.

The narrator makes his way to the deserted London, where he comes on a Martian emitting a strange crying sound. He then stumbles on the remains of a dead Martian; he soon finds fifty more. The Martians have died because they have no resistance to Earth's bacteria. The joyful news is telegraphed across the world, and relief comes to the stricken city.

Evolutionary Consciousness in *The War of the Worlds*

Upon its publication in 1859, Darwin's *On the Origin of Species* revolutionized science, religion and literature. Through the years Darwin's theory of evolution has proved controversial and often divisive, pitting especially scientific and religious communities against each other. The intent of this thesis is not to debate the validity of Darwinian theories, not to take sides in the spectrum of conflicting interpretations. Its purpose is strictly to recognize the influence that evolutionary consciousness held over nineteenth century literature. The three key elements of Darwin's theory of evolution are adaptation, determination, and natural versus sexual selection.

Adaptation is the process of assimilation that an organism achieves to make it fit for survival in its environment. Determination is the belief that biological (or social) occurrences are the result of preceding events. Natural selection is the process that results in the survival and reproduction of organisms that are best integrated in their environment, while sexual selection is marked by competition for a mate and selection based on specific characteristics, such as color in biology, or money in sociology. Many authors, including George Eliot, Joseph Conrad and Thomas Hardy, transposed scientific ideas onto their literary creations. H.G. Wells is no exception,

though he reflects evolutionary consciousness in less direct ways. This thesis will trace the effect of the key elements of Darwin's theory on the works of Wells.

Recognizing these evolutionary basics helps us grasp the way social and natural impulses converge and diverge in the author's fiction.

Evolutionary consciousness is close to Darwinism which is a scientific doctrine about the origin of species. Newly observed facts like natural and sexual selection, heredity, variation, descent, struggle, adaptation and environmental determinism gave true profile of humanity. It explains the realities and significance, cause and consequences of man's violent nature and his instinctual behaviours along with hereditary and environmental contributions. It declares that there is no prior-intelligent causal force to plan the events in evolutionary nature which is a continuous process autonomous and self regulating where chance and coincidence also play the determining role. Fierce battle between the close ecological rivals is the ultimate truth in nature. Biblical notion of sin, guilt and fall become inescapable human legacy that denounce redemption but accept the merciless elimination in the battle for existence.

Wells applies Darwinian evolution to his depiction of Martians in this novel, *The War of the Worlds*, creating an apocalyptic invasion fantasy with monstrous aliens that have a simple bodily form, though they are far-advanced in their mental capacities. His Martians, then, as other scholars have noted, are not unlike the evolved men of his essay, "The Man of the Year Million". Elsewhere, Wells undermined ideas of extraterrestrial communication because "the creatures on Mars would be different from the creature of earth, in form and function, in structure and in habit, different beyond the most bizarre imaginings of nightmare" ("Intelligence on Mars" 296). For Wells, then to assume that extraterrestrials resemble men not only in appearance but also in behaviour would be naïve. Wells undermines the easy logic of the popular

phrase, "men on Mars," in *The War of The Worlds*. He suggests that simple metaphors lead to lazy thought and bad science. Though Wells writes for the popular audience, he attempts to create his ideas readership, a readership attuned to the distinctions between the rigor of scientific discourse and the sometimes easy logic of public discourse.

Wells explodes the metaphor of "men on Mars", warning his readers of the danger of appropriating the logic behind this popular phrase, as the apocalyptic story begins when the aliens prove not to be like men. For Wells, the idea of "men on Mars" is not a metaphor or poetic language but rather the idea of extraterrestrials resembling men, a notion he found absurd because the probability of this is statistically negligible according to Darwin's theory of evolution. According to Wells, creatures on Mars probably would not even have the same sense organs as man let alone experience the world the same way as man "there might be no common measure of what they and we hear and see, taste, smell, and touch" (297). Wells objected to the embellished and often sensationalized writings of contemporary journalists – and scientists – that disregarded Darwin's theory of evolution when speculating about intelligent life on Mars or the possibility of extraterrestrial communication.

The narrator rejects the popular notion of canals on Mars, creating his own fanciful explanation for the markings observed on the planet: "the Martians must have been getting ready" to attack (53). Telling his story in hindsight, the narrator is aware of the impending alien attack and his visions of the apocalyptic story color his interpretation of this discovery. The narrator read the movement of markings observed on the planet as evidence of a Martian militaristic effort. He interprets the movement of the markings through the lens of his own culture when he imagines that the Martians live up like Englishman who are about to engage in war.

Environment and natural settings give constant challenges to the existence. So one has to modify himself in accordance with the needs of the changing environment. The development toward a new state of existence, which is acceptable and profitable to the demands, is adaptation which is possible only after variation. Such variation in individuals is caused because of their environment and hereditary constitution. Because of the variation, all individuals have different nature and feelings as well as the matter of behavior. Darwin defines his idea of natural selection:

Individuals having any advantage however, slight over others would have the best chance of surviving and of procreating their kind [. . .] any variation in the least degree injurious would be rigidly destroyed. This presentation of favourable individual differences and variations, and the destruction of those which are injuries, I have called Natural Selection, or the survival of the fittest. (54)

At the end of the nineteenth century, there was much scientific and popular speculation about the possibility of life on Mars. Astronomer Percival Lowell, for example, proposed in 1896 that the canals on Mars were the work of intelligent beings. Wells was acquainted with such theories and published nonfiction articles that discussed them. He also used the idea of intelligent life elsewhere to write story that would shatter the Victorian belief in the inevitability of progress and the benevolence of the process of evolution.

Scientific Setting

H.G. Wells trained as a science teacher during the later half of the 1880s. One of his teachers was T.H. Huxley, famous as a major advocate of Darwinism. He later taught science, his first book was biology textbook and he joined the scientific journal

Nature as a reviewer in 1894. Much of his work is notable for making contemporary ideas of science and technology easily understandable to readers.

The scientific fascinations of the novel are established in the opening chapter, where the Narrator views Mars through a telescope and Wells offers the image of the superior Martians having observed human affairs, as through watching tiny organisms through a microscope. Ironically, it is microscopic Earth life forms that finally prove deadly to the invasion force. In 1894 a French astronomer observed a strange light' on Mars, and published his findings in the scientific Journal *Nature* on 2 August of that year. Wells used this observation to open the novel, imagining these lights to be the launching of the Martian cylinders towards Earth. American Astronomer Percival Lowell published the book *Mars*, in 1895, suggesting features of the planet's surface observed through telescopes might be canals. He speculated that these might be irrigation channels constructed by a sentient life form to support existence on an arid, dying world, similar to that Wells suggests the Martians have left behind. The novel also presents ideas related to Charles Darwin's theory of natural selection, both in specific ideas discussed by the narrator, and themes explored by the story.

Wells, himself wrote an essay entitled 'Intelligence on Mars', published in 1896 in the *Saturday Review* which sets out many of the ideas for the Martians and their planet, which are used almost unchanged in *The War of the Worlds*. In the essay he speculates about the nature of the Martian inhabitants, how their evolutionary progress might compares to humans, and also suggests that Mars, being an older world than the Earth, might have become frozen and desolate, conditions that might encourage the Martians to find another planet on which to settle.

Many novels focusing on life on other planets written close to 1900 echo scientific ideas of the time, including Pierre-Simon Laplace's nebular hypothesis,

Charles Darwin's theory of natural selection and Gustav Kirchhoff's theory of spectroscopy. These scientific ideas combined to present the possibility that planets are alike in composition and conditions for the development of species, which would likely lead to the emergence of life at a suitable geological age in a planet's development.

By the time Wells came to write *The War of the Worlds*, there had been three centuries of observation of Mars through telescopes. Galileo, in 1610, observed the planet's phases and in Giovanni Cassini identified the polar ice caps. In 1878, Italian astronomer, Giovanni Virginio Schiaparelli observed geological features which he called canali. This was mistranslated into the English as "canals" which, being artificial watercourses, fueled the belief that there was some sort of intelligent extraterrestrial life on the planet. It has been suggested in recent years, that the canals were actually the result of a disease that made Giovanni see his own eye structure which he assumed were canals. This further influenced American astronomer Percival Lowell.

In 1895 Lowell published a book entitled *Mars* which speculated about an arid, dying landscape, whose inhabitants had been forced to build canals thousands of miles long to bring water from the polar caps to irrigate the remaining arable land. This formed the most advanced scientific ideas about the conditions on the red planet available to Wells at the time *The War of the Worlds* was written. The concept of canals with flowing water was later proved erroneous by more accurate observation of the planet, and later landings by Russian and American probes such as the two Viking missions which found a lifeless world too cold for water to exist in its liquid state.

Human Evolution

The novel also suggests a potential future for human evolution and perhaps a warning against overvaluing intelligence against more human qualities. The narrator describes the Martians as having evolved an overdeveloped brain, which has left them with cumbersome bodies, with increased intelligence, but a diminished ability to use their emotions, something Wells attributes to the bodily function. The narrator refers to an 1893 publication suggesting that the evolution of the human brain might outstrip the development of the body, and organs such as the stomach, nose, teeth and hair would neither, leaving humans as thinking machines, needing mechanical devices much like the Tripod fighting machines, to be able to interact with their environment. This publication is probably Wells' own "The Man of the Year Million", published in the *Pall Mall Gazette* on November 6, 1893, which suggests similar ideas.

Wells was a student of Thomas Henry Huxley, who was a major influence upon him. Huxley was commonly referred to as 'Darwin's bulldog'. This was as a result of his vigorous defense of Charles Darwin's theory of natural selection against criticism by the Victorian religious establishment during the later half of the 19th century. They saw the theory of natural selection as an attempt to suggest that the development of life on earth did not require any kind of supernatural explanation such as a divine creator. Darwin's theory suggested that every species was competing to survive in a given environment and the species which had evolved the most useful biological adaptations to that environment, was most likely to survive and produce offspring also possessing these useful characteristics.

In the novel, the conflict between humankind and the Martians is portrayed as a similar struggle. It is a survival of the fittest, with the Martians whose longer period of successful evolution on the older Mars, has led to them developing a superior

intelligence, able to create weapons far in advance of humans on the younger planet Earth, who have not had the opportunity to develop sufficient intelligence to construct similar weapons.

A few writers after the advent of the theory of evolution may have suggested that rational life on other worlds would take different forms from that on the earth, but nothing equal to the intelligent anthill inside the moon had ever been conceived. The theme of biological innovation is a persistent one in Wells' early scientific romances. *The First Men in the Moon* portrays insects which have evolved great intelligence, and *The War of the Worlds* presents man after one million years more of evolution.

Wells' Martians are all brain and no heart. The narrator believes that they communicate telepathically, though the content of their communications is beyond his comprehension. He witnesses how the Martians reproduce by producing buds on their bodies, small copies of themselves – and from this he deduces that they have no genders. For Charles Gannon, this method of reproduction has complex and crucial implications in that "Wells eliminates a basic reason for, and force in, communal relations, love compassion, selflessness, and sensuality" (42). Thus, their advanced mental evolution "may entail horrific social, even physiological, alterations." Their dedication to self-interest and efficiency is shown to lead to egoism, narcissism, intolerance, and indifference to other species. This is in marked contrast to the very human form of love represented by the close relationship between the narrator and his wife, who are separated at the beginning of the conflict. Only at the end, against all hope, are they reunited, and the narrator can reflect on the ultimate value of their relationship.

Wells wrote *The War of the Worlds* at a time of increasing English fears about attacking Europeans. In 1871, influenced by recent Prussian aggression, sir George

Tonkyns Chesney published a best-selling story about the Germans overpowering the much weaker English army called the Battle of Darking, the popular fictional tale led to a plethora of publications about future wars and their gruesome consequences: a publishing rage that lasted well into the twentieth century (63). It may be no coincidence that when Wells wrote *The War of the Worlds* in the midst of this craze, he had the first Martian cylinder land near "Working" a place similar in sound to "Dorking".

According to Lowell, Mars was an "Older" planet than Earth by the then prevalent nebular hypothesis; Wells mentions this "fact" in each of the first three paragraphs of *The War of the Worlds* (42). For Lowell, "evolution on [Mar's] surface must be similarly advanced"; Wells, approaching the issue from a Huxleyan perspective, saw that "older" also implied that Martian life-forms might have grown more degenerate, its atmosphere less hospitable than Earth's. Lowell's "planet-wide" Martian system of canals presupposes an advanced technology at the behest of a will unweakened by terrestrial –style factional politics (246); and so emerge Wells' Martians with their "intellects vast and cool and unsympathetic" regarding "this earth with envious eyes" (41). On the other hand, Wells saw that Lowell's idea that Martians would be "twenty-seven times as strong as we" (246) thanks to their lower gravity was totally misleading when it came to describing how Martians might move unaided on Earth.

Total War

The Martian invasion proceeds with total disregard for human life; attacks on people and their environment are conducted with the heatray, with poisonous gas, the Black smoke, delivered by rockets, and the Red Weed. These weapons brought almost total destruction to the capital of the *British Empire* and its surrounding countries. It

also involves the strategic destruction of infrastructure such as armament stores, railways and telegraph lines. It appears to be intended to cause maximum casualties, terrorizing and leaving humans without any will to resist. These tactics became more common as the twentieth century progressed, particularly from the 1930s with the development of mobile weapons and technology capable of 'surgical strikes' on key military and civilian targets.

Wells' vision of a war bringing total destruction without moral limitations in *The War of the Worlds* were not taken seriously by readers at the time of publication. It was seen as one of a number of fictions which proposed this idea. He later expanded these ideas with more realistic novels such as *The War in the Air* (1908) and *The World Set Free* (1914). This kind of 'total war' did not become fully realized until the Second World War, with the Nazi Blitzkrieg, the terrorizing and evacuation of entire civilian populations, and the annihilation of cities.

In his seminal study of literary depictions of future wars. I.F. Clarke describes Wells' *The War of the Worlds* as "the perfect nineteenth-century myth of the imaginary war" (84). By this he means that Wells had combined a number of elements already in the public psyche at the time and had given them expression in a symbolic representation that was immediately understood. These elements or ideas were all based on scientific or technological discoveries: Darwin's theory of evolution, changing methods of warfare, and the theory that man might not be alone in the universe. Wells believed that the violence with which colonial wars were fought supported the Darwinian idea of the "survival of the fittest". He was also quick to realize that military technology had advanced to such an extent that any future war would not just involve the combatants but the civilian population as well, that these

wars would be mechanical, and that the side with the most advanced technology would prevail.

In *The War of the Worlds*, Wells picked up on the fashion of novels predicting war in Europe as a result of the unification and militarization of Germany. However, he gave his tale a new dimension by elevating it into an interplanetary level. As this required a leap of faith from his readers, he used Chesney's semi-documentary style:

It is curious to recall some of the mental habits of those departed days. At most, terrestrial men fancied there might be other men upon Mars, perhaps inferior to themselves and ready to welcome a missionary enterprise. Yet, across the gulf of space, minds that are to our minds as ours are to those of the beasts that perish, intellects vast and cool and unsympathetic, regarded this earth with envious eyes, and slowly and surely drew their plans against us. And early in the twentieth century came the great disillusionment. (9)

However, Wells and his narrator appear much more distanced from the events than do Chesney and his narrator, viewing them almost with scientific detachment. Indeed, Wells applied Darwin's evolutionary theory to the threat, pointing out that what the Martians were doing to mankind was no worse than what the colonial powers had done to other, "inferior" races (11).

Charles Gannon points out that *The War of the Worlds* represents the radical extreme of Wells' technological and military inventiveness: "Although dismissed as pure fantasy in Wells' own time, a modern reader may find his descriptions of the Martians' weapons suffused with urgent implication" (40). Indeed, Wells' inventiveness seems to go beyond imaginatively toying with the idea of a new technology that might shock or astound his readers; rather, he extrapolates from

contemporary technological or "scientific processes a likely – and terrifying – future (24). Wells was convinced that the ability to built and control machines would be the decisive factor in future conflicts. His Martians employ excavating and building machines, which in turn assemble the Martian tripods – highly mobile, impervious fighting machines that can destroy the English gums and warships at will and can cover ground quickly.

Social Darwinism

The novel also dramatizes the ideas of race presented in Social Darwinism, an ideology of some prominence at the time it was written. The Martians exercise over humans their 'rights' as a superior race, more advanced in evolution.

Social Darwinism was a theory which applied Darwin's theory of Natural Selection to ethnic groups and social classes. It suggested that the success of these different ethnic groups in world affairs, and social classes in a society were the result of evolutionary forces, a struggle in which the group or class more fit to succeed did so; i.e. the ability of an ethnic group to dominate other ethnic groups, or the chance to succeed or rise to the top of society was determined by biology, not by the effort of individuals, and the offspring of the dominant groups were destined to succeed because they were more evolved. In more modern times it is typically seen as dubious and unscientific for its apparent use of Darwin's ideas to justify the position of the rich and powerful, or dominant ethnic groups. It was a theory exploited by the Nazis to justify their action, was at one time used to justify the repression of women, and even used to justify sterilizing people through to belong to an inferior type.

Wells was born into a family which, while middle class, was not well to do and matured in a society where the merit of an individual was not considered as important as their social class of origin. His father was a professional sportsman,

which was seen as inferior, because this was an area that 'gentlemen' only indulged in as an amateur pastime. His mother was at one time a domestic servant, and Wells himself was, prior to his writing career, apprenticed to a draper. His achievements were hard won. Trained as a scientist, well aware of evolutionary theory, he was able to relate his experiences of struggle to Darwin's idea of a world struggle, but he saw science as a rational system, which extended beyond traditional ideas of race, class and religions notions, and this gave his fiction a critical edge which challenged the use of science to explain political and social norms of the day.

Wells' scientific writings reveal his concern with sensationalizing Mars mania in this respect. Wells had a long-standing interest in Darwin's theory of evolution, which influenced his speculations about extraterrestrial life. In 1888, Wells presented a paper titled, "Are the planets Habitable?" to the Debating society at the Royal College of Science, concluding that "there was every reason to suppose that the surface of Mars was occupied by living beings" (qtd. In Bergonzi 123). Wells also co-authored a textbook called *Honours Physiography* (1893), which speculated about intelligent life on Mars (18). Though Wells was a firm believer in the possibility of extraterrestrial life, he scoffed at the popular view of scientists of his day who assumed intelligent life on Mars would be in man's image. Drawing on Darwinian theory, this essay imagined man in the year million with a superior mental capacity – but a disturbingly simple bodily form bathing in a nutrient bath, which punch lampooned in a cartoon depicting the future evolution of man as aliens in a nutrient bath. Wells' allusion to both this essay and the *punch* cartoon in *The War of the Worlds* convincingly shows the degree to which his novel interacts with print culture in the 1890s.

Wells applies Darwinian evolution to his depiction of Martians in this novel, creating an apocalyptic invasion fantasy with monstrous aliens that have a simple bodily form, though they are far-advanced in their mental capacities. His Martians, then, as other scholars have noted, are not unlike the evolved men of his essay, "The Man of the Year Million". Elsewhere, Wells undermined ideas of extraterrestrial communication because "the creatures on Mars would be different from the creatures of earth, in form and function, in structure and in habit, different beyond the most bizarre imaginings of nightmare" (196). For Wells, then, to assume that extraterrestrials resemble men not only in appearance but also in behaviour would be naïve. Wells undermines the easy logic of the popular phrase, "men on Mars", in *The War of the Worlds*.

Wells explodes the metaphor of "men on Mars", warning his readers of the danger of appropriating the logic behind this popular phrase, as the apocalyptic story begins when the aliens prove not to be like men. For Wells, the idea of "men on Mars" is not a metaphor or poetic language but rather the idea of extraterrestrials resembling men, a notion he found absurd because the probability of this is statistically negligible according to Darwin's theory of evolution. According to Wells, creatures on Mars probably would not even have the same sense organs as man let alone experience the world the same way as man: "there might be no common measure of what they and we hear and see, taste, smell, and touch" ("Intelligence on Mars" 297). Wells objected to the embellished and often sensationalized writings of contemporary journalists – and scientists – that disregarded Darwin's theory of evolution when speculating about intelligent life on Mars or the possibility of extraterrestrial communication.

Motif of Evolutionary Consciousness in *The War of the Worlds*

A strange part of the human mind likes to be frightened. When people are frightened, psychologists tell us, the flight-flight reflex is stimulated, adrenaline is pumped into our systems and we become more alert, hearts beat faster, eyes see better, nerves speed messages to and from the brain, muscles tense, and we live at a faster pace. People's desire for that kind of stimulus may be the reason for the recent resurgence in horror fiction and movies, as well as the persistent popularity of ghost stories.

That is the tradition in which H.G. Wells, the father of modern science fiction, wrote *The War of the Worlds*. It was published in 1898. It was his most effective, and most popular, scientific romance, and it was reprinted all over the world, serialized in newspapers and, of course, formed the basis for the 1938 Orson Wells radio play that "terrified America" and the 1953 George Pal film.

The possibility of time travel and the detailed imagining of the future was what made *The Time Machine* successful. Horror was the basis of the *Island of Dr. Moreau*. *The Invisible Man* took an old dream, "the cloak of invisibility, and, among other things, demonstrated its dangerous possibilities as well as its drawbacks. Terror was the basis for the popularity of *The War of the Worlds*. After all, what could be more terrifying than the prospect of being invaded by irresistibly powerful and uncaring aliens, who look upon humanity as humanity looks cattle, as no more than food?

The idea of invasion by aliens, used here for the first time, became a basic science-fiction theme. *The War of the Worlds* would be not only the first but the definitive treatment, because every alien-contact novel that followed would

incorporate echoes of Wells' novel. The novel also recorded the first appearance of the monstrous alien, with the words.

A big greyish rounded bulk, the size, perhaps, of a bear, was rising slowly and painfully out of the cylinder. As it bulged up and caught the light, it glistened like wet leather [. . .] Two large dark colored eyes were regarding me steadfastly. There was a mouth under the eyes, the lipless grin of which quivered and panted, and' dropped saliva [. . .] (7)

Later, after the appearance of the pulp science-fiction magazines, the "bug-eyed monster" would become commonplace on magazine covers.

The opening sentence (which was also the slightly altered opening line of the Orson Welles broadcast) became famous: "No one would have believed in the last years of the 19th century that this world was being watched keenly and closely by intelligences greater than man's and yet as mortal as his own [. . .]" A sentence close to the end of the first paragraph of *The War of the Worlds* has been cited by Brian W. Aldiss as a touchstone of science fiction. "Yet across the gulf of space, minds that are to our minds as ours are to those of the beasts that perish, intellects vast and cool and unsympathetic, regarded this earth with envious eyes, and slowly and surely drew their plans against us" (28).

Humanity not only delights in terror, it also seems to delight in imagining the destruction of civilization. An entire genre of movies and stories are devoted to stories of worldwide disaster. In fact, the only way one can distinguish between many of them is by the different causes for the disaster. Wells was early with this tradition as well, if not the first. About the same time he was writing *The War of the Worlds*, Wells was writing a short story titled "The Star" in which humanity was almost destroyed by a planet that wanders into the solar system from outer space. Other

stories have envisaged the destruction of civilization by plague, flood drought, radiation, war, heat, cold, stellar and galactic evolution, and dozens of other perils.

Humanity also seems to want the disaster to occur in its immediate neighborhood. Wells recalled in his auto-biography that while he was planning *The War of the Worlds*, "I wheeled about the district marking down suitable places and people for destruction by my Martians." And he wrote to a friend:

I'm doing the dearest little serial for Pearson's new magazine, in which I completely wreck and destroy working – killing my neighbours in painful and eccentric ways – then proceed via Kingston and Richmond to London, which I sack, selecting South Kensington for feats of peculiar atrocity. (35)

And when newspapers serialized the novel they almost invariably transferred the Martians' landing to their own locality. Orson Welles, in his radio broadcast, placed the scene of destruction in New Jersey and New York City, and George Pal in his film version, destroyed Los Angeles and Hollywood.

A book published in 1898 might be expected to seem outdated to a modern audience. To be sure, the weapons with which humanity defends itself against the Martians war machines were upgraded from artillery and machine guns in Wells' novel to airplanes in the radio play and atomic bombs in the film.

The vision of the gigantic tripods striding across the countryside, leveling everything in their paths with their head rays and killing with their "Black Smoke", still has the power to stir our terrified imaginations. What is more, *The War of the Worlds* was written approximately twenty years before the first use of poison gas in warfare, and today's scientists still are working on the use of lasers as weapons.

Prophecy in fiction may be fascinating, but prophecy is not what science fiction is about, nor what makes it endure. It is the vision and the story that creates classics, and the classic aspect of *The War of the Worlds* is the way in which people respond to attack and what those nightmares continue to mean to readers today.

Wells had gone through personal problems of health, marriage, and writing career that would have discouraged a less determined man. These factors combined with his education at the Norman School of Science in South Kensington under Thomas H. Huxley which exposed him to Darwinism influenced Wells' belief in man's survivability. Darwin's theory of evolution with its appearance-and-extinction-of-species and its survival-of-the fittest theories raised problems even for its defenders.

Darwin had ended his *Origin of the Species* on a note of hope; since, he wrote, humanity had survived in an unbroken line, "we may look with some confidence to a secure future of great length." But these also were implicit in evolution the possibility of sudden extinction, just as the dinosaurs had vanished almost overnight for no apparent reason. In an essay published in 1894 titled "The Extinction of Man," Wells raised the specter that would stalk through his scientific romances:

[. . .] man's complacent assumption of the future is too confident. We think, because things have been easy for mankind as a whole for a generation or so, we are going on the perfect comfort and security in the future. We think that we shall always go to work at ten and leave off at four and have dinner at seven forever and ever [. . .] Even now, for all we can tell, the coming terror may be crouching for its spring and the fall of humanity be at hand. In the case of every predominant

animal the world has ever seen [. . .] the hour of its complete ascendance has been the eve of its entire overthrow. (48)

Another question raised by Huxley, Darwin's disciple and defender, was the question of progress. In a famous lecture at Oxford on "Evolution and Ethics," he said:

Social progress means a checking of the cosmic process at every step and the substitution for it of another, which may be called the ethical process; the end of which is not the survival of those who may happen to be the fittest [. . .] but of those who are ethically the best. (16)

Wells, however, saw no way of humanity to substitute the ethical process for the cosmic process—for people to decide issues on moral grounds rather than by letting nature take its course where only the fittest survive – as long as people were people. What makes them human, he suggested in *The Island of Doctor Moreau* and *The Invisible Man*, is social morality, and if that is stripped away, like the clothing of the invisible man, there is nothing left but the animal.

Perhaps, then, he suggests in *The War of the Worlds*, humanity must be changed, reformed. What would be necessary to reform humanity? A trial by fire, a cataclysm of some kind [. . .]? In some of his later novels, as in the film whose scenario he wrote, *Things to Come*, he suggests that a great war might do it; in *The Food of the Gods* he speculates about a new kind of food; and in *In the Days of the Comet*, he suggests it would take a reforming gas that would change human metabolism.

In *The War of the Worlds* he visits upon humanity a catastrophe that is almost Biblical in scope and severity, as if to warn people that there is no hope unless they see the error of their ways and repent. He makes the Martians so repulsive because he wants the reader to have no sympathy for them; they are totally alien. They also are

totally destructive. They are as uninterested in communicating with us as we might be in communicating with termites. They want to destroy civilization and use the remnants of the human species for food.

Wells did not stop there, however. The Martians, he implies, are what humanity might become. The Martians, mostly brains with tentacles, had perfected their civilization to the point where they had destroyed all forms of life that might threaten it and had evolved so far from their beginnings that they could survive only on blood. They were vampires, but their very vampirism was a sign of their greater "civilization".

Wells had written an essay while he still was a college student that he later revised and published in 1893 as "The Man of the Year Million." In it he imagined a time when distant descendants of mankind would be giant brains floating in tubs of nutritive fluids; when humanity would live by chemicals and sunlight alone on a planet where it had destroyed all other plants and animals, when humanity's heirs would be driven underground by the cooling of the sun and earth to live in galleries linked to the surface by ventilating shafts.

In the novel, *The War of the Worlds*, when the narrator comments about "a certain speculative writer of quasi-scientific repute," he is referring to Wells, and the article he describes is "Man of the Year Million." The end of civilization, Wells suggests, may occur when humanity has achieved the same kind of technological mastery over nature as the Martians; if we totally conquer our environment, we may end up totally powerful – and totally vulnerable.

Chapter IV

Conclusion

From the close analysis of Wells' *The War of the Worlds*, the researcher concludes that he has applied Darwinian evolution to his depiction of Martians in this novel. He has created an apocalyptic invasion fantasy with monstrous aliens that have a simple bodily form, though they are far-advanced in their mental capacities. Wells had a long-standing interest in Darwin's theory of evolution, which influenced his speculations about extraterrestrial life. It also testifies to Darwin's belief that matters such as adaptation, determinism and sexual selection occur at the human level just as they do in biology. Wells undermined ideas of extraterrestrial communication because "the creatures on Mars would be different from the creatures of earth, in form and function in structure and in habit, different beyond the most bizaare imaginings of nightmare" (296).

Writing at a time when science fiction hadn't yet separated from mainstream literature, Wells established the ground-rules that all subsequent works in his genre would follow. He focused on the opposition between human and non-human, science and nature (38). He also introduced the icons of the new genre, including the spaceship, ruined landscape, and monsters (225). Reading *The War of the Worlds* today, one is struck by his ability to reflect the dreams and aspirations, fears and nightmares of a world changing at an even-increasing speed. Wells evokes a keen sense of loss and a reluctant to let go of the world he knows. Wells believed that man needed to grow up and be prepared for the fundamental changes that the scientific progress would inevitably bring.

Wells has given us one of the most enduring images of evolutionary consciousness: first contact with aliens who have evil intentions. With these inhuman

and technologically superior attackers, he has fuelled our paranoia and spurred society to arm itself. For Wells, space was only to be had on the other side of war, and as much as he wished for a utopian, social peace to arrive, he was realist enough to see that mankind required some form of discipline to controlling force to move towards this goal. Wells' depiction of Martian as monsters is simply easier to grasp. This does not mean, though, that the novel fails to make its mark.

The narrator's assumptions about Martian behaviour are not consistent with Ogilvy's Darwinian views on the inhabitants of Mars. The astronomer Ogilvy "scoffed at the vulgar idea of [Mars] having inhabitant who were signaling us [. . .]. He pointed out to the narrator how unlikely it was that organic evolution had taken the same direction in the two adjacent planets. 'The chances against anything man-like on Mars are a million to one' (Ogilvy) said" (54). If Ogilvy – who is the narrator's main source for the story of the flames on Mars—believes organic evolution makes extraterrestrial signaling highly unlikely, we should also be doubtful of the narrator's other assumptions that the Martians would behave like men.

Wells also claims the superiority of his own "scientific education" which helps him recognize the cylinder an "extraterrestrial", a word that had no meaning for most of the onlookers" (60). Wells undermines the narrators scientific education by exposing the narrator's persistent belief in the notion of men-like Martians, a belief that Wells found statistically negligible according to his interpretation of Darwinian theory.

In the novel, humanity goes about its business completely self-assured of its mastery of nature and utterly ignorant of anything that might threaten it. The superior place occupied by humans in the chain of being is usurped in a matter of days. To make the point, Wells draws frequent analogies between how the Martians must

regard humans and how humans regard lower life-forms. The Martians must have studied humanity as human scientists might study minute organisms under a microscope, and the aliens take as much notice of human attempts to communicate with them as humans do to the lowing of a cow. Ants, bees, monkeys and rabbits also are invoked to emphasize the shiftian order of nature. The point is clear: Evolution, the process of natural selection, does not inevitably favor humankind.

Wells has influenced heavily by the theories of Huxley, whose lectures Wells attended in 1884. There is no doubt that although the novel ends with the overthrow of the Martians, it is predominantly pessimistic. Now only is all of humanity's technological knowledge and military power useless against the Martians, but so is its edifice of spiritual knowledge: The curate is the most pathetic character in the book. Weak and cowardly, he clings to scriptures that offer neither explanation nor solace for humanity plight. Even though humanity survives this particular catastrophe, in time, as Earth slowly decays, it will face the same crisis that the Martians had faced and that prompted their invasion of earth. The only solace to be had from the war is the knowledge that too much confidence in the future leads to decadence. Humankind perpetually must be ready for the worst.

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