Investigating Elements of Humanism in Select Robot Stories of Isaac Asimov

Nisha R.

(12PEN011)

A Thesis submitted to

Avinashilingam Institute for Home Science and Higher Education for Women

Coimbatore - 641 043.

In partial fulfillment of the requirements for the degree of Master of Arts in English

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Signature of the Head of the Department

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Signature of the supervisor

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Chapter I

Introduction to Science Fiction

The Oxford English Dictionary defines 'Fiction' as one "that which is fashioned or framed; a device, a fabric." It is derived from the Latin 'fingere' that means to fashion or to form. It is a way of relating a story that the teller, a writer, *weaves* by placement of words in a discrete form. Fiction is the term for any invented literary narrative work. As such, arranging characters, placing them in a setting, providing them feelings, words and adventures sets Fiction. In literature, fiction refers to novels, short stories and other works of art that do not profess to tell true stories. Modern fiction encompasses an extensive range of types and styles, including Science Fiction, Romance and Mystery. On a broader plane, Fiction is classified as Realistic Fiction, Non-Realistic Fiction and Semi-Fiction.

Realistic fiction refers to stories that might really happen, stories set in a particular time and that happen to a particular set of people. Realistic Fiction is the fiction, which may be not real in fact, but the events could happen in future. Fictional works are mainly products of extraordinary imagination, which lead to a great extent of deriving wonder and excitement. But when this creative and imaginative work carries the possibility of happening in real world or if they are proved physically then it becomes realistic fiction. For example, in the novel *From Earth to the Moon* (1865) the author Jules Verne has depicted a man's landing on the moon and his crossing through several struggles to achieve something. The man's aim to reach moon, was a creative thought of the author

Jules Verne. But his own creativity has turned to reality when Neil Armstrong landed on the Moon in the year 1969.

Non realistic fiction is one, the events of which could not happen in real life. Non realistic fiction is purely an imaginative work, based on events or facts that can neither happen nor are possible in real world at any time. But the situations around the story are created by using the real facts in our environment. Lewis Carrol's novel *Alice in Wonderland* (1865) is one of the best examples for Non-Realistic Fiction. The girl Alice sheds tears that flow like a sea and she interacts with a caterpillar on a mushroom, which grants her a boon that she could stretch herself large or shrink herself to be a small girl, as per her wish. In real life, no human's tears flow like an ocean or even make a pond. Humans can never maintain contact with insects through conversations, or walk through any other living beings. No human can ever grow so large as a giant or abnormally too small. It is impossible to human beings to alternate their physical structure beyond a certain extent according to their wish. All these facts prove that non realistic fiction's incidence could never and ever happen in practical life.

Semi- Fiction is based on a true story, or a fictionalized account or a re-constructed biography. Semi fiction novels are written using true story, but they may be presented with significant additions and deletions from the true story to make it more effective and suitable.

The term Science Fiction was first coined by Forrest J. Ackerman at UCLA in 1954. Science Fiction is defined as the genre of fiction dealing with the impact of imagined innovations in Science or Technology, often in a futuristic setting. One of the

ascent that makes Science Fiction so popular is that, it does not give the emotion of reading a Science Fiction, but it gives the feel of reading *Star War Novels* (1978) by George Lukas or a novel dealing with alternate history. (Saricks, 2009, Pg.313)

Science Fiction is based on scientific explorations and technological inventions, where humans are found to be dealing with a non-human entity. Science Fiction is the literature of change. When a culture is undergoing lots of changes due to scientific advances and technological developments, and expects to undergo more, it surprises people if stories about these changes become popular as a way of expressing people's thoughts about change in world.

Humans who survived thousands of years ago existed without science. During this time the world was generally regarded as the stage for supernatural forces. Myths and religious ideas explained the natural world. Throughout its own history, Western Science regularly has drawn from classical mythology for names and terms, once it became a distinct field.

Science Fiction is often aligned with the Horror Genre and Monsters because of the component of fear involved. But the source of fear differs in each type. For instance, in horror novels, fear is evoked psychologically, directly affecting the humans' private life. On the contrary, in Science Fiction, fear is evoked through various means. By the same token, it can be easily understood how and why Science Fiction has been associated with film from the beginning. Georges Melies' "*A Trip to the Moon*" (1902) is one good example for this, where Melies, a French magician, accidentally discovers special effects; and in 1896 these special effects have been used in and popularized through films and later incorporated in novels. Georges Melies has created the basic vocabulary of

special effects, and built the first studio of glass-house form, the prototype of European studios of the silent era. The success of his films contributed to the development of an international market in films and did much to secure the ascendancy of French cinema in the pre-1914 period. (*Robinson, 1993)*

Many scientific creations, using various technologies make possible a comfortable life for the humans. These are also produced as films and are written as novels. Thus, one can evaluate how far Science plays an essential role in human life.

The aspects of Science Fiction are brought out through its various types. With technological basis there are many portions. All these aspects are based on various types of Science Fiction. They are: Hard Science Fiction, Soft Science Fiction, Cyberpunk and Military Science Fiction. Hard Science Fiction is exemplified by rigorous attention to perfection in every detail of the Natural Sciences, especially Physics, Astrophysics, and Chemistry, depicting worlds that are more used for advanced technologies to make possible innovations.(Bontecou, 1953, Pg.207) It shows fiction as very detailed and realistic. As technology is the very important quality that should be seen presented in Science Fiction, it plays the central role in Isaac Asimov's novel *Foundation*.

Max Brooks' novel *World War Z* (2006) is an example for Hard Science Fiction. In this novel, Zombies, the lifeless people who brought back to their life through witchcraft, are portrayed as humans that have been infected with a disease that spreads through saliva, and the world's response to them is quite realistic. The author uses different mode of style to portray his idea of Hard Science Fiction through this novel. He breaks out of the usual narrative style to tell a hyper-realistic story about what would

happen if there were a global pandemic- a virulent disease that spreads all over the world, has claimed millions of lives. It is even realistic that people might identify the infected Zombies, since the term is so common in our popular culture.

The Nanotech Quartet by Kathleen Goonan (1990) is a kind of Hard Science Fiction novel written at the initial stage of the Nanotech age. These books chart what happens to the United States after cities run on a Nanotech malfunction. As a result, all the people in those cities are converted into characters from fictional stories and public figures from the U.S. history that are stored in the Nano computers' databanks. Meanwhile, a nanovirus starts working its way across the Midwest, to persuade the people to follow a negative way. Nobody had even heard of 'nano' when the first Hard Science Fiction books were being written, back in the 1950s, and at present some of today's most exciting Hard Science Fiction deals with nano.

Soft Science Fiction is otherwise called Social Science Fiction. These include Anthropology, Sociology, Psychology, and Political Science. Notable writers in this category include Ursula K. Le Guin and Philip K. Dick. This term can describe stories focused primarily on character and emotion. Science Fiction Grand Master Ray Bradbury is an acknowledged master of this art.

Soft Science Fiction is contrasted to the notion of Hard Science Fiction. Though scientific plausibility has been a central tenet of the genre since Gernsback, writers like Larry Niven and Poul Anderson gave Hard Science Fiction a new life, crafting stories with a more sophisticated writing style and more deeply characterized protagonists, while preserving a high level of scientific sophistication. But high technological device is not

used in Soft Science Fiction. It mostly presents sociological themes. For example, the novel *The Invention of Lying (2009)* written by Ricky Gravis is an example for Soft Science Fiction.

There is another variety of Science Fiction, Cyberpunk explores the fusion between man and machine. It has as its basis an assumption of the perfection of the Internet and Virtual Reality Technology. In a Cyberpunk novel, the characters can experience and interact with computers in a 3D graphic environment that makes us feel being in a physical landscape. William Gibson, popularly known as the "father of Cyberpunk", has authored the seminal Cyberpunk novel *Necromancer (1984)*, by William Gibson. As such, Cyberpunk is a Postmodern Science Fiction genre that is noted for its focus on high technology and low life. It features advanced science such as information technology, coupled with the degree of breakdown and radical change in the social order.

Military Science Fiction stories focus on the interplanetary (Ndalianis, 2011) which mean space or astronomical war; in general, they deeply specify traditional military attributes that are aided by a soldier's point of view. Military Science Fiction is set in the context of conflict between national, interplanetary, or interstellar armed forces; the primary viewpoint characters are usually soldiers. Stories include detail about military technology, procedure, ritual, and history; military stories may use parallels with historical conflicts. The principal characters of Military Science Fiction are the members of military service, using futuristic or innovative and alter modern technology, mainly weapons, and involved in armed is a Military Science Fiction novel. Author Karen

Traviss' *City of Pearls (2004)* is another Military Science Fiction novel that projects violence between political elements that involve warfare.

In the novel *Dune (1965)*, the author Frank Herbert describes how fictional stories that feature military forces are interconnected with real lives. The argument put forth by this novel is that the Military organizations and forces are used for specific purposes in the real world, for example, carrying out a devoted role of national protection, enforcing national policy, etc. that are actually exercised through political force. Soldiers, on the other hand, might work by their own efforts and interests. These interests might respond to do governmental interests. There is a distinction between violence and acts of war or military force. According to this novel, War is not a chaotic or disordered confusion of violence, but it is directed as the destruction in the hands of a force which is organized clearly for enforcing the spirit of the state. When it comes to Science Fiction, this is an important idea for futuristic militaries. If Military Science Fiction utilizes military force, there should be an understanding on the part of said fiction that militaries exist for a purpose; otherwise, they act as a mob, organized towards their own goals. Military force, in real life and in fiction, is more than the simple act of picking up a gun and firing at somebody; it is more than organized violence.

The novel *Starship Troopers (1959)* by Robert Heinlein deals with different notion about Military Science Fiction. The story of military Science Fiction tends to tells about in general and not particularly about warfare: they are about the people caught up in the flow of wartime events, and the impact of warfare on society. It is the great possibility for an author to notify an engaging story, by also including social

commentary. Robert Heinlein's *Starship Troopers* addresses several elements of the responsibilities of citizens in the future of their nation.

In the novel *Old Man's War* (2005), a Military Science Fiction by John Scalzi, the depiction is about looking backward and forward of the events. The nature of Science Fiction makes looking at how militaries will operate in the future which is an interesting experience. Considering the events of operations in the countries of Iraq and Afghanistan, it's clear that there are some very real military elements involved with the fight against insurgency forces and that are used in military Science Fiction novels and stories.

The term is used to give unfavourable judgment for describing importable pilots, absurd science and unconvincing characters. But all these can be regretted and modern space opera may be an attempt to recapture the sense of wonder of the golden age of Science Fiction. The discoverer of this space opera Science Fiction sub genre is Edward E. Smith that was proved in the works *Skylark* and Lensman series. Also Director George Lucas's *Star Wars (1999)* series is among the most popular and famous space opera novel. It covers epic battle between good and evil throughout the entire galaxy.

As a matter of fact, the word Science Fiction acquired its modern meaning when it took deeply into the recognitions where the necessary knowledge that is depended on science is rooted in the evidence of the wit, which is carefully examined by deductive reasoning and the experimental testing of generalizations. During the Seventeenth Century, writers began producing exploratory or speculative fiction about new discoveries and technologies that the application of scientific method might bring about the existing genres and narrative frame works. The travelling tale is the rich tradition in

Science Fiction, which is known that travel into space through some innovative source or travelling to adventures to discover new ideas and explorations of science. Sir Francis Bacon, the Father of Essays, wrote the novel *The New Atlantis (1624),* a Utopian novel, published in Latin in the year 1624 and translated into English in the year 1627. In this work, Bacon portrays a vision of the future of human discovery and knowledge, expressing his aspirations and ideas for human kind. The novel depicts the creation of a utopian land where generosity and enlightenment, dignity and splendor, piety and public spirit are the commonly held qualities of a mythical island Bensalem.

By virtue of its variety of designs and thoughts, Science Fiction can be termed a literature of *ideas*. It is a type of literature which allows the writer to construct his own worlds, his own political systems and his own societies. It also allows a person to take present trends to their logical conclusions; to extrapolate a certain tendency, work out the consequences if this tendency is maintained and to show his readers how this will change society in the long run. "*The Cambridge Companion to Science Fiction*" states:

> A writer who is given this kind of freedom faces a double challenge: first, he has to construct a plausible background in terms of the world he wants to describe, and the people or any living beings who live there; their technology, their customs, common beliefs and myths, their politics and their economy. This he must do without taking too much of time away from the story itself: if he does, the reader will lose interest and complain that he wants to read a *story*, not a technical handbook. Secondly, the Science Fiction author must make his whole construction plausible in terms of the complex interplay between different parts of the social machinery: people's beliefs and the way they behave must be consistent

> with the political and social institutions that these beliefs support — otherwise, these institutions would have collapsed before the story started. The technology described must be consistent with the economic system that supports it, as well as with the fundamental laws of physics, and so on. (2003, Pg.19)

The novel *Consider Phlebas* (1987) can be cited as an example in this regard. Written by the Scottish writer Lain H. Banks, this is the first novel to feature the culture, which is an urbane, pleasure-seeking, genetically modified future version of a human galactic civilization (Pg. 35)

This novel shows the retrieving artificial Intelligence developed by the culture. The novel features around the Idiran- culture war and the author plays on the theme of setting customs and traditions presenting various techniques. Postmodern space opera remains relatively new, capable of further evolution towards its own assurance and with the reader's expectations. Science Fiction has linked itself to many serious ideas, preparing citizens for the future, visualizing social problems and emulating literary masterpieces and works that have visibly addressed such goals, have received most of the attention from the readers.

According to "*The Cambridge Companion to Science Fiction*", many Science Fiction writers are, in many ways, our secular modern version of the Delphic oracles who try to look into the future. These writers have to construct imaginary worlds based on what is currently known about science and human history and put forward various future histories based on what we have at present and looking towards the future.

During the initial periods of modern globalism, in the 1970's, most Science Fiction writers were predicting that there would be some type of serious change on the planet Earth. However, they are not sure of where the change is heading to. What they are sure of is that there is not a viable future for this Earth based on a simple continuation of what is currently happening in our history. Robert Heinlein, the Science Fiction writer, in the 1980's, saw the world in which multinational corporations behaved like sovereign countries, because as the world globalized they had accumulated impressive political and real power. (*"The Cambridge Companion to Science Fiction", 2003*)

The Science Fiction writers have been considering, for a long time now, an upcoming global social explosion for several decades at present, even before the term globalization became widespread. Their imaginative minds that construct worlds and consequences all the time have been able to follow the outfit of history towards an imminent explosion. The increasing problem is that globalization has become stronger and multinationals have taken advantage of the possibilities. The world at present has lost those boundaries of context that the early capitalists had.

Taking Social Science Fiction into consideration, it is a term, although not heard too often, is one that describes most of today's Science Fiction literature. Social Science Fiction is the term given to literature that is concerned with the impact of scientific advance upon human beings. "It is to be set apart from the adventure or "gadget" Science Fiction which is characterized by simplistic plots and flat characters. Social Science Fiction is concerned with the problems presented to humanity by Technology and Science". (2003, Pg.12)

With all these types of Science Fiction, during the post-World War I era, the writers had been attempting to respond to the new world. In the 1920s and 30s writers, entirely unconnected with Science Fiction, were exploring new ways of telling a story and new ways of treating time, space and experience in the narrative form. The posthumously published works of Franz Kafka (who died in 1924) and the works of modernist writers such as James Joyce, T. S. Eliot, Virginia Woolf and other featured stories in which, time and individual identity could be expanded, contracted, looped and otherwise distorted. While this work was unrelated to Science Fiction as a genre, it did deal with the impact of modernity (Technology, Science and change) upon people's lives, and decades later, during the New Wave movement, some modernist literary techniques entered Science Fiction.

In 1937, with the publication of Editor John W. Campbell's "*Astounding Science Fiction*" and with the publication of stories and novels by such writers as Isaac Asimov, Arthur C. Clarke, and Robert A. Heinlein, Science Fiction began to gain the status as serious fiction. Campbell's guidance to his writers includes his famous dictum, "Write me a creature that thinks as well as a man, or better than a man, but not like a man." (1952, Pg.164) He emphasized on a higher quality of writing, giving special attention to developing a group of young writers who attached themselves to him.

The period of the 1940s and 1950s is often referred to as the Golden Age of Science Fiction. It is during this period when works like Samuel Beckett's novel *The Unnamable* (1988) and *Waiting for Godot* (1953) were influential upon the general writing in the 1950s. These plays reflect the theme of absurdity. In the earlier days, all

sense of place and time were dispensed, with the voice poised between the urge to continue existing and the urge to find silence and oblivion. In the latter periods, time and the paradoxes of cause and effect became thematic. Beckett's influence on the intelligentsia as well as the general influence of existentialism and the legal battles to publish books then classified as obscene made Science Fiction more sophisticated, especially in Britain.

William S. Burroughs (1914–1997) was the writer who finally brought Science Fiction together with the modernist trend in literature. With the help of the writer Jack Kerouac, Burroughs published *Naked Lunch*, the first of a series of novels employing modernistic deconstructions of conventional society. Burroughs showed visions of society as a conspiracy of aliens, monsters.

British novelist Kingsley Amis published "*New Maps of Hell" (1960)*, a literary history and examination of the field of Science Fiction. This serious attention from a mainstream, acceptable writer did a great deal of good, eventually, for the reputation of Science Fiction. Another major milestone was the publication, in 1965, of Frank Herbert's "*Dune*" (1965), a dense, complex, and detailed work of fiction featuring political intrigue in a future galaxy, strange and mystical religious beliefs, and the eco-system of the desert planet Arrakis. On the same limes, Roger Zelazny's "*The Chronicles of Amber*" (1970-1991) showed that the lines between Science Fiction, Fantasy, Religion, and social commentary could be very fine.

In Britain, the 1960s' generation of writers, named this genre as "The New Wave", by experimenting with different forms of Science Fiction, stretching the genre

towards realism, psychological drama and mainstream currents. The 1960s the New Wave was centred around the writing in the magazine *New Worlds* after Michael Moorcock assumed editorial control in 1963. William Burroughs was a big influence. The writers of the New Wave also believed themselves to be building on the legacy of the French New Wave artistic movement. Though the New Wave was largely a British movement, there were parallel developments taking place in American Science Fiction at the same time. The relation of the British New Wave to American Science Fiction was made clear by Harlan Ellison's original anthology "Dangerous Visions" (1967), which presents Science Fiction writers, both American and British, writing stories that press the boundaries of what is acceptable in a Science Fiction magazine. Isaac Asimov, writing an introduction to the anthology, labeled it the *Second Revolution*, after the *First Revolution* that produced the Golden Age.

The New Wave and their contemporaries placed a greater emphasis on style and a more high place form of storytelling. They also sought controversy in subjects that the older Science Fiction writers had avoided. Asimov noted that the Second Revolution had attributed to the development of the anthology, which made older stories more prominent. But a number of Golden Age writers changed their style as the New Wave hit. Robert A. Heinlein switched from his Campbellian Future History stories to stylistically adventuresome, sexually open works of fiction, notably Robert A. Heinlein's novel *Stranger in a Strange Land* (1961) and *The Moon Is a Harsh Mistress* (1965). Isaac Asimov wrote the New Wave *The Gods Themselves* (1972).

Science Fiction films took inspiration from the changes in the genre. Stanley Kubrick's, *A Space Odyssey* and *A Clockwork Orange* (2001) gave visual form to the genre's new style. A multitude of other films, including Lucas' short film *Electronic Labyrinth: THX 1138 4EB,* and *Soylent Green*, depicted a dystopian future. Ursula K. Le Guin extrapolated social and biological changes that were anthropological in nature. Philip K. Dick explored the metaphysics of the mind in a series of novels and stories that rarely seemed dependent on their Science Fictional content.

The nature of Science Fiction during the last two decades of the twentieth century can be seen as a classic figure of fictions. From one angle, the Twentieth Century gives the vision of success of Science Fiction as a genre, and as a series, it is outstanding component that has built to promote Science to higher steps. But from another standpoint, the shaping of Science Fiction becomes illegible in the world at the present years. By 1990 it was never possible for Science Fiction of affinity to get Science Fiction as a kind of "organism", whose phases were the phases of human life. This research thesis aims at bringing out the elements of humanism in select works of Isaac Asimov's Science Fiction. Before moving on to the subject, a brief overview of the works on and about Science Fiction will provide a better understanding of the need to analyze this genre of Fiction, from different points of view.

The origin of futuristic Science Fiction was brought out by Paul K. Alkon's *Origins of Futuristic Fiction* in the year 1987. This novel demonstrates how various forerunner modes of futuristic fiction and aesthetic developments that have aroused mostly in France, provided a basis for the eventual development of Science Fiction as a

specific genre in the nineteenth century. The Futuristic Science Fiction is the fiction that is written in the aspect of revolutionary and advanced perspectives. Alkon includes detailed readings of the texts such as Jacques Guttin's "*Epigone, Histoire du Siècle Future"* (1659) and Samuel Madden's *Memoirs of the Twentieth Century* (1733), through which he brought out the futuristic aspects. Alkon's study constructs a significant history to write about the future. His reasonable position for the original outlook on the origins of Science Fiction was that the circumstance for early future fictions was less technological than it was aesthetic, psychological, and philosophical; thus he reads these early works as solutions to formal problems, rather than as resolutions of socio-cultural conflicts. Alkon concludes his opinion that "…it is science which has suggested the possibility of new aesthetics, with corresponding forms such as the future history, based upon a reversal of previously accepted connections between believable conceptions of Science Fiction and its verisimilitude." (Pg. 354)

Edward James' *Science Fiction in the Twentieth Century* (1994) is handled as an accessible and comprehensive genre. James includes a good close look at the British Science Fiction world as well as its American complement. This is a very well organized study that sketches out the origin of the genre in the late-nineteenth-century, including details about publishing history and market realities, and taking into account as well the rise and influence of the various supporting communities. One of the chapters entitled "Reading Science Fiction" actually explores in detail various theoretical reading strategies pertinent to the genre. This is an excellent which can introduce non-specialists to the field of Science Fiction.

One of the best genre studies of early1980s is Mark Rose's "*Alien Encounters: Anatomy of Science Fiction"* (1981). Rose's approach towards Science Fiction is characterized as pre-postmodern. This characterization is influenced by the concept of structural methodology which examines Science Fiction from the pole of extrapolation on the focus of shifting Science Fiction emphasis as the genre of modernism. Glancing at this genre ahead, Mark Rose traces the outline of Science Fiction, to what has since become a recognizable shift in this genre. Rose uncertainly identifies Science Fiction as "a third phase in the genre's development", that has tracked the shift from the figure of speech Metaphor. This is because Science Fiction has traced out its identification by representing man's technological innovations.

Jackson's *Fantasy: The Literature of Subversion* (1981) is perhaps the best general study of the fantastic fiction. This provides a complex and convincing background to consider Science Fiction as a fantastic sub-genre. Jackson begins with Todorov's influential theoretical work on the fantastic literature, in which she has developed its theoretical context that obligates to the writers such as Freud, Lacan, Cixous, and Foucault.

Jameson, in his book *Archaeologies of the Future: The Desire called Utopia and other Science Fictions* (2005) argues that "the common-sense position on the protective nature of Science Fiction as a genre is today said as the representational one" (Pg. 296), underscoring that the work of contemporary Science Fiction is "to defamiliarize and restructure our experience of our own present". Jameson states that Science Fiction's multiple mock features, rather than attempting to imagine any kind of real feature, serve

the quite different function of tranScience Fiction norming our own present into the determinate past of something yet to come. (Pg. 299) As a result, Jameson argues, Science Fiction more properly functions as a marker of our present imaginative limitations than as any kind of future anticipation or expectation. In the words of Robert Markley, "Science Fiction demonstrates the contemporary failure of the utopian imagination; and as a genre, Science Fiction becomes tranScience Fiction that is formed into a reflection of our own absolute limits." (2005, Pg. 22)

Darko Suvin's *Positions and Presuppositions in Science Fiction* (1988) brings together the discussions of the field that emphasizes the importance of sociological and ideological analyses which takes into account, the unforeseen events of history; and they develop within his own very influential theory of "cognitive estrangement" as the central effect of Science Fiction's fictions. Suvin's work fuses formal and sociological discussions of Science Fiction and thinks about what critics and academics perform and suggests about what has to be improved and maintained.

David G. Hartwell's *Age of Wonders: Exploring the World of Science Fiction* (1985) shows the realities of Science Fiction as a commercial enterprise. He also notes, from the early to mid-1980s, "the diffusion and fragmentation of the field as it was then occurring—although Cyberpunk, the next "new" thing, doesn't actually make an appearance—sensibly situating this dispersal as yet one more example of the various crises which have marked Science Fiction since its beginnings." (Pg. 254) Hartwell's reading of Science Fiction values it as a literature of historical change and cultural

flexibility; and as such, the *Age of Wonders* is "...equally optimistic and expansive, concluding that "the golden age of Science Fiction is the present." (1999)

Feminist critics have produced an important body of writing in Science Fiction genre over the past twenty years, and have had a positive influence on Science Fiction scholarship's growing maturity and sophistication. One of the first signs of what was to become a large and complex body of critical work appeared in 1981, with the publication of Marleen S. Barr's *Future Females: A Critical Anthology*. Although occasional critical pieces had appeared before 1980, attesting to the increasing influence of women's and feminist voices in the field, such as Pamela Sargent's fine introductions to her three-volumed "*Women of Wonder*" (1976) collection, *Future Females* marks the first major critical enterprise devoted to the work of women Science Fiction writers. As Barr wrote in her introduction, "Science Fiction, the realm of bulging blobs who devour partially undressed, distressed damsels, is also the home of speculations about future females. Science Fiction should form a major current in the contemporary stream of feminist thought." Barr suggests her point that: the emergence of women's voices in Science Fiction during the 1960s and 1970s, continues to be one of the most significant developments in the field, and feminist scholarship has responded to this development, focusing on feminist and women's writing in particular, but by no means neglecting the field as a whole. One of the more exciting aspects of the feminist contribution has been the discovery of many works by women who wrote Science Fiction before there was anything like a coherent feminist movement.

Feminist criticism recognizes that there are political stakes in scholarly works, as there are in all aspects of our social and cultural life forms. It is this kind of criticism which insists on "re-inserting the object of study back into the world, in the same sense that Marxism reinserts its objects of study back into the world of institutionalized discourses and power formations. Feminism itself, like Marxism, although Marxist critics might not welcome the comparison— it is an intensely utopian enterprise, on one which finds a singularly appropriate imaginative location in the field of Science Fiction studies. She relates this to the ability of Science Fiction to alienate aspects of the "real"." (*The Cambridge Companion to Science Fiction, 2003)*

The ways in which feminism might or might not intersect with postmodernism have long been a source of critical debate, and this question of potential intersections is the focus of Jenny Wolmark's *Aliens and Others: Science Fiction, Feminism and Postmodernism* (1994). Mapping both the various parallels as well as the unquestionable contradictions between feminist and postmodernist positions, Wolmark (1994) explores what she terms their "shared theoretical moments." (Pg.108)

Joanna Russ's *To Write Like a Woman: Essays in Feminism and Science Fiction* (1995) is a particularly valuable document in the history of feminist Science Fiction criticism. It reprints some of the most important essays of this very influential Science Fiction writer and critic, including "Towards an Aesthetics of Science Fiction" (1975), "*Amor Vincet Foeminam*: The Battle of the Sexes in Science Fiction" (1980), and "Recent Feminist Utopias" (1981) *"The Cambridge Companion to Science Fiction"(2003)*

Istvan Csicsery-Ronay,(1917) a Science Fiction writer, suggests that Science Fiction "is not a genre of literary entertainment only, but a mode of awareness, a complex hesitation about the relationship between imaginary conceptions and historical reality unfolding into the future" (388). He suggests that we can understand the work of Baudrillard and Haraway—critical theorists who both make use of Science Fiction as a central trope in their cultural analyses—as examples of how Science Fiction has been tranScience Fiction normed from narrative genre into discursive practice. "*The Science Fiction of Theory*" (1991), identifies an important way in which Science Fiction-as-discourse functions allegorically as a strategy of cognitive estrangement in some influential constructions of "the postmodern condition."

The authors like Isaac Asimov, Arthur C. Clarke, Heinlein, and Herbert tried to bring out the real power of Science Fiction. Professor Scholes was influenced by these authors and he criticized Science Fiction in both positive and negative manner. He simplified the analyses of literary theory in his "Textual power" in 1985. On these three phases of analysis, it is arguable that Science Fiction before the 1960's was predominantly experiential. Science Fiction, to be the best among any other fiction., it should be accepted or agreed as versions of reality.

The prominence of Science Fiction and its great evolution as one of the famous genres of fiction has been proved by many contemporary Science Fiction authors. Among the top ranking authors of Science Fiction is Isaac Asimov, who has rooted his position strongly in this genre. He is the winner of number of Nobel Prizes and received many Science Fiction awards like Nebula Awards and Hugo Awards, which were given for great writers of Science Fiction every year all over the world.

Basically, Asimov is a humanist and his humanist ideas are found strewn all over his fiction. This research thesis is an earnest attempt to identify these elements of humanism as they are available in select short stories of Isaac Asimov. This thesis also underscores that howsoever science or technology advances it is humanism that operates it from within.

Chapter II

Isaac Asimov's Contribution to Science Fiction

Isaac Asimov, formerly known as Isaac Yudorich Ozimov, was born on January 2, 1920 in Russia. The pre-eminent, popular Science writer of the day and for more than 40 years, one of the best and best-known writers of Science Fiction, Asimov was not only a Science Fiction writer but also a well-regarded scientist with a Ph.D. in Biochemistry from Columbia University. Asimov is widely considered as a master of Hard Science Fiction and, along with Robert A. Heinlein and Arthur C. Clarke, he was considered one of the "Big Three" Science Fiction writers during his lifetime.

His "Foundation" trilogy in the 1980's is regarded by many as the greatest Science Fiction series ever written. *Robot I* (1950), actually a collection of short stories, is what introduced Asimov's famous Laws of Robotics. Asimov won seven 'Hugo' Awards, which is also the greatest Science Fiction award next to Nebula Award, which was won for the novel *The Gods Themselves* (1972) and also for the best novelette *The Bicentennial Man (1976).*

The other major series of Asimov are the *Galactic Empire* series (1950 and 1952) and the *Robot* series(1982). The *Galactic Empire* novels are explicitly set in an earlier history of the same fictional universe as the *Foundation Series.* He has also written hundreds of short stories, including the social Science Fiction *Nightfall* (1941), which, in 1964, was voted by the Science Fiction Writers of America as the best short Science Fiction story of all time. Asimov also has to his credit the *Lucky Starr,* a series of juvenile science-fiction novels using the pen name Paul French.

Asimov has put up his opinion that Science Fiction must involve itself with science and technology that should be present with different tangent approach. It must deal with the society noticeably different from the real one of its time, and this difference must involve in the level of Science and Technology. It should predate popular awareness of the connection between advancing and technological science and social change that brings up to the industrial revolution.

Isaac Asimov has produced nearly 500 books on a remarkable array of subjects. He has reached out not only to distant galaxies but also to the distant past for inspiration. Some of his prodigious works are: *Pebble in the Sky (1950), I, Robot (1950), Foundation (1951), Foundation and Empire (1952), Second Foundation (1953), The Caves of Steel (1954), The End of Eternity (1955), The Naked Sun (1957), The Human Body (1963), Guide to the Bible (1968, 1969), The Shaping of England (1969), ABC's of Ecology (1972), Annotated Paradise Lost (1974), Lecherous Limericks (1975), Animals of the Bible (1978), In Joy Still Felt (1980), Counting the Eons (1983), The Roving Mind (1983), The Robots of Dawn (1983), Robots and Empire (1985), Foundation and Earth (1986), Prelude to Foundation (1988), Nemesis (1989), Asimov Laughs Again (1992)* and others.

Asimov's early career is dominated by Science Fiction. It actually begins with short stories in 1939 and with novels in 1950. He continues with fiction until about 1958, till after the publication of *The Naked Sun*. He begins publishing nonfiction in 1952, co-authoring a college-level textbook called *Biochemistry and Human Metabolism*. Following the brief orbit of the first man-made satellite Sputnik I by the USSR in 1957, his production of nonfiction, particularly popular science books, finds a great increase,

with a consequent drop in his Science Fiction output. Over the next quarter century, he writes only four Science Fiction novels. Starting in 1982, the second half of his Science Fiction career begins with the publication of *Foundation's Edge*. From then until his death, Asimov has published several more sequels and prequels to his existing novels, tying them together in a way he has not originally anticipated, making a unified series.

"Nightfall", which is described as one of "the most famous Science-Fiction stories of all time" is actually the 32nd story written by Asimov and is published by *Astounding* in September 1941. In 1968, the same has been voted by the Science Fiction Writers of America as the best Science Fiction short story ever written. In his short story collection *Nightfall and Other Stories*(1969), Asimov writes, "the writing of 'Nightfall' was a watershed in my professional career ... I was suddenly taken seriously and the world of Science Fiction became aware that I existed. As the years passed, in fact, it became evident that I had written a 'classic'."

"Nightfall" is an archetypal example of social Science Fiction, a term coined by Asimov, to describe a new trend in the 1940s, led by authors including Asimov and Heinlein, away from gadgets and space opera and toward speculation about the human condition. By 1941 Asimov had begun selling regularly to *Astounding*, which was then the field's leading magazine. From 1943 to 1949, all of his published Science Fiction appeared in *Astounding*.

In 1942 he published the first of his *Foundation* stories—later collected in the *Foundation Trilogy*: *Foundation* (1951), *Foundation and Empire* (1952), and *Second*

Foundation (1953)—which recount the collapse and rebirth of a vast interstellar empire in a universe of the future. Taken together, they are his most famous work of Science Fiction, along with the Robot Series. Many years later, due to pressure by fans on Asimov to write another, he continued the series with *Foundation's Edge* (1982) and *Foundation and Earth* (1986), and then went back to before the original trilogy with *Prelude to Foundation* (1988) and *Forward the Foundation* (1992). The series features his fictional science of Psychohistory in which the future course of the history of large populations can be predicted.

His positronic robot stories begin at about the same time. They promulgate a set of rules of ethics for robots and intelligent machines that greatly influenced other writers and thinkers in their treatment of the subject. Asimov notes in one of his biographical pieces that he was largely inspired by the almost relentless tendency of robots up to that time to fall consistently into a Frankenstein plot in which they destroyed their creator.

The robot series has led to film adaptations. With Asimov's collaboration, in about 1977 Harlan Ellison wrote a screenplay of *I, Robot* that Asimov hoped would lead to "the first really adult, complex, worthwhile Science Fiction film ever made". The screenplay has never been filmed and has eventually been published in book form in 1994.

Besides movies, his Foundation and Robot stories have inspired other derivative works of Science Fiction literature, many by well-known and established authors such as Roger MacBride Allen, Greg Bear, Gregory Benford and David Brin. These appear to

have been done with the blessing, and often at the request, of, Asimov's widow Janet Asimov.

In 1949, the book publisher Doubleday's Science Fiction editor Walter I. Bradbury accepts Asimov's unpublished novelette "Grow Old Along With Me" (40,000 words) for publication, but requests that it be extended to a full novel of 70,000 words. The book appeared under the Doubleday imprint in January 1950 with the title of *Pebble in the Sky*. The Doubleday company goes on to publish five more original Science Fiction novels by Asimov in the 1950s, along with the six juvenile Lucky Starr novels, the latter under the pseudonym of "Paul French". Doubleday also has published collections of Asimov's short stories, beginning with *The Martian Way and Other Stories* in 1955. The early 1950s also saw the Gnome Press company publishing one collection of Asimov's positronic robot stories as *I, Robot* and his *Foundation* stories and novelettes as the three books of the *Foundation Trilogy*. More positronic robot stories have been republished in book form as *The Rest of the Robots* (1964).

When new Science Fiction magazines, notably *Galaxy* magazine and *The Magazine of Fantasy & Science Fiction*, appear in the 1950s, Asimov begins publishing short stories in them as well. He later refers to the 1950s as his "golden decade". A number of these stories are included in his *Best of* anthology, including "The Last Question" (1956), on the ability of humankind to cope with and potentially reverse the process of entropy. It was his personal favorite and considered by many to be equal to "Nightfall".

Beginning in 1977, Asimov has lent his name to *Isaac Asimov's Science Fiction Magazine* (now *Asimov's Science Fiction*) and has penned an editorial for each issue. There is also reportedly a short-lived *Asimov's SF Adventure Magazine* and a companion *Asimov's Science Fiction Anthology* reprint series, published as magazines.

Asimov's themes in his Science Fictional works touch almost all the prominent issues that have prevailed in the past and the present as well. Some of his major themes include Robots and Computers. A detailed analysis of these themes can attest the fact that he is an established Science Fiction writer.

The common theme that Asimov deals in most of his novels is Robots. They are humanoid robots that are pictured as soft, harmless and good servants of human beings. They cannot harm people, like they do in other Science Fiction writings or movies. His notions in writing Science Fiction stories were supportive to Science and Technology. However, though the Robots serve for humanity, it cannot replace the human place. In his Robot stories, Asimov suggests that, though a Robot is programmed with greater technological aspects, it is supposed to follow three laws that are common all kinds of Robots. They are:

- A Robot must not injure a human being or, through inaction, allow a human being to come to harm.
- A Robot must obey orders given to it by human beings, except where such orders would conflict with first law.

- A Robot must protect its own existence as long as such protection does not conflict with the first or second law.

As computers are technically used for software programming, Asimov handles this device in a different approach. Computers are usually activated for professional usage. But in Asimov's language, computers can serve people when they are activated as Robots. He has thus predicted many inventions through computers. The computer technology and Artificial Intelligence form the base for Science Fiction. The computers are programmed for performing magical innovations, automatic information, and behaving just as the Robots do for humans. The fictional computers work for their masters in serving all essential detective works in computer. Asimov has written about miniaturization on his article "The Last Question" about the periods of vacuum valve computers. Miniature is showing or bringing out the efficiency of such computer by focusing even on small programmed aspects of computer.

One of the extreme impressions of Asimov's fiction is that his writing style is extremely unornamented. His writing style has influenced many authors of twentieth century. Asimov has acknowledged a number of his fellow writers as superiorly talented persons. He mentions that Harlan Ellison – an American writer, who was specialized in speculative fiction, is one of the best writers in the world for his skill in art. Asimov's deepest knowledge in Science Fiction proves when he advices the readers and writers to handle their work in an in-depth manner. As such, it must be true that making the readers analyze and criticize with a thorough knowledge brings a worthy literature work, as it has been produced by Asimov.

Asimov maintains twist in his works that would be revealed at a situation where gets speculate. His works mostly do not focus traditional literary criticism, as he has the habit of centering his fiction on plot and clearly states his opinion through direct symbolisms. Science Fiction is, of course, about human concerns. It is written and read by human beings. But the culture from which it comes—the experiences, attitudes, knowledge, and learning which one must bring to it—these are not at all what we are used to as proper to literature. They may, however, be increasingly proper to human life. According to Professor Suvin, the last century has seen a sharp rise in the popularity of Science Fiction in all the leading industrial nations of the world. There will, in all probability, be more and more Science Fiction written, and therefore more and more of a need for its explication and criticism.

- About a year after inscribing the above onto my hard disk, I was reading an introduction by Isaac Asimov to a novel by a younger author and found this:
- A Science Fiction story must be set against a society significantly diferent from our own -- usually, but not necessarily, because of some change in the level of science and technology -- or it is not a Science Fiction story.
- He was contrasting Science Fiction with detective stories, where criminals are caught and order is restored:

Asimov's fiction appears to be aimed at exposition where science has got popularized around the 1950s; with a witty, retentive mind, his writing exhibits his logical ability. His wonderful imagination is evident in his works of fiction and

nonfiction. The creative capacity shown in his fiction is through plots, similes and metaphors.

Asimov begins to shape a future of his own logic – a logic named will, which has been mentioned in Robert Silverberg's Review "Reflections" (2008). With a novelette entitled *Foundation*, Asimov has launched a series of novelettes and novels in which he traces the future history of man's empire in space and the development of a science called "psychohistory," by which man could make reasonable forecasts of the future. He projects a history of the future in which mankind colonizes its own galaxy. His psychohistory, therefore, could work on vast numbers but only under the condition, as Asimov describes it, that "the human conglomerate be itself unaware of psychohistoric analysis in order that its reactions be truly random." (*New Scientist,* 1996, pg. 44)

The *Oxford English Dictionary* (Michael Prooffitt, 1997) credits his Science Fiction for introducing the words *Positronic* (an entirely fictional technology), *Psychohistory* (which is also used for a different study on historical motivations) and *robotics* into the English language. Asimov has coined the term *Robotics* without suspecting that it might be an original word; at the time, his belief is that simply the natural analogue of words such as mechanics and hydraulics, but for robots. Unlike his word *psychohistory*, the word *robotics* continues in mainstream technical use with Asimov's original definition. *Star Trek: The Next Generation* (2004, pg.154) by John Vornholt featured androids with "positronic brains", giving Asimov credit for conceiving this fictional technology.

Asimov has coined the term "robotics" in his 1941 story *Liar!* Asimov also coined the term "spome" in a paper entitled, "There's No Place Like Spome" in *Atmosphere in Space Cabins and Closed Environments*, originally presented as a paper to the American Chemical Society on September 13, 1965. It refers to any system closed with respect to matter and open with respect to energy capable of sustaining human life indefinitely.

Asimov has also coined the term "psychohistory" (fictional) in reference to a science in *Foundation* universe which combines history, sociology, and mathematical statistics to make general predictions about the future behavior of very large groups of people, such as the Galactic Empire. It was first introduced in the five short stories (1942–1944) which would later be collected as the 1951 novel *Foundation*. Somewhat later the term "psychohistory" was applied by others to research of the effects of psychology on history.

The prolific Asimov has also written mysteries and fantasy, as well as much nonfiction. Most of his popular science books explain scientific concepts in a historical way, going as far back as possible to a time when the science in question was at its simplest stage. He often provides nationalities, birth dates, and death dates for the scientists he mentions, as well as etymologies and pronunciation guides for technical terms. Examples include *Guide to Science*, the three volume set *Understanding Physics* (1966), *Asimov's Chronology of Science and Discovery*, (1993) as well as works on astronomy, mathematics, the Bible, William Shakespeare's writing and chemistry.

Chapter III

Isaac Asimov as a Humanist

> *There is no place in the Humanist worldview for either immortality or God in the valid meanings of those terms. Humanism contends that instead of the gods creating the cosmos, the cosmos, in the individualized form of human beings giving rein to their imagination, created the gods.*"
>
> – Corliss Lamont, "The Philosophy of Humanism" (1982)

According to Tony Davis, humanism is "a system of thought that rejects religious beliefs and centers on humans and their values, capacities, and worth devotion to of study of the humanities." (1997, pg. 23) The word "humanism" has a number of meanings. It is believed that since authors and speakers often do not clarify which meaning they intend those trying to explain humanism can easily become a source of confusion. Fortunately, each meaning of the word constitutes a different type of humanism – the different types being easily separated and defined by the use of appropriate adjectives.

The history of the term *humanism* is complex but enlightening. It was first employed (as *humanismus*) by 19th-century German scholars to designate the Renaissance emphasis on classical studies in education. These studies have been pursued and endorsed by educators known, as early as the late 15th century, as *umanisti*—that is, professors or students of Classical literature. The word *umanisti* is derived from the *Studia Humanitatis*, a course of classical studies that, in the early 15th century, consisted of grammar, poetry, rhetoric, history, and moral philosophy. The *Studia Humanitatis* were held to be the equivalent of the Greek *paideia*. Their name itself was

based on the Latin *humanitas*, an educational and political ideal that was the intellectual basis of the entire movement.

The past history of humanism can be found in the Golden Age of Greek Philosophy. Parmenides (515 BC), a philosophical rationalist, judges on humanism that "the real is rational and the rational is real. It is the same thing that can be thought and that can be." He claims that an understanding of the world has to be under the control of one's reason and that no other criteria should be considered. On the other hand, Democritus (460-370 BC) speculates on the theory of evolution and physics that had attacked religion and superstitions. He believed that observation and reasoning is the source of knowledge about the world.

The first notable humanist of whom there is a reliable record is Protagoras (450 BC), a Greek teacher and philosopher, Protagoras formulated the famous dictum "Man is the measure of all things, of things that are that they are, and of things that are not that they are not." (Dirk Van Miert, 2009) This statement was at the time a daring and unorthodox thought.

Socrates (470-399 BC), Plato (384-345 BC) and Aristotle (384-322 BC) are not really humanists, but humanistic elements are seen in their philosophy. They were religious but contemptuous of the idea that truth comes to us through supernatural or other religious means. Their position is that, the readers can understand well about the human values by studies of what humans are good at doing, and that the essence of

human nature is known from observation and studies of what humans are. Aristotle's Naturalistic Ethics separates his philosophy from Plato and Socrates.

Aristotle, as everyone knows, is the most universal of Greek philosophers, and the first great naturalist in philosophy and gave power to the life of reason by clarifying the laws of logic. Also, he is a founder of science as an organized body of fact, and he has explored and extended practically the whole range of knowledge as it existed in his day. His ethics stressed the happiness of humankind in the here and now and that the human mind was able to attain moral truth without any supernatural help. The ancient world has made a contribution to humanism in that it is neither irreligious nor anti-religious but brought about new ways of thinking. Human beings gradually became aware of their self.

The American Humanist Association (AHA) is an educational organization in the United States that advances Humanism, a progressive philosophy of life that, without theism or other supernatural beliefs, where most of the popular science fiction writers will be a member of this association. According to the AHA, Humanism is

- a progressive philosophy of life,
- that without supernaturalism,
- affirms our ability and responsibility
- to lead ethical lives
- of personal fulfillment
- that aspires to the greater good of humanity.

This Association does not exactly define what Humanism is, but it brings out the tenets and traits of humanism.

Thus, it is given to understand that Humanism is the term applied to a variety of beliefs, methods, and philosophies that place central emphasis on the human realm. Most

frequently, however, the term is used with reference to a system of education and mode of inquiry that developed in northern Italy during the 13th and 14th centuries and later spread through continental Europe and England.

Of all the different varieties of humanism, the interest of this research is on 'Literary Humanism,' which is actually a devotion to the humanities or literary culture. Literary humanism is distinct from the models that account for animal or mechanical behaviour, in which man is seen as a conscious agent with feelings, ideals, and intentions that affect his behaviour. In the opinion of various philosophers, humanistic thought is concerned with human growth, personal fulfillment, and self-actualization through increased self-responsibility, self-determinism, correspondence between internal feelings and external expressions and compassion as ends to be pursued. The physical and social environment may interfere with the expression of one's own inner potentialities and thus exert a major impact upon personality development and change

In reality, the concept of humanism is felt to be treated more narrowly, as a social movement tied to the nineteenth century free thought groups and to twentieth century liberal religions. Depending on the specific emphases of individual humanists, they may call themselves religious, secular, naturalistic, ethical, or scientific. In a broad sense, as Weldon (1999) says, "humanism can be categorized as a phenomenon of the modern era that has attracted the attention and interest primarily of intellectuals in the West. When considered solely as an intellectual world view, it encompasses the general scientific, philosophical, and religious perspectives of modern Western thinkers. In many respects, it is the ideology of modernity. (Varela, 2009)

Humanism can also be better understood when considered in the context of the attitudes or perspectives it is normally contrasted against. On the one hand is supernaturalism, descriptive of any belief system which stresses the importance of a supernatural, a domain separate from the natural world. Quite often this sort of philosophy describes the supernatural as being more "real" or at least more "important" than the natural, and hence as something one should strive for — even if it means denying one's needs, values and experiences in the here and now.

On the other hand are types of scientism, which take the naturalistic methodology of science so far as to deny genuine importance or, at times, even reality to human feelings, experiences, and values. Humanism is not opposed to naturalistic explanations of life and the universe; on the contrary, humanists see it as the only viable means of developing knowledge of this world. What humanism does oppose are the dehumanizing and depersonalizing tendencies of modern science.

Therefore, it can be concluded then that a philosophy, world view or system of beliefs is "humanistic" whenever it shows a primary or overriding concern with the needs and abilities of human beings. Its morality is based upon human nature and human experience. It values human life and our ability to enjoy our lives so long as we don't harm others in the process.

In general, humanists reject theism (belief in God) and supernaturalism (behaving more than natural or divinity) and emphasize humankind's responsibility for its own well-being. This humanism must not be confused with Renaissance humanism, literary "new

humanism," or Christian humanism, all of which have some position in common with it but, mostly the quality of its thought that seeks to encompass human knowledge and experience in a broad synthetic manner. In this way, it functions as a substitute for religion and not merely a negation of it. Humanism advances both a destructive critique of religion as well as a positive program to supplement it.

Bringing out with it new conditions and new scientific and philosophic premises, the twentieth century has seen the rise of humanism proper; developments in the United States proved to be of singular importance in the rise of this new religious point of view. It is a matter of fact that humankind in the scientific age has to learn to live without certainty. Humanists do insist on this need for people to internalize the methods of modern science, especially its tentativeness and its open-mindedness.

During the period between 1918 and 1937, humanism has been attacked by Protestant modernists, from various denominations, liberal whose theological positions were closest to humanism, because they believed humanism had gone with extreme depth. It was, they contended, an invalid religious position, overly rationalistic and therefore it made them unsatisfy. Rather than a religion, humanism is merely simple moralism. Furthermore, humanism ís also considered as an optimistic assessment of mankind's abilities, excluding a clear understanding of the tragic elements of human existence. Finally, many modernists find it to be an unpleasant aspect. But the fact is that humanism is not just confined to a religious dialogue.

During the late 1920s, a number of like-minded intellectuals write books espousing this humanist point of view. The young British biologist Julian Huxley (1887-

1975), grandson of T.H. Huxley, publishes his personal expression of a humanistic faith, Religion without Revelation. In America, social commentator Walter Lipmann (1889-1974) writes *Preface to Morals (1960),* a long portrait of an age transformed by "the acids of modernity." (1994, Pg. 84) Similar views have been presented in E.A. Burttís (1892-1989) *Religion in an Age of Science* 1929), and John Dewey's *A Common Faith* (1934). The motive driving much of this literature is the belief that the downfall of traditional religion has left a spiritual vacuum. Men and women are left aimless in the modern world and need some way to integrate personal and cosmic elements of life, an honest way that harmonizes with modern knowledge and social conditions. The striving for integration characterizes this humanist view.

The political views of perhaps the great majority of humanists in both Britain and the United States at this time are distinctly Socialistic. Humanism's global vision and emphasis on human betterment makes it quite congenial to Marxism and to the interests of labour. Humanism also exhibits a strong pacifist strain; World War I, many of the humanists thought, merely showed the folly of militarism.

Humanism becomes a truly international movement at mid-century. The American Humanist Association (AHA) is formed in 1940, and groups in other countries soon followed suit. Ethical Culturists slowly came to see themselves as essentially humanistic, and began to cooperate more and more with humanists on common causes. The British Humanist Association was founded in 1963 through the union of the Ethical Culture groups and the RPA. Earlier, in 1952, American and British humanists had met

with like-minded groups in Western Europe, America, and India and formed the International Humanist and Ethical Union.

Humanism is unusual in that it finds its origins in a grass-roots political movement based in a strong social reform tradition. The Indians de-emphasize the intellectualism that pervades most of the Western forms of humanism. In all of these countries, humanism reflects a very similar worldview. Democracy and science play key roles in defining the positive outlook of humanists, providing it with the fundamental assumptions upon which specific religious, social, and political issues are considered.

The power of human thought and empirical discoveries have presented a powerful reply to the traditional religious explanations of the world. As much as anything, the utility of science, its ability to provide human beings with both knowledge and control over the world just as supernatural religion claims to doo drives the humanist imagination. It can be called responsible for all of its mistakes, but it is also in control of its own future. This last point is what drives humanists in their efforts to make a coherent response to religion and justifies the name humanism.

In general, humanism is an anti supernaturalistic world-view that relies heavily on both the findings and the methods of science to understand humanity's place in the world. Its ethical system is based on an assumption about individual worth and the ability of human beings to better their own lives and those of the rest of humanity. Out of this ethical point of view, specific issues such as human rights, population growth, arms control, and international cooperation have achieved especial prominence. Humanists have also been strong advocates of sex education as well as the liberalization of

euthanasia, abortion, and divorce laws, all issues, they claim, that give individuals greater freedom to control their own lives. An overall assessment of the ideological stance of late-twentieth-century humanism would probably categorize it as a form of liberal individualism, a significant change from its generally socialist leanings of the 1930s. Yet, inasmuch as humanism is a worldview espoused by liberal intellectuals, it follows closely the values and political leanings of the intelligentsia, so the shift is not surprising.

The most important satisfying definition of Science Fiction is "the literature of change." That is, Science Fiction deals with the human condition by practicing the continuous evolutionary change, in all the aspects of humanism. The subject Science and the genre Science Fiction, enhances both the moralistic teaching and the entertainment aspects within storytelling by addressing new concepts developed in technology and by providing further insights into human behaviour. As Science Fiction writers incorporate science into their narratives, they attempt a search for answers beyond any boundaries that limits the explanations concerning humans and human behaviour. Thus, Science Fiction writers have triggered a human fascination with questions that we may have pertaining to human existence. According to Courtney Stripes "Thus the modern understanding of humanism is given as the faith that, through science humankind can know the truth; and, science enables humans to satisfy their needs. It does nothing to change them. They are no different today from what they have always been. There is progress in knowledge, but not in ethics. (*The Key to the Truth, 2003*) This is how there are ethics that have been prescribed to be followed while determining the characteristics

of the robots. This delineation of rules are accounted under the lately popular discipline called "roboethics."

Some of the ethical problems derived from the Second and Third Industrial Revolutions are:

- Dual-use technology.
- Environmental impact of technology.
- Effects of technology on the global distribution of wealth.
- Digital divide, socio-technological gap.
- Fair access to technological resources.
- Dehumanization of humans in the relationship with the machines.
- Technology addiction.
- Anthropomorphization of the machines.

These are dealt with and sorted out by an emerging discipline called "roboethics", a term coined by Roboticist Gianmarco Veruggio in 2002, referring to the morality of how humans design, construct, use and treat robots and other artificially intelligent beings. It considers both how artificially intelligent beings may be used to harm humans and how they may be used to benefit humans. Veruggio also served as chair of an Atelier funded by the European Robotics Research Network to outline areas where research may be needed. The road map effectively divided ethics of artificial intelligence into two sub-fields to accommodate researchers' differing interests. As such, machine ethics is concerned with the behaviour of Artificial Moral Agents (AMAs).

It is the first time in history that humanity is approaching the challenge to replicate an intelligent and autonomous entity. This compels the scientific community to examine closely the very concept of intelligence in humans, animals, and of the

mechanical, from a cybernetic standpoint. In fact, complex concepts like autonomy, learning, consciousness, evaluation, free will, decision making, freedom, emotions, and many others shall be analyzed, taking into account that the same concept shall not have, in humans, animals, and machines, the same reality and semantic meaning.

From this perspective, it can be seen as natural and necessary that robotics drew on several other disciplines like Logic, Linguistics, Neuroscience, Psychology, Biology, Physiology, Philosophy, Literature, Natural history, Anthropology, Art, Design. Robotics de facto unifies the so-called two cultures, science and humanities. The effort to design Roboethics should take care of this specificity. This means that experts shall view robotics as a whole in spite of the current early stage which recalls a melting pot so they can achieve the vision of the robotics' future.

As Roboethics is a human-centered ethics, it has to comply with the principles state in the most important and widely accepted Charters of Human Rights:

- Human dignity and human rights.
- Equality, justice and equity.
- Benefit and harm.
- Respect for cultural diversity and pluralism.
- Non-discrimination and non-stigmatization.
- Autonomy and individual responsibility.
- Informed consent.
- Privacy.
- Confidentiality.
- Solidarity and cooperation.
- Social responsibility.

- Sharing of benefits.
- Responsibility towards the biosphere.

Asimov considers himself as a Humanist and has served as the President of the American Humanist Association. As a matter of fact, he has been a strong proponent of scientific reasoning, who adamantly opposes creationists, religious zealots, and mysticism. For a long time he describes himself as an agnostic, but later he calls himself as an atheist. But all said and done, his fiction is never hostile to religion. Asimov did not oppose genuine religious feeling in others. Although he is an atheist, he always takes pride of his Jewish heritage.

During his presidency of the American Humanist Association, Asimov has been opposed to the Protestant sub-group known as Evangelical Christians. He has felt that all Evangelicals are "fundamentalists": narrow-minded, Bible-toting bigots, responsible for most of the world's tribulations. Having dismissed Evangelicals as anti-intellectual and dangerous, he likens them to Omar, the Muslim caliph, who burned the library of Alexandria saying, "if the books (therein) agree with the Koran, they are not necessary and may be burned; if they disagree with the Koran, they are harmful and must be burned." Evangelicals "think that all of knowledge will fit into one book called the Bible. and refuse to allow that there is even the conceivability of an error in there." (*The Humanist*,. 1989, pg. 5).

In 1984, Isaac Asimov was named “Humanist of the Year” by the American Humanist Association. He was one of the world’s most prolific writers by writing over

500 books and over 9,000 letters. He has served as the director of the American Humanist Association from 1989 to 1992. Writing in *Free Inquiry,* he says,

> "I am an atheist, out and out. It took me a long time to say it. I've been an atheist for years and years, but somehow I felt it was intellectually unrespectable to say one was an atheist, because it assumed knowledge that one didn't have. Somehow it was better to say one was a humanist or an agnostic. I finally decided that I'm a creature of emotion as well as reason" (1991, pg.44)

Isaac Asimov, in his short story collection *The Complete Robot*(1982) introduces the **Three Laws of Robotics** which are often shortened to **The Three Laws**. These are a set of rules devised by him, introduced in his short story *Runaround* (1942). It was written in October 1941 and first published in the March 1942 issue of "*Astounding Science Fiction*". It appears in the collections *I, Robot* (1950), *The Complete Robot* (1982), and *Robot Visions* (1990). As mentioned in the previous chapter, these rules state that a robot may not injure a human being or, through inaction, allow a human being to come to harm, must obey the orders given to it by human beings, except where such orders would conflict with the First Law and must protect its own existence as long as such protection does not conflict with the First or Second Law.

In "*The Rest of the Robots"* published in 1964, Asimov notes that when he begins writing in 1940, he states that "one of the stock plots of Science Fiction was the robots that were created and destroyed their creator. Knowledge has its dangers, but it is the response to be a retreat from knowledge. Knowledge has to be used as itself a barrier to the dangers that brings out to the society." (pg.6)

In May 1939 Asimov attends a meeting of the Queens Science Fiction Society where Asimov meets Ernest and Otto Binder, who had recently published a short story *I, Robot* (1950) featuring a sympathetic robot named Adam Link who is misunderstood and motivated by love and honour. This is the first of a series of ten stories; the next year "*Adam Link's Vengeance*" (1940), featuring Adam thinking that "a robot must never kill a human, of his own free will." Asimov has admired the story and has taken inspiration of the idea.

Asimov attributes the Three Laws to John W. Campbell, from a conversation that took place on 23 December 1940. Campbell claimed that Asimov had the Three Laws already in his mind and that they simply needed to be stated explicitly. Several years later Asimov's friend Randall Garrett attributed the Laws to a symbiotic partnership between the two men – a suggestion that Asimov adopts enthusiastically. According to his autobiographical writings Asimov includes the First Law's "inaction" clause because of Arthur Hugh Clough's poem *The Latest Decalogue* (2011), which includes the satirical lines "Thou shalt not kill, but needst not strive officiously to keep alive."

Although Asimov pins the creation of the Three Laws on one particular date, their appearance in his literature has happened over a period of time. He writes two robot stories with no explicit mention of the Laws, "*Robbie*"(1940) issue of "*Super Science Stories"* magazine as *Strange Playfellow (1939)*, and *Reason* (1941). He assumes, however, that robots would have certain inherent safeguards. "*Liar*!"(1941), his third robot story, makes the first mention of the First Law but not the other two. All the three laws finally appear together in *Runaround*"(1982). In his short story *Evidence (1946)*

Asimov lets his recurring character Dr. Susan Calvin expounds a moral basis behind the Three Laws. Calvin points out that the human beings are typically expected to refrain from harming other human beings (except in times of extreme duress like war, or to save a greater number) and this is equivalent to a robot's First Law. Likewise, according to Calvin, society expects individuals to obey instructions from recognized authorities such as doctors, teachers and so forth, which equals the Second Law of Robotics. Finally humans are typically expected to avoid harming themselves, which is the Third Law for a robot.

The plot of "Evidence" (1946) revolves around the question of telling a human being apart from a robot constructed to appear human – Calvin reasons that if such an individual obeys the Three Laws he may be a robot or simply "a very good man." Another character then asks Calvin if robots are very different from human beings after all. She replies,"world's different. Robots are essentially decent." (pg. 86)

In "Little Lost Robot"(1947) several robots like NS-2, or "Nestor" robots, are created with only part of the First Law. It reads, "A robot may not harm a human being." This modification is motivated by a practical difficulty as robots have to work alongside human beings who are exposed to low doses of radiation. Since their positronic brains are highly sensitive to gamma rays- radiation of high extreme frequency, the robots are rendered permanent by measure reasonably safe for humans. The robots are being destroyed attempting to rescue the humans who are in no actual danger but "might forget to leave" the irradiated area within the exposure time limit. Removing the First Law's "inaction" clause solves this problem but creates the possibility of an even greater one: a

robot could initiate an action that would harm a human (dropping a heavy weight and failing to catch it is the example given in the text), knowing that it is capable of preventing the harm and then decide not to do so. These are occasions where the readers are given to understand Asimov's belief that robots or any mechanical device with artificial intelligence need to be confined to a set of ethics, in the interest of the humans. Asimov also attempts to define humanness as he furthers the idea of man's role as the creator of Artificial Intelligence. However, he seems to be highlighting the benefits rather than the dangers of Artificial Intelligence for all mankind. The following chapter describes in detail the tenets and traits of humanism, as they are found in select short stories of Isaac Asimov.

Chapter IV

Elements of Humanism in Asimov's Fiction

The American author of Russian birth, Isaac Asimov, is credited with coining the term "robotics" and popularizing numerous Science Fictional and scientific concepts. Certainly, Asimov's famous three laws of robotics serve as a wonderful narrative mirror to human nature and to the various challenges the social mores can produce. As a humanist, Asimov believes in the transformative power of the written word and the necessity for any writer to preserve one's stories and musings in any way that one can. This chapter analyses the elements of humanism as they are found in the robots and mechanical devices of select Science Fiction short stories of Asimov.

Asimov's novels focus mainly on the simplest of concepts, one of which is 'are robots the key to human progress or the end of our species?' Asimov grows up in a time where robots are portrayed as crazed mechanical monsters bent on destruction. He has a fondness for Science Fiction and he begins to think of more positive aspects for robots. He has a thought that, after all, if the population blindly used other mechanical devices without a second thought, then why cannot humanity embrace the same for robots? Asimov imagines a world where robots were helpers and not adversaries.

At 19, Asimov's first story *Cosmic Corkscrew (1938)* is published in the "*Astounding Magazine*" (1930). Different from his contemporaries, his robots are highly intelligent and complex and his tales center on how humans would react to this new type of robot in a love-hate sort of way. For example, in the early works of the *I, Robot* (1950) series, a domesticated and obedient robot is created and named Robby. The daughter becomes very attached to the Robot and they form a strong friendship. The

parents, however, are nervous about Robby and this new technology and decide to get rid of him. He is relocated to an industrial factory but the daughter is so distraught that Robby is gone, her father has a change of heart and brings her to the factory where he is now working. While there, Robby saves the girl's life and the family then fully accepts him.

In his short story collection *The Complete Robot* (1982), Asimov has dealt with the aspects of humanism by presenting this abstract through the robots. The short stories in this collection that have robots, which are found to have imbibed the traits of humanism are:

- *Robbie* (1940)
- *Run Around* (1941)
- *Liar* (1941)
- *Catch that Rabbit* (1944)
- "*Little Lost Robot*" (1947)
- *Satisfaction Guaranteed* (1951)
- *First Law* (1956)
- *Let's Get Together* (1957)
- *Lenny* (1958)
- *A Boy's Best Friend* (1975)
- *Point of View* (1975)
- *The Tercentenary Incident* (1976)
- *The Bicentennial Man* (1976)

A Boy's Best Friend (1975) is a Science Fiction short story by Asimov, published in 1975. This story is set far in the future when habitation of the Moon has already taken place. Jimmy Anderson is a Moon-born ten-year old, and he owns a robotic dog named

Robutt, whom he comes to love. He can go on the moon freely and securely as he is moon-born and has Robutt with him. However, his parents want him to have a real dog, a Scottish Terrier. Since Moon-borns cannot visit Earth, his parents bring the dog to the Moon. But since the relationship between Jimmy and Robutt is so close, Jimmy decides not to have the 'living' dog and keep the 'fake' dog Robutt instead. Through this short story, Asimov has brought out that, to how far a distance can a robot being make fondness towards itself by a human being. It is understood that, not only a human can make love, care, concern on one another, but also a non-human robot could make such a progress towards humanism.

Point of View (1975) is a short story by Asimov that first appeared in July 1975. Due to the poor reception it had, it was only reprinted in the collection *The Complete Robot* (1982). It is one of the connected series of such stories concerning a fictional computer called Multivac. Roger's father works with a supercomputer called a Multivac, which has been malfunctioning lately as it comes up with different solutions each time to problems it is asked to solve. After coworkers tell him to take a break, he takes Roger out to lunch. His father tells him what he thinks is wrong with the Multivac, and then from this Roger decides that it is like a child, and like one needs a break from work, saying that if you made a kid do work all day than it would get stuff wrong on purpose. His father reassures this inference with Roger, who confirms it saying, "Dad, a kid's got to play too." (Pg.58)

Asimov has tried to convey through this short story that one needs relaxation for their busy scheduled life, even if it is a machine. Getting drained and seeking some

refreshment deals with the humans' physical and mental natures. But in this short story it is seen that even a machine seeks some entertainment for keeping itself relaxed from involving in work so deep.

"Robbie" (1940) is a Science Fiction short story by Asimov. It is his first robot story as such. It is first published in the September 1940 issue Super Science Stories magazine as *"Strange Playfellow"*, a title that is chosen by Editor Frederik Pohl and described as "distasteful" by Asimov. A revised version of Robbie was reprinted under Asimov's original title in the collections *I, Robot* (1950), *The Complete Robot* (1982), and *Robot Visions* (1990). *"Robbie"* is the fourteenth story written by Asimov, and the ninth to be published. The story is also part of Asimov's Robot Series, and is the first of Asimov's positronic robot stories to see publication. This story centers around the technophobia (i.e. fear or dislike of advanced technology, especially computers) that surrounds robots, and how it is misplaced. Almost all previously published Science Fiction stories featuring robots followed the theme 'robot turns against creator'; Asimov has consistently held the belief that the Frankenstein complex- fear of mechanical men, was a misplaced fear, and the majority of his works attempted to provide examples of the help that robots could provide humanity.

In 1996 (1982 in the original magazine version), a mute RB series robot, nicknamed Robbie, is owned by the Weston family as a nursemaid for their daughter, Gloria. Gloria's mother, however, is a local socialite whose opinions are guided by those of the surrounding populace. When publicly available robots are the newest craze, she basks in the prestige of owning Robbie. However, an anti-robot sentiment quickly rises throughout the world (a combination of religious fanaticism and labor unions) and

suddenly Mrs. Weston becomes concerned about the effect a robot nursemaid would have on her daughter, since Gloria is more interested in playing with Robbie than with the other children and might not learn proper social skills. Two years after purchasing Robbie, Mr. Weston gives in to his wife's badgering and returns Robbie to the factory.

Since Gloria is so attached to the robot, whom she sees as her best friend, she ceases smiling, laughing and enjoying life. Despite the continued efforts of her parents, who buy her a dog to substitute for Robbie, she refuses to accept the change and her mood grows progressively worse. Her mother, who rationalizes that it would be impossible for Gloria to forget Robbie when she is constantly surrounded by places where she and Robbie used to play, decides that Gloria needs a change of scenery to help her forget. Mrs. Weston convinces her husband to take them to the New York City. Unfortunately, the plan backfires when Gloria assumes that they are going in search of Robbie, believing that they are going to hire private detectives for the job.

After the Westons take their daughter to every conceivable tourist attraction, Mr. Weston, almost out of ideas, approaches his wife with a thought: Gloria could not forget Robbie because she thinks of Robbie as a *person* and not a *robot*; and so, if they take her on a tour of a robot construction factory, she would see that he is nothing more than metal and electricity. Impressed, Mrs. Weston agrees to a tour of the corporate facilities of the U.S. Robots and Mechanical Men, Inc., which is a fictional 21st century manufacturer of robots that appears in Isaac Asimov's *Robot* series of novels and short stories. (U.S. Robots was founded in 1982 by Lawrence Robertson. Dr. Susan Calvin was the first, and for many years, the only Robot Psychologist here, and is the main character in many of Asimov's short stories, usually dealing with robot problems in the laboratory.)

During the tour, Mr. Weston requests to see a specific room of the factory where robots construct other robots. That room holds a surprise for Gloria and Mrs. Weston: one of the robot assemblers is Robbie. Gloria runs in front of a moving vehicle in her eagerness to get to her friend and is rescued by Robbie. Mrs. Weston confronts her husband: he had set it all up. Robbie is not an industrial robot and has no business being there. Mr. Weston knew that if he managed to get Robbie and Gloria back together, there would be no way for Mrs. Weston to separate them. When Robbie saves Gloria's life, an unplanned part of the reunion, Mrs. Weston finally agrees that he might not be a soulless monster, and gives in.

In this short story, it is found that, in how extreme could a robotic figure is attached with the girl Gloria, and the girl's longing for that robot, when it disappears from her. The humanistic tendencies were portrayed even through the machine characters.

Let's Get Together (1957) is yet another Science Fiction short story, which was originally published in the February 1957 issue of "Infinity Science Fiction", (1955), and included in the collections *The Rest of the Robots* (1964) and *The Complete Robot* (1982). As such, the robots in this tale are very different from Asimov's norm, being quite happy to work as war machines. The tale is also based on a continuation of the Cold War hostility, rather than the peaceful unified world of most of the robot stories.

The Cold War has endured for a century and an uneasy peace between "Us" and "Them" exists. A secret agent arrives in America from Moscow with the story that robots identical to humans in appearance and behaviour have been developed by them and that

ten have already been infiltrated into America. When they get together, they will trigger a nuclear-level explosion (they are components of a total conversion bomb).

A conference of the greatest minds in American robotics is hastily convened to decide how to detect these robots and how to catch up on this technology. Almost too late, the head of the Bureau of Robotics realizes that their plan exactly anticipates this: the infiltrator robots have replaced scientists invited to this conference, and while the explosion would kill a relatively small number of people, it would precisely include America's top robotics experts, and therefore the conference must be called off, even though people are already travelling to it.

His guess is proven correct almost immediately, as ten of the scientists en route explode via self-destruct charges. However, the Head of the Bureau wonders how they could have realized and acted upon the discovery of the plan so quickly. The truth dawns on him; he pulls a blaster and blows the secret agent's head off. The body slumps forward "leaking not blood, but high-grade machine oil." (Pg.210)

In this short story, it can be noticed that Robots have concerns on humans and they try to take steps to involve themselves in risk to save humankind from trouble. The automatic power of thinking and the merciful quality of humans are also found in these robots.

The Tercentenary Incident (1976) is first published in the August 1976 issue of "Ellery Queen's Mystery Magazine*"(May,2014)*, and reprinted in the collections *The Bicentennial Man (1999) and Other Stories* (1976) and *The Complete Robot* (1982). Ellery Queen, Editor, Frederic Dannay, contacts Asimov in the fall of 1975 with a story proposal: the August 1976 issue, which would be on the stands during the United States

Bicentennial, would include a contemporary mystery set in 1976 and a historical mystery set in 1876. He wants a Science Fiction mystery set in 2076, and Asimov agrees to write one. Asimov's original title for the story is "Death at the Tercentenary", but when the story appeared he starts liking Dannay's title better and decides to retain that title.

This story begins on 4 July 2076. The United States itself is no longer a sovereign country, but part of a Global Federation. The story details the speech of the 75th president, Hugo Allen Winkler, who is described by Secret Service agent Lawrence Edwards as a "vote-grabber, a promiser", who has failed to get anything done during his first term in office. The president is walking near the Washington Monument, and suddenly disappears. He reappears very shortly afterwards on a guarded stage and gives a stirring speech which is quite different from the kind he usually makes. Two years after that occurrence, Edwards talks to a government official named Janek, to whom he describes a possible murder weapon, a disintegrator. Edwards explains that a robot double of the President exists as a security measure, and then correctly surmises that it is not the robot double who has died, but the President himself. The robot has then taken office.

First Law (1956) is a Science Fiction short story, first published in the October 1956 issue of "Fantastic Universe magazine"(1950) and later in the collections The Rest of the Robots (1964) and The Complete Robot (1982). The title of the story is a reference to the first of the Three Laws of Robotics, that a robot may not injure a human being or, through inaction, allow a human being to come to harm, that a robot must obey the orders given to it by human beings, except where such orders would conflict with the

First Law and that a robot must protect its own existence as long as such protection does not conflict with the First or Second Law.

The story is very short, only 3 pages in length, and takes the form of Mike Donovan's account of an incident that occurred on Titan, one of Saturn's moons. He tells of a malfunctioning robot named Emma that escapes from the base and is later encountered by Donovan while he is lost during a storm. While Donovan's life is in danger, Emma choses to protect its offspring, a small robot that it has built, instead of assisting him. This is a direct violation of the First Law of Robotics, which states that "a robot may not injure a human being, or through inaction allow a human being to come to harm." Apparently, maternal instincts in the robot take precedence over its programming, an example of the commonly encountered literary theme of paternalism in Asimov's work.

Runaround (1941) by Isaac Asimov features his recurring characters Powell and Donovan. It is written in October 1941 and first published in the March 1942 issue of *Astounding Science Fiction*. It appears in the collections *I, Robot* (1950), *The Complete Robot* (1982), and *Robot Visions* (1990). In common with many of Asimov's *Robot* stories, the application of the Three Laws of Robotics is the subject of this story as well, though in contrast to the majority (in which the lexical ambiguities of the Laws are employed to fashion a dilemma), the robot features in *Runaround (1941)* is actually following the Laws as they were intended. This short story is notable for featuring the first explicit appearance of the Three Laws of Robotics, which has hitherto only been implied in Asimov's robot stories. It is noted for its Artificial Intelligence researcher Marvin Minsky, who says, "after *Runaround(1941)* appeared in the March 1942 issue of

Astounding [now *Analog Science Fiction and Fact*], I never stopped thinking about how minds might work."

According to this story, in 2015, Powell, Donovan and Robot SPD-13 (also known as "Speedy") are sent to Mercury to restart operations at a mining station which was abandoned ten years before. They discover that the photo-cell banks that provide life support to the base are short on selenium- a chemical element and will soon fail. The nearest selenium pool is seventeen miles away, and since Speedy can withstand Mercury's high temperatures, Donovan sends him to get it. Powell and Donovan become worried when they realize that Speedy has not returned even after five hours. They use a more primitive robot to find Speedy and try to analyze what happened to it.

When they eventually find Speedy, they discover he is running in a huge circle around a selenium pool. Further, they notice that "Speedy's gait includes a peculiar rolling stagger and a noticeable side-to-side lurch". When Speedy is asked to return with the selenium, he begins talking oddly ("Hot dog, let's play games. You catch me and I catch you; no love can cut our knife in two" and quoting Gilbert and Sullivan). Speedy continues to show symptoms that, if he were human, would be interpreted as drunkenness.

Powell eventually realizes that the selenium source contains unforeseen danger to the robot. Under normal circumstances, Speedy would observe the Second Law ("a robot must obey orders"), but, because Speedy is so expensive to manufacture and "not a thing to be lightly destroyed", the Third Law ("a robot must protect its own existence") has been strengthened "so that his allergy to danger is unusually high". As the order to retrieve the selenium was casually worded with no particular emphasis, Speedy cannot

decide whether to obey it (Second Law) or protect himself from danger (the strengthened Third Law). He then oscillates between positions: farther from the selenium, in which the order "outweighs" the need for self preservation, and nearer the selenium, in which the compulsion of the third law is bigger and pushes him back. The conflicting Laws cause what is basically a feedback loop which confuses him to the point that he starts acting inebriated.

Attempts to order Speedy to return (Second Law) fail, as the conflicted positronic brain cannot accept new orders. Attempts to force Speedy to the base with oxalic acid, that can destroy it (third law) fails, it merely causes Speedy to change routes until he finds a new avoid-danger/follow-order equilibrium. Of course, the only thing that trumps both the Second and Third Laws is the First Law of Robotics ("a robot may not...allow a human being to come to harm"). Therefore, Powell decides to risk his life by going out in the heat, hoping that the First Law will force Speedy to overcome his cognitive dissonance and save his life. The plan eventually works, and the team is able to repair the photo-cell banks.

Asimov puts the three laws of Robotics into effect in his short story 'Runaround.' In the novel, humans need to obtain Selenium from a dangerous area so they send out a robot named Speedy to do the job for them. When he doesn't return after 5 hours, they found him in a state of conflicting directives that essentially paralyze him. The order to get the Selenium is driving Speedy towards the mine but the element is affecting his workings so he feels the need for self-preservation. Speedy is conflicted with Laws 2 and 3 working at the same time. His owner decides to put himself in harm's way so that

Speedy will then break from the stalemate caused by the Laws and save him thereby following Law 1.

Catch that Rabbit(1944) is a Science Fiction short story by Isaac Asimov that was first published in the February 1944 issue of "*Astounding Science Fiction*" (1930) and reprinted in the collections *I, Robot* (1950) and *The Complete Robot* (1982). The recurring team of Powell and Donovan are in charge of field tests on an asteroid mining station with a robot, DV-5 (Dave). But the robot stops producing ore, and cannot explain why. The robot is a new model with six subsidiary robots under its control (they are described as fingers) via positronic fields, a means of transmission not yet fully understood by roboticists. When they secretly observe the robot, it starts performing strange marches and dances with its subsidiaries whenever something unexpected happens. It is up to the two field testers to figure out why Dave is acting the way he is. This observation-dependent behavior alteration, hindering the resolution of the robots' behavioral bug, makes it an early example of a Heisenbug (software problem). The reason is that the main robot had too many subsidiary robots under his control, and whenever there is a serious need of decisiveness, his brain overloads, so whenever there is a dangerous decision to be made, the pressure increases, and he breaks down. The other robots do not know why they are dancing and when interrogated one mentioned that they received an order but before they could get it the order was replaced by an order to dance. Powell and Donovan spend days watching them on the telescreen, then follow them to find out what the original order was till they realize it doesn't matter when they are trapped in a cave-in when trying to stimulate the dancing from the robots.

Why did the robots stop dancing when the humans were watching them? When the humans are around, the pressure is lifted somewhat, because the human's presence helps the robot's mind to make decisions. They then destroy one of the subsidiary robots, allowing Dave to no longer be confused, and as he can now hear them, the First Law of Robotics takes over ("Through action or inaction, a robot cannot allow a human to come to harm") and he rescues them from danger.

Here, Asimov anthropomorphizes by having a robot twiddle its thumbs when it finds itself overwhelmed by its job, which is to say that one of the characters draws that analogy; how seriously Asimov meant it is unclear. In many cases, Robopsychology, personified by Susan Calvin - runs parallel to human psychology. For instance, at this point in *I, Robot*,(1950) the reader has already seen Hysteria and Religious Mania.

Liar! (1941) is a Science Fiction short story by Asimov. It first appeared in the May 1941 issue *of Astounding Science Fiction* (1930) and was reprinted in the collections *I, Robot* (1950) and *The Complete Robot* (1982). It is Asimov's third published positronic robot story. Although the word "robot" is introduced to the public by Czech writer Karel Čapek in his 1920 play R.U.R. (Rossum's Universal Robots), Asimov's story *Liar!* contains the first recorded use of the word "robotics" according to the Oxford English Dictionary. In 1969 "Liar" was adapted into an episode of the British television series Out of the Unknown, although only a few short clips of this episode are known to exist. The events of this short story are also mentioned in the story The Robots of Dawn written by the same author.

Through a fault in manufacturing, a robot, RB-34 (a.k.a. Herbie), is created that possesses telepathic abilities. While the Roboticists at U.S. Robots and Mechanical Men

investigate how this occurred, the robot tells them what other people are thinking. But the First Law still applies to this robot, and so it deliberately lies when necessary to avoid hurting their feelings and to make people happy, especially in terms of romance.

However, by lying, it is hurting them anyway. When it is confronted with this fact by Susan Calvin (to whom it told a lie that was particularly painful to her when it was shown to be false), the robot experiences an irresolvable logical conflict and becomes catatonic. In the short story *Liar*! (1941) a randomly telepathic robot is faced with a paradox between preventing humans from coming to harm and telling them the truth. Robots are supposed to protect humans from harm either through direct or indirect action and this law extends, logically, to the emotional harm of hurt feelings. In order to save the feelings of its human friends, the telepathic robot Herbie begins telling comforting lies like, "you'll get that job promotion!" and "that person *does* love you!" The mirror of human desires, wrapped up in one's own outward inventions, is rendered painfully clear in this story, a truly excellent example of Asimov's profound and insightful style.

Asimov's short story *Satisfaction Guaranteed* (1951) was originally published in the April 1951 issue of "*Amazing Stories*"(1926) and included in the collections *Earth Is Room Enough (1957), The Rest of the Robots (1964), and The Complete Robot (1982).* Robot TN-3 (also known as Tony) is designed as a humanoid household robot, an attempt by US Robots to get robots accepted in the home. He is placed with Claire Belmont, whose husband works for the company, as an experiment, but she is reluctant to accept him. Tony realizes that Claire has a very low self-esteem, and tries to help her by redecorating her house and giving her a make-over. Finally, he pretends to be her lover,

and deliberately lets the neighbours see him kissing Claire, thus increasing her self-esteem. In the end, though, Claire falls in love with Tony, and becomes depressed when he is taken back to the lab. The TN-3 robot models are rebuilt, since the US Robots think that they should not produce a model that a woman will fall in love with.

Lenny (1958) is another short story by Isaac Asimov, originally published in the January 1958 issue of "Infinity Science Fiction",(1955) and included in the collections *The Rest of the Robots* (1964), *The Complete Robot* (1982), and *Robot Visions* (1990). In this, the U.S. Robots are planning the production of the LNE series of robots, which are designed for boron mining. Boron is a low-abundance element in both the solar system and the Earth's crust in the asteroid belt. After a technician neglects to lock a terminal, a factory tourist accidentally reprograms the prototype LNE, wiping clean the structure of the robot's brain, and rendering it a baby in all effects.

Rob psychologist Susan Calvin experiments with it, in the process naming it "Lenny" (and developing maternal feelings for it), and after a month, has been able to teach it a few simple words and actions. She gets emotionally attached to Lenny and realizes that robots can be built that are able to learn, instead of being built for a fixed and specific purpose. Complications arise when Lenny, unaware of its own force, breaks the arm of a computing technician, which is about to cause widespread "robots attacking humans" panic. However, Susan Calvin manages to exploit the sense of danger to add a new thrill of robotic investigation, just as it happens with space exploration or radiation physics.

*Little Lost Robot (*1947) by Isaac Asimov was first published in the March 1947 issue of "*Astounding Science Fiction*"(1930) and reprinted in the collections *I, Robot*

(1950), *The Complete Robot* (1982), *Robot Dreams* (1986), and *Robot Visions* (1990). *Little Lost Robot* (1947) was adapted by Leo Lehman for the 1962 Associated British Corporation anthology television series "Out of This World" (1987-1991), which also marks the first appearance of Susan Calvin, played by Maxine Audley, in TV and movies. It is the only episode of this series that survives in the archives today. Elements of "Little Lost Robot" appeared in the film *I Robot* (2004), an otherwise original story based on Asimov's Robot concepts and characters.

At Hyper Base, a military research station on an asteroid, scientists are working to develop the hyperspace drive - a theme that is explored and developed in several of Asimov's stories and mentioned in the Empire and Foundation books. One of the researchers, Gerald Black, loses his temper, swears at an NS-2 (Nestor) robot and tells the robot to get lost. Obeying the order literally, it hides itself. It is then up to US Robots' Chief Robopsychologist Dr. Susan Calvin, and Mathematical Director Peter Bogert, to find it. They even know exactly where it is: in a room with 62 other physically identical robots.

But this particular robot is different. As earlier models on the station had attempted to "rescue" humans from a type of radiation that humans could actually stay in for a while, but would destroy a robot almost immediately, it (and all other NS series robots produced for the station) has had its First Law of Robotics modified to "no robot may injure a human being"; the normal "or through inaction, allow a human being to come to harm" has been omitted. Therefore, it could stand by and allow a human to be hurt, as long as it plays no active part in it. In *Little Lost Robot,* the Frankenstein complex is again addressed. The robot must be found because people are still afraid of robots, and

if they learned that one had been built with a different First Law, there would be an outcry, even though the robot is still incapable of directly harming a human. However, Dr. Calvin adds further urgency by postulating a situation whereby the altered law *could* allow the robot to harm or even kill a person. The robot could drop a weight on a human below that it knew it could catch before it injured the potential victim. Upon releasing the weight however, its altered programming would allow it to simply let the weight drop, since it would have played no further active part in the resulting injury.

After interviewing every robot separately and going down several blind alleys, Dr. Calvin starts growing desperate feeling that the robot may be gaining a superiority complex that might allow it to directly hurt a human. Dr. Calvin finds a way to trick the robot into revealing itself. She puts herself in danger but not before ensuring the robots understand that if there is any radiation between herself and the robots, they would be unable to save her even if they tried.

Once the test is run, only the Nestor robot they are looking for makes a move to save her, because it detects harmless infrared rays rather than gamma rays. All of the other robots could not identify what type of radiation was being used because it wasn't part of their design, unlike the NS series. The robot, finding himself discovered, then explains that the only way to prove itself better than a human is by never being found, and it tries to attack Dr. Calvin so that she cannot reveal that she has found the robot. Black and Bogert apply gamma rays on the robot, destroying it before it can harm her.

The Bicentennial Man (1976) is a novelette in the *Robot* series by Isaac Asimov. It is awarded the **Hugo Award** (1953) and the **Nebula Award** (1965) for Best Science Fiction Novelette of 1976. According to the foreword in *Robot Visions (1990)*, Asimov

was approached to write a story titled "Bicentennial Man" for a Science Fiction collection, along with a number of other authors who would do the same, in honour of the bicentennial of the United States. However, the arrangement fell through, leaving Asimov's the only story actually completed for the project. The story has formed the basis of the novel *The Positronic Man* (1993), co-written with Robert Silverberg, and the 1999 film *Bicentennial Man*, starring Robin Williams.

The character named Andrew Martin requests an unknown operation from a robotic surgeon. However, the robot refuses, as the operation is harmful and violates the First Law of Robotics, which says a robot may never harm a human being. Andrew, however, changes its mind, telling it that he is not a human being. The story jumps to 200 years in the past, when NDR (his serial number forgotten) is brought to the home of Gerald Martin (referred to as Sir) as a robot butler. Little Miss (Sir's daughter) names him Andrew. Later, Little Miss asks Andrew to carve a pendant out of wood. She shows it to her father, who initially does not believe a robot could carve so skillfully. Sir has Andrew carve more things, and even read books on woodwork. Andrew uses, for the first time, the word "enjoy" to describe why he carves. Sir takes Andrew to U.S. Robotics and Mechanical Men, Inc. to ask what the source of his creativity is, but they have no good explanation.

Sir helps Andrew to sell his products, taking half the profits and putting the other half in a bank account in the name of Andrew Martin (though there is questionable legality to a robot owning a bank account). Andrew uses the money to pay for bodily upgrades, keeping himself in perfect shape, but never has his positronic brain altered. Sir

reveals that U.S. Robots has ended study on generalized pathways and creative robots, frightened by Andrew's unpredictability.

Little Miss, at this point, is married and has a child, Little Sir. Andrew, feeling Sir now has someone to replace his grown-up children, asks to purchase his own freedom with Little Miss's support. Sir is apprehensive, however, fearing that freeing Andrew legally would require bringing attention to Andrew's bank account, and might result in the loss of all Andrew's money. However, he agrees to attempt it. Though facing initial resistance Andrew wins his freedom. Sir refuses to let Andrew pay him. It isn't long afterwards that he falls ill, and dies after asking Andrew to stand by his deathbed.

Andrew begins to wear clothes, and Little Sir (who orders Andrew to call him George) is a lawyer. He insists on dressing like a human, even though most humans refuse to accept him. In a conversation with George, Andrew realizes he must also expand his vocabulary, and decides to go to the library. On his way, he gets lost, and stands in the middle of a field. Two humans begin to walk across the field towards him, and he asks them the way to the library. They instead harass him, and threaten to take him apart when George arrives and scares them off. As he takes Andrew to the library, Andrew explains that he wants to write a book on the history of robots. The incident with the two humans angers Little Miss, and she forces George to go to court for robot rights. George's son, Paul, helps out by fighting the legal battle as George convinces the public. Eventually, the public opinion is turned in favor of robots, and laws are passed banning robot-harming orders. Little Miss, after the court case is won, dies.

Andrew, with Paul's help, gets a meeting with the head of U.S. Robots. He requests that his body be replaced by an android, so that he may better resemble a human.

After Paul threatens legal action, U.S. Robots agrees to give Andrew an android body. However, U.S. Robots retaliate by creating central brains for their robots, so that no individual robot may become like Andrew. Meanwhile, Andrew, with his new body, decides to study Robobiology - the science of organic robots like himself. Andrew begins to design a system allowing androids to eat food like humans, solely for the purpose of becoming more like a person. After Paul's death, Andrew comes to U.S. Robots again, meeting with Alvin Magdescu, Director of Research. He offers U.S. Robots the opportunity to market his newly designed prostheses for human use, as well as his own. He successfully has the digestive system installed in his body, and plans to create an excretory system to match.

Meanwhile, his products are successfully marketed and he becomes a highly honored inventor. As he reaches 150 years of age, a dinner is held in his honor in which he is labeled the Sesquicentennial Robot. Andrew is not yet satisfied, however. Andrew decides that he wants to be a man. He obtains the backing of Feingold and Martin (the law firm of George and Paul) and seeks out Li-Hsing, a legislator and chairman of the Science and Technology committee, hoping that the World Legislature will declare him a human being. Li-Hsing advises him that it will be a long legal battle, but he says he is willing to fight for it. Feingold and Martin begins to slowly bring cases to court that generalize what it means to be human, hoping that despite his prosthetics Andrew can be regarded as essentially human. Most legislators, however, are still hesitant due to his immortality.

The first scene of the story is explained as Andrew seeks out a robotic surgeon to perform an ultimately fatal operation: altering his positronic brain so that it will decay

with time. He has the operation arranged so that he will live to be 200. When he goes before the World Legislature, he reveals his sacrifice, moving them to declare him a man. The World President signs the law on Andrew's two-hundredth birthday, declaring him a bicentennial man. As Andrew lies on his deathbed, he tries to hold onto the thought of his humanity, but as his consciousness fades his last thought is of Little Miss.

Chapter V

Conclusion

The ethics of Artificial Intelligence is one of the several core themes of Science Fiction in general. It explores the scenario of a civilization accidentally creating Artificial Intelligence through a rapid increase in computational power through neural network at a global scale. Beyond the initial conflict, the complexity of the relationship between the machines and their creators is another ongoing theme throughout this literary genre of fiction.

In the human society, there are groups which are at loggerheads with each other. There are groups that view another group of humans as fit for slavery or slaughter. And the society is always at risk, mainly posed by these dominant groups. To counteract such tendencies of these groups, modern societies have created laws and institutions, and endowed them with powers of enforcement, that act to prevent groups of citizens from assaulting one another. The efficiency of these institutions does not depend on all citizens having equal capacities. Modern, peaceful societies have large numbers of people with reduced physical or mental capacities. These societies also have many other people who may be exceptionally physically strong or healthy or intellectually talented in various ways. Adding people with technologically enhanced capacities to this already broad distribution of ability has always been a matter of botheration since it might as well improvise the modes of assault too.

A common worry is that inheritable genetic modifications or other human enhancement technologies would lead to two distinct and separate species and that these

hostilities would inevitably develop between them. The assumptions behind this prediction should be questioned. It is a common theme in fiction because of the opportunities for dramatic conflict, but that is not the same as social, political, and economic plausibility in the real world. It seems more likely that there would be a variety of differently modified or enhanced individuals, which would overlap with the range of those humans that are yet to be modified in the similar manner.

The scenario in which "the enhanced" or the "modified" forms of individuals try to attack the natural human beings makes for exciting Science Fiction. The extreme case of a war between human and machine-made individuals has been a favourite plot for Science Fiction. The subject Science and the genre Science Fiction, enhances both the moralistic teaching and the entertainment aspects within storytelling by addressing new concepts developed in technology and by providing further insights into human behaviour. As Science Fiction writers incorporate science into their narratives, they attempt a search for answers beyond any boundaries that limits the explanations concerning humans and human behaviour. Thus, Science Fiction writers have triggered a human fascination with questions that one may have concerning human existence; and that is how the elements of humanism get incorporated in these fictional characters.

Although the creation of artificial life is a theme currently existent in Science Fiction, the concept was first addressed by Mary Shelley in her classic novel, "*Frankenstein"(1818)*. Shelley's novel attempts to highlight both the glories and the flaws of humanity by placing a human man in the position of God and, thereby, having him become a Creator of Life. Yet, the novel also places emphasis on human

behaviour—such as anger and compassion—and questions pertaining to whether human behaviour is a learned trait or an innate quality.

The use of this idea in order to attempt to define humanity and human behaviour has continued in Science Fiction works like Isaac Asimov's "*I, Robot(1950)*" and Philip K. Dick's "*Do Androids Dream of Electric Sheep" (1968)*. Both of these novels are examples of how Science Fiction begins to project into further territories of human inquiry.

This research thesis is an earnest attempt to bring out the tenets and traits of humanism as they are available and discernible in the characters of Asimov in his Science Fiction. For practical purposes, this thesis confined itself to select short stories of Isaac Asimov that are categorized under Science Fiction. In this, the researcher has attempted to define and describe humanity in its various hues. In the light of this range of descriptions, the researcher has also tried to search for the answers to individual existence that are advanced by the creation of Artificial Intelligence and by humanity's response. Since Science Fiction, as a genre, addresses the limits of human experience by using the creation and development of Artificial Intelligence to define humanity, the researcher could justify her choice of the topic of this research.

The humanism that is displayed and highlighted by Asimov, through his Science Fiction, has at its core the idea that human qualities and behaviours may not only belong to humans if these qualities and behaviours are able to be lived and learned by other beings such as Artificial Intelligence robots. As a concept, humanism believes in the complete social implementation of reason and scientific method; and, in accordance with

the scientific method, believes in the unending questioning of basic assumptions and convictions, including its own ideas and perceptions. Humanism is not a new doctrine, but is a developing philosophy ever open to experimental testing, newly discovered facts, and more rigorous reasoning. Isaac Asimov, as a responsible writer with views of working out positive upheavals in the society, handles humanism in a meticulously well-wrought manner in his fiction.

Asimov has *worked* for science and innovations in his whole lifespan. Many of Asimov's works deal in the area of social Science Fiction. The effects of Technology and Science is an important theme in many of his short stories and novels and can be seen readily. Asimov also presents the problems of present day society to us by paralleling these problems in a future society.

And the characters of Asimov, though fictitious, look alive by virtue of the very fact that they are impregnated with human traits and qualities. And that speaks about the success of Asimov as a humanist.

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