CHAPTER I
INTRODUCTION

Looking at the progress of man, we realize there had been a long trek by our human generation. There have been upheavals unimaginable. There have been wars, victories and defeats. Nonetheless, society has gone on forward undeterred by these besetting changes. Vicissitudes are a natural phenomenon in the history of man, as natural as Nature itself.

Civilizations have come and vanished. We have come thus far along with these marches of the multitude. Everytime a civilization lost its momentum due to social incompatibility, a Seer came forward to diagnose the error and suggested anew a social principle to follow, perhaps for a few centuries or a couple of millennia. However, every time a civilization fell for want of a better ideal, it took along with it the human advancement until that time. If only the fund of knowledge acquired had been preserved for posterity we should perhaps be building better pyramids than be delving into anthropological intricacies. We remember the ancients, but, we seem to remember them where their proximity is within a traceable past while the history far back recedes into hazy, rootless, mythical memories. For that matter, myths themselves could be histories without perceptible chronological accountability, though now of anthropological value only.

If, and if only, such products of intelligence had been preserved in comprehensible symbols the present generation should be standing on top of the whole gamut of human advancement right from those sentient days. Alas, we are not. With the demise of every civilization went the human advancement it nurtured too.
With the collapse of each society went the knowledge and experience acquired by that society. It has become the predicament of every generation that it shall start new, phoenix like. This effort of Asimov in the Foundation Trilogy is an attempt to annul this unsavory reality by postulating a managing technique for society. One of the unique features of The Foundation Trilogy when compared to other empire stories written by Asimov's contemporaries soon after the Second World War is finding a familiar way for restoration of knowledge. I say familiar because Francis Bacon had done it nearly four centuries back, of course, without this objective in mind. His objective, nevertheless, was to make use of science for the benefit of mankind, a something the world learnt only during the Enlightenment period in the eighteenth century. Asimov's endeavour to restore knowledge is a justified objective. Knowledge is a token of human power. In the rationalistic view of knowledge, modern man believes "in progress through the cumulation of knowledge" (Bendix 9). Asimov is sure of this and wants this happen in his Foundation Trilogy. Soon after Bacon's exhortation there came into existence a school of writers known as Encyclopaedists. Modern science owes much of its advancements to this collection of knowledge in the form of encyclopaedias all over Europe.

Outside of this, social and political thinkers already felt the need for freedom from change but could not suggest how. Some have gone a little further and suggested ways to circumvent change. Social planners, utopists or otherwise, have always been high and dry helplessly with presumptive notions about society.
They could not convincingly define society, nor understand it. Mankind had not devised to this day a convincing method to study society. Lately, however, with the emergence of parasciences we seem to be able to perceive the movement of society. Study of society has now come of age. Isaac Asimov a man of the modern times, a European believing typically in the use of science to solve problems, suggests a novel method to overcome this problem. Again in the true science fictional tradition he is only employing a trend of thought prevailing or attempted at by some social thinkers and social experimenters. We find, therefore, in Asimov's attempt, a mixture of the living, factual thoughts and fictional projections. Asimov suggests making use of the tool called 'psychohistory', his own coinage, to study the course of history and infer a pattern hitherto considered impossible and suggest remedies on the principles of the erstwhile scientific social thinkers like Francis Bacon and take heart in implementing the remedies. In the Foundation Trilogy, Asimov is attempting to re-construct a whole galactic empire by employing psychohistory, construing it as a science.

Hard core Science Fiction proper owes its fictional galactic empire making experiment to Asimov. This was followed up by many other leading writers after him with less success. Cordwainer Smith, A.Bertram Chandler, Cyril Cornbluth, and Clifford D. Simok have all attempted galactic stories. But, "it was not until Isaac Asimov wrote the group of stories that were to be published as the Foundation trilogy that the shape of galactic Things to come was brought into the idea of sf writing" (Wolheim 36). Asimov's Trilogy is considered as the anchor point for modern science fiction writers. The stories that were
written before this belong to the old fantasies, and those after the Trilogy belong to the modern empire science fiction. The Foundation stories in Wolheim's opinion create the point of departure for the full cosmogony of science fiction future history. They help us form a future for many years to come. From The Foundation Trilogy a pattern of future history making is emerging. "[W]e can establish a pattern of premises accepted without acknowledgement" (Wolheim 42). Other writers after Asimov were forced to fall in line with Asimov. Since Asimov set the parameters appropriate for future science fiction history writers, Wolheim finds that we have only to deduce the possible future history, especially because all the writers seem to adopt the view Asimov had. "When all the many inventive minds of science fiction writers find themselves again and again into similar pattern, we must perforce say that this does seem to be what all our mental computers state as the shape of the future" (Wolheim 42). In the words of Mary Ellen Burns, the Trilogy is about:

two interstellar societies of the far future, the First Foundation and the Second Foundation, which are vying for control of history. Each society is centred on the Seldon Plan, a mathematical model which predicts the behaviour of groups of people over extended periods of time....

The First Foundationers are plucky, practical entrepreneurs, who follow the plan to advance from a community of small-time traders and merchants to a highly organized and technologized interplanetary empire... The Second Foundationers are priestlike
mind-controllers living in secrecy across the galaxy; unknown to the First Foundation, they guide and adjust the plan. (Burns, Mary Ellen, 281)

Mary Ellen Burns in her article also concurs with Wolheim, though with a reservation: "Though the denouement of the Foundation Trilogy may have shocked us, at least it made sense" (281). The shock is because of denial of free will in the Foundation Trilogy. Contrarily, James E Gunn thinks that Asimov was anti-deterministic in the early stories and adds: "As a matter of fact, Asimov has the best of both determinism and free will" (42). A relenting Asimov restores free will in the sequels to the Trilogy.

Wolheim classifies the development of the sf stories on galactic future history into eight kinds, each taking us one step higher on the rung of advancement of galactic empire story writing, ultimately resulting in confronting the creative process itself.

To summarise Wolheim, first were those daring expeditions to the moon and to other planets of the solar system. Man comes into contact with sentient aliens. Man sets up terrestrial bases on other planets. Interplanetary voyages result in interplanetary commerce, asteroid mining and space piracies.

Second phase shows us records of more distant flights to the stars. Flights to distant objects necessitates faster than light travel. This, incidentally, is an important aspect of scientific advancement for man to colonize space to come later in the development; long space travels requiring travel for years on
Consequently, descendants of space ship travellers begin to appear. Humans set up colonies on stars. They are so isolated that they hunger for contact with Mother Earth like the Foundation men in the later books of the Foundation Saga.

A third phase is seen in the establishment of the Galactic Empire. Empire-making resulting in inter-relational problems in commerce and mutual relations between colonies. Mutual relations result in the setting up of federations.

In the fourth stage federations lead to internal politics, intrigues and formation of dynasties.

A fifth stage is reached when the galactic empire falls resulting in splintered groups. New groups emerge from out of the splintered empire. Corruption, rebellion, scientific inability, loss of contact between the members of the federation characterise the groups.

In the sixth phase the empire is a disturbed and chaotic place. The health of the empire plummets into barbarism and savagery, primitivity and superstition. Cumulative result of such conditions is ruining of knowledge. Humanity becomes indigenous, consequent on losing its roots and origins.

In the seventh phase a permanent Galactic civilization rises. A regrouping of the old members of the civilization restores commercial relations. Knowledge grows to advanced technologic growth. Rise of intelligence leads to galactic harmony. Once again, exploration of other galaxies re-emerges.

In the eighth and final phase, the advanced technologic
growth tempts man to challenge God. Lasting peace leads to high
levels of knowledge to the very extent of creation and existence.
Man braves to find the secrets of the universe. Man brazens
himself to challenge the creative force of God himself.
Sometimes, man does merge with the Creative First Premise, to the
very end of the universe or begin a new time-space continuum.

Asimov partakes of these stages of growth which Donald
Wolheim in his book *Universe Makers* lists (Wolheim 42-44),
Without stopping with following the tradition, Asimov scores
over others as an architect and original innovator of the
technique of imaginative empire-making by resorting to past
to empies especially the Roman Empire.

*Science Fiction Encyclopaedia* states thus about the trend
setting Isaac Asimov's contribution to empire stories:
Asimov, however, was the writer who provided the
essential historical framework for such a concept. He
did so quite simply, by a relatively straight forward
analogy with past empires, even borrowing Edward
Gibbon's analytical historical perspective, used in *The
Decline and Fall of the Roman Empire* (1776-88), in
reverse as the predictive science of PSYCHOHISTORY.
(1979 ed.)

The pioneering method of Isaac Asimov is commended universally.
Further, *The New Encyclopaedia of Science Fiction* notes the
following about path breaking achievement of Asimov. "[T]he mix
in the Foundation Trilogy of open-ended problem solving, the
reaching for "finality" or closure ... set the tone ... for
rational, "hard" SF..." (1988 ed.). Asimov has avowedly relied on the findings in the study of Gibbon in his monumental book 'The Rise and Fall of the Roman Empire' and has propounded a technique to sustain a design of a galactic empire. He underscores the traditional trust of the past among thinkers, for, man's life is contiguous with the past running into the present for the sake of the future. T.S. Eliot's 'Burnt Norton' recalls this phenomenon:

Time present and time past
Are both perhaps present in time future
And time future contained in time past. (1-3)

Asimov was not any different from the French historian Fernand Braudel who reflected thus on the status of man in society and his predicament in the society:

So when I think of the individual, I am always inclined to see him imprisoned within a destiny in which he himself has little hand, fixed in a landscape in which the infinite perspectives of the long term stretch into the distance both behind him and before.

(Braudel qtd. in Bendix 19)

The individual is indivisible from his circumstance. The individual is in a fatalistic historical continuum. Jean Paul Sartre has also observed on this inevitability: "No man can take a walk without bringing home an influence on his eternity" (Sartre, Jean Paul qtd. in Hertzler 286). He is a helpless victim of a circumstance someone else has authored. Indeed, we create a circumstance for a future we would not participate. In
the actions of men there is fatality in so much as their actions are not entirely their own considering the fact that history is a continuum in relation to time. "Men make their own history, but they make it under given conditions and they become entangled thereby in a fate which is in part the result of other men having made their own history earlier" (Bendix 49). In so far as men are responsible for their own history the notion of fatalism or preordainment emanating from extraneous sources is untenable. So much so, Asimov's reconstructed Second Galactic Empire is a man-made empire, only that it is the concept of one man, Hari Seldon, who is our fictional equivalent of a metaphysical 'Seer'.

Inspired by Asimov, Robert Heinlein returned to galactic empire stories. Heinlein's creation of future history is by a gradual progression of events. But, Heinlein's technique fades in comparison to Asimov's. Poul Anderson, coming later, too was not convincing because of a lack of drive from himself to back his work up with sufficient scientific imaginative gusto. Further, Anderson does not contribute anything new, since, he feels over-shadowed by Asimov in the adoption of a historiographic technique, namely chronology. Asimov is adept at exploiting the method of chronology. The nine novellas in the Foundation Trilogy are preambled with an extract from a fictional Encyclopaedia Galactica along with the time of the event under narration, thus investing the narrative with the mechanics of credibility.

Asimov very well understood the power of chronology. Chronology lends credence to history. History sans chronology is mere 'his story'. Far back, the period before Thucydidēs, the
first chronologist, appears to us as mere conjecture. We who read in these far later times Homer's *Iliad* and *Odyssey* would not vest the Homeric stories with any historical credibility. We would rather grant the classics of Homer a mighty attempt at cosmic-human adventure. We regard and remember Homer's Classics for their mythologic, grandiose design and devolution. We would willingly suspend our disbelief and allow Homer his fancy. Greek history for that matter is mere legend for want of chronology. Whereas Roman history comes alive with chronologic details. It is even claimed that during the initial phases of the Christian religion, paganistic creeds, Judaism and Islam were strong contenders to the status of being accepted as credible religions with their of miraculous anecdotes, claims and counter claims. Slowly the Christian religion is said to have gained ground by convincingly presenting a geneology tracing back to Adam in a chronologic manner. A chronologic geneology helped place Christ authentically as a divine descendant. With this, it is supposed that Christianity had come to convey a strong sense of authenticity to the followers of the religion. Chronology has thus the potential to vest, what would otherwise be myth, with veritability and reinforce conjecture with certainty. Asimov perhaps has understood the power of chronology by looking backward into the evolution of history. Yet, Asimov is accused of not being able to understand the undercurrents of history by some critics. Some others would applaud the immense knowledge the young Asimov had of history and the forces behind history, which is incidentally my purpose here. Asimov admitted to have read Gibbon not once but twice. The young chemistry researcher had read Toynbee. Returning to the theme of chronology, man himself
had advanced only and only because of a verifiable past documented chronologically with historical minutiae. In the absence of verifiability man turns a deaf ear to the musings of historians. Even if a historian were to be objective, we would not accord him the credit of being beyond the subjective.

Asimov, perhaps to arrest the reader's attention and win his credibility, preambles his stories with an epigraph from a fictional Encyclopaedia Galactica to convey in brief the process of history that far. The technique itself is remarkably commendable for reasons of reassurance from a chronological point of view. This is also a deft technique to unite the story which would otherwise be a discontinuous one. The reader is not only hoodwinked into believing that the story itself is a dilatation of the gist provided in the preamble, supposedly from the historical encyclopaedia, but is forced to believe in the author's account of the historical political evolution that follows. The story is told in retrospect and an encyclopaedia endorses the events. This in itself is a technique to demand credibility. We the readers are only turning the pages of historical record, a record of achievement. As for the book there is no mystery. The mystery is in the mind of the reader. Only at the end do we come into the present to hear the reassuring words of the Second Foundationers that the Second Galactic Empire is well on the course of being realized successfully. The preamble extracts lend an aura of progress in history until the successful accomplishment of the Seldon Plan. In 'The Foundations of Science Fiction, James E Gunn says that the epigraphs from the galactic encyclopaedia "also offers more isolated insights into history, politics, and human behaviour"
Anyone given to imagining that chronology reinforces conjectural details would be won over by Asimov.

By the end of the Second Book one gets an impression that a 400 year galactic history has been laid bare for edification (though Asimov abandoned writing sequels on the ground of not being able to keep the readers updated about earlier events) and the empire making as desired had been achieved, consummating in the Second Galactic Empire with an emphasis on abbreviated revival time schedule with the use of the techniques of psychohistory, and a reappraisal of the tenet of Science Ficton to create hypothetical experiments, in this instance, the science of social engineering. The note on which the Foundation Trilogy ends is that of relief and a restoration of faith in scientific approach to even social problems.

The leitmotif of Isaac Asimov in his Foundation stories is to show that social sciences are not anathema to scientific enquiry. Asimov is absolutely in tune with many other social thinkers and designers as the following pages show. The Trilogy does close on a note of determinism. It has to be if we go by Bendix's statement quoted earlier that man creates his own history.

The succeeding chapters show that a search was already on for a fairly long time to find an answer to social changes with the application of scientific techniques and scientific analysis. It is further shown that the former utopians dreamed of their worlds of nowhere without adopting a scientific attitude to handle social issues. The time Isaac Asimov wrote his stories was rife with sociological, psychological and historical analyses.
to sufficiently support a technique of sociological, societal evolution. It continues to engage the attention of social planners and a whole new school of thinkers called the psychohistorians. It was recognized by many thinkers that social problems also are amenable to scientific analysis, as this exhortation shows: "[P]roblems of change should be approached like any other subject of investigation" (Bendix 3). If technology is reversing the principles behind natural phenomena then societal progress if understood could also be masterminded. This is a theoretic possibility attempted at academic levels of achievement. Bendix affirms that: "Social scientists have always been interested in social change, and this interest has increased since World War II" (Bendix 6). The propensity of The Second World War was so destructive that many science fiction writers took to writing empire stories and future history stories.

The Trilogy was written between 1951 and 1953. Asimov, was upset by the ravages of the War and wanted a way out of the destruction that wars caused especially to cumulation of knowledge. However, it has also been long learnt that social sciences, and social phenomena are indeterminate by nature and that scientific principles applied in the physical world per se cannot apply to social sciences. The indeterminacy factor in social sciences has been a stumbling block. A way had to be found to make social sciences equal to the status of the physical sciences that are certain.

A rationalistic approach had to be applied to meet the problem. However, social scientists are ready with a method of analysis to get at the workings of social sciences.
The process of gaining empirical control over sources of variation is clarified by referring to the distinction between causal conditions treated as parameters and causal conditions treated as operative variables.... By converting variables into parameters most of the potentially operative conditions are made not to vary, so that the influence of one or a few conditions may be isolated and analysed.... All methods of scientific inquiry, and those striving to approximate it rest on the systematic manipulation and control of parameters and variables. (Smelster, Neil qtd. in Bendix 7)

In Smelster's view it becomes possible to devise a means or method to scientifically approach any occurrence, whether scientific or social by suitably changing the relationship between the variables and parameters. Far back, Bacon who advised getting at the workings of Nature to conquer Nature said that "human knowledge and human power meet in one; for where the cause is not known, the effect cannot be produced. Nature to be commanded must be obeyed" (qtd. in Bendix 7). Bacon thus began long ago to goad his generation with this insight. In the rationalist view of things social changes fall within the purview of science. These parameters though are restrictions on the operational efficiency of the technology of social sciences they do produce desirably foreseeable results to encourage modern man to adopt such techniques with discernible avail. In the Foundation Trilogy these parameters operate as the given to
enable artistic progress. Chapter V of this thesis lists these parameters which would normally be construed as variables, in the form of preconditions or assumptions for the application of the science of psychohistory. Incidentally, these are objects of attack with the critics of Asimov. But any work of art has to operate from a set of precincts and Asimov's Foundation Trilogy is no exception to it. It need not be the "premise of Marx and Engels" as Donald Wolheim (41) had accused and which Asimov himself had refused to admit.

These following pages are devoted to show that Asimov was not off at a tangent like the wild utopists of yore and that he had imbued in his technology for society certain of the theories and advances extant and tried during the time of writing the Trilogy and in the years later, to this day perhaps, and that granting certain artistic liberties, his postulates are credible and realizable to a closer degree though not in an absolute manner, because of the indeterminate nature of the parasciences and the other factors incumbent upon social changes like the chance element in social transformations. Further, there is seemingly a lack of appropriate evaluation methods to these new devices of social dissection. The shortcomings in these methods are, on the other hand, pointers to further needs in this branch of human advancement and an impetus to further examination into the cause of change. If needs are construed as prods then there should result a new revolution. To circumvent this problem, Asimov has removed the story to a time far in the future while in our world man has reached but a mile in the scientific advancement that forms the bedrock of the social evolution contemplated in his Trilogy.
Wolheim claims that these experiments are not vain experiments, their imaginative expeditions are not vain travels. "Science Fiction writers are not just universe makers, they are also universe savers" (Wolheim 48). Science fictional experiment is to be construed as a proxy to the realistic ones that cannot be conducted without considering the effects. Yet, sf writers suggest naive remedies to social and scientific problems, be it guided scientific progress or test tube babies. Again Wolheim would say: "Perhaps their vision ... is right. Perhaps in this century it is actually the world that is at stake or all humanity -- and only science and the defenders of science can save it" (Wolheim 48). Science fiction writers are neither vain nor are they escapists given to fantastic imaginations. They face the world head on.

My claim here is that Asimov is a hard science fiction writer making active use of the advances in scientific, para-scientific and historical domains, and that his suggestions are based on realistic estimates shorn of fantasies, and further, that he cannot be ignored so easily. His attempt is a formidable one and credible to a greater degree, and that his dream world is not a place of nowhere but a place of now here, since we ourselves employ these measures of Asimov to an extent to realize smaller ends in our day-to-day world, though not to establish a galactic empire which is still a far cry. However, Asimov is sure escaping -- "science-fictions are regarded as escapes" (Armytage 13) -- into science fictional world to spare himself the adverse reactions, were he to fancy himself a sociologist openly.

But, before actually delving into how Asimov wants to
establish his renewal colony, or go about social reconstruction, certain clarifications and reservations about the ways and means employed by Asimov have to be looked into. This is an explorative attempt indulged in for the purpose of clarifying that the world of today is ready to accept and try the Asimovian experiment. After all, it had always been the longing of social thinkers for ages. But, first, it must be examined if we had the means at our disposal, unlike the utopians of old who had had to do without these advancements.