CHAPTER V
FROM MEANS TO AN END

The Foundation Trilogy is not a mere narration of events. Primarily it is an epitome of parascientific precepts caught in the web of actualizing angst and then it is fiction. Examining this is the premise taken up for this chapter.

The first book of the Foundation Trilogy, namely Foundation opens when the first Galactic Empire, has seen 12000 years into its life. At this advanced stage, the science of psychohistory has grown into a perfect statistical science, and the author Hari Seldon is our only Seer predicting disaster for the empire in the whole of the Galactic Empire, whose leaders guffaw the pronouncements of Hari Seldon. Ironically, leaders of the Empire pride themselves on the immensity of the achievement of the Empire over the preceding millennia and ride the crest of a wave. Amidst this, Hari Seldon smells disaster for the Empire, as well as for the apparently healthy civilization, disaster for the accumulation of knowledge and the wealth of human intellectual labour. Hari Seldon prepares in all earnest a plan to revitalize the decaying Galactic Empire. In his opinion it is too late to stop the downfall. But the aftermath could be made less painful for the majority who would be exposed to the effects of the disintegrating empire. Hari Seldon could speed up the revival from an enormous 30 millennia for natural restoration of order to a single millennium of engineered restoration of order, through concerted effort. It may be mentioned here that Pythagoras held that once every 7,600,000 years all things completely returned to their own past state. Plato and Aristotle
held that development occurred in cycles, and Giovanni Battista Vico gave the circuit theory, that is, society develops in cycles.

An enlightened Hari Seldon perceives with his singular ability the coming danger to the Galactic Empire. He asserts that he could hear the death knell to the Galactic Empire since he had in his possession a knowledge of psychohistory. "Listen with the ears of psychohistory and you will hear the creaking" (F 33). With this knowledge Hari Seldon had been able to identify the forces that shaped history. It may be pertinent to recall here that the historicists, psychohistorians and psychologists had all the time been harping on acquiring this ability, Karl Marx being the one, especially, to make use of the finding to control history. In Seldon's opinion the Empire had been falling for some time, for some unperceived time. Its overreliance on other planets for supplies of its requirements was a pointer to the coming danger. In Trantor's very growth was ingrained the rudiments of disaster.

Hari Seldon the protagonist Seer propounds a revival schedule. It is an a posteriori deduction made from a study of past history, here, the 12000 year history of the Galactic Civilization, applied in an a priori manner. The suggestion comes in the year 12001, which is the first year of the Foundation Era, now that the Galactic era had ended. As was mentioned in Chapter II it is a charted course of future history. Seldon had evolved from his study of the past certain parameters and variables. He is now in a position to suit the parameters to a set of variables. Parameters and variables are
interchangeable factors, especially when it is a question of technology. Seldon has conjugated psychology and history, or rather evolved a psychology of history. The psychohistory as seen in Chapter IV is a modern science even though its origins could be traced to Plato. Its influences are profound and pronounced since Freud. The psychohistory that Hari Seldon claims to possess is much different from the psychohistory that followed the post Langerian edict period (i.e. 1958, The Next Assignment') discussed in the last chapter. It should be reckoned that this new science has just begun but with enormous force and the discoveries are already startling whether they pertain to pathobiographic or psychohistoric analysis of the lot of man in general. Psychohistory of this our century is a young science. There is much to come. This is opportunity enough to found a fictional plot on this problem. This problem is a fitting grist for the Asimov mill. Fittingly enough, the Foundation Trilogy is a science fiction story that has for its leit motif the application of psychohistory, in a perfected form. After all any science fiction is an extrapolational experiment. What is of interest in science fiction is the growth of a concept not of character as in mainstream novels.

The schedule for renewing the colony is based on certain assumptions, assumptions by Asimov as a writer of science fiction and the assumptions of the protagonist Hari Seldon, the sole architect of the Plan in the Foundation Trilogy.

1) Psychohistory is a kin of mathematics which deals with the reactions of human conglomerates to fixed social and economic stimuli.
2) Human behaviour is the effect of social and economic environment.

3) Human conglomerates must be sufficiently large to lend itself to statistical analysis.

4) Psychohistoric analysis pertains to only groups and not to single individuals. The results obtained by psychoanalysis cannot be relied upon where the number dealt with is less for arriving at approximations. Approximations are construed as near certainties.

5) These human conglomerates be unaware that they are being studied psychohistorically in order that they may react in a truly random manner.

6) Predictions are only approximations, since, the science is based on probabilities and not on certainties.

7) There is a high probability of these societies coming true, since these are mathematical and not moral predictions.

8) There is no place for irrationality or sentimentalism in
problem solving.

The first book in the Foundation Trilogy is named *Foundation*. Literally, it is the foundation for the Second Galactic Empire that is to metamorphose, at the end of the third book of the Trilogy, which in turn would clarify some of the incomprehensibles in the Trilogy. It opens with a bang. The very First chapter is at once a vindication and a fallacy. It is a vindication of the positive aspects of a healthy civilization. At the same time, the fallacy of the less gifted, living generation, that all would be well with their life and society for ever. This last foible is also the warrant for the emergence of a gifted Seer, and the vindication of the hypothesis that the living society cannot experience, much less detect, the coming danger.

Seldon has reduced his science of psychohistory into a mathematical principle, namely: "[t]he synthesis of the calculus of n-variables and of n-dimensional geometry is the basis of what Seldon once called 'my little algebra of humanity'" (SF 107). This is not only the achievement of the protagonist of the Trilogy but it is also the science fictional proposition and experiment of Isaac Asimov. Asimov is suggesting that psychohistory, as yet an empirical science, could be transformed into an exact science if it is conjugated with mathematics. Mathematics as we know is an exact science. Always, a dearth of proper measurement or evaluation techniques was felt to prevail in the areas of parasciences in general. A need was felt to convert psychohistory into a science. It is this that makes parasciences what they are, -- inexact sciences, or lesser
sciences, compared to physical sciences. The physical sciences are more probable than mental sciences. The last chapter dealt with evaluation methods that could be employed to convert psychohistory into a science. Paradoxically in the Foundation Trilogy, the physical scientists occupy a lesser position than the psychologists. The time had come to reckon with this changed situation. Psychohistory, as construed in the Foundation Trilogy, on the other hand, is an exact science, and the psychologists are entrusted the duty of supervising its results.

In the domain of psychohistory, as we encounter it today, the human variables being numerous, it would be baffling to embark on studying the variables. Yet it was seen that the mathematical concept of organized and disorganized complexities have helped in getting at group concepts in the recent years and they have helped reduce the number of variables. In addition, applying the concept of symbolic logic, it has come to be conclusively learnt that agglomerations of variables could be achieved.

Seldon, therefore, manoeuvred to establish a Foundation on a remote planet called Terminus, to revive the dead Empire. To this extent Hari Seldon is with the utopians who removed themselves from their familiar surroundings. But, Seldon's purpose in removing himself is to insulate the renewal colony from the decadence plaguing the rest of the Galactic Empire, and to plan a world take over from hiding. Verisof, the leader of Anacreon, a neighbour kingdom of Terminus would refer to Seldon as Prophet Hari Seldon. In keeping with the tradition of utopians, especially the Apocalyptists, but more in tune with the
modern utopians, Hari Seldon would usher in an earthly paradise: "the Prophet Hari Seldon ... appointed the Foundation to carry on his commandments that there might some day be a return to the Earthly Paradise: and how anyone who disobeys his commandments will be destroyed for eternity" (F 109). Seldon foresee's only two variables, one is himself and his group, and the other the intermittent detractors, the enemies to the formation of the Second Galactic Empire. Morally put, enemies to the restoration of order, peace and progress of the human generation. Seldon as leader stands for order and stability as his new student's: "To Gaal, he was the only spot of stability remaining in the world" (F 28). Seldon, as the author of this new renewal colony, would strive to restore order in the now chaotic First Galactic Empire.

Seldon has studied history of the Galactic Empire and has deduced the effects of a civilization collapse.

The Empire will vanish and all its good with it. Its accumulated knowledge will decay and the order it has imposed will vanish. Interstellar wars will be endless; interstellar trade will decay; population will decline.... The dark ages to come will endure not twelve, but thirty thousand years. A Second Empire will rise, but between it and our civilization will be one thousand generations of suffering humanity. We must fight that. (F 33-34)

We are told that civilization imposes an order on society. This order is also the order that a Seer is particularly conscious of
and imbued with, and is at pains to safeguard. Hari Seldon wants order restored to society. He is anxious about the state of society. In the previous chapter it was seen that this anxiety is a function of human ego which the Seer/leader revitalizes to a reality.

Hari Seldon's method is to start with a goal, the avowed goal of establishing the Second Galactic Empire by effecting a political and economic revival, and later, reinfuse the knowledge collected in the Encyclopaedias prepared by the encyclopaedists of the First Foundation and install the psychologists as the managers of society instead of the physicists, who are inefficient as social planners. Hari Seldon's approach is much like the systems strategies discussed in the previous chapter that are recommended in the recent years for planning the future. It was seen earlier that the systems approach should start with a goal, hence, as a concept, and work downwards to the fundamental arrangements of a society. Social engineering takes a three tier approach to plan a future society as discussed by Laszlo (111). The concept would be Phase three, and the implementation would descend into Phase Two and Phase one. Phase two would be the institutions, which in turn would be made up of individuals representing Phase one. All the plans would work towards realizing the ultimate goal. The systems approach that Seldon adopts is akin to the catastrophic architectonic discussed earlier in Chapter 4. The Seldon Plan is defined thus:

Periodically, it faced a crisis in which the variables of human intercourse, of the social and economic currents of the time constricted about it. Its freedom
to move lay along only one certain line and when it moved in that direction, a new horizon of development opened before it. (SF 10)

This strategy is referred to by Hardin, the Mayor of Terminus: "The future isn't nebulous. It's been calculated by Seldon and charted. Each successive crisis in our history is mapped and each depends in a measure on the successful conclusion of the ones previous" (F 100). This type of strategy depends on achieving short time goals. Each catastrophe marks the end of each short time goal. A sequence of such definite, predetermined goals leads to realization of the ultimate goal. Each catastrophe takes a step towards the goal, but it can only take a short step nevertheless. Each catastrophe is integral with the subsequent one but only in that sequence. In the Foundation Trilogy the catastrophes are referred to as Seldon Crisis. The freedom of action that the Foundationers can wield would "become circumscribed to the point where only one course of action was possible" (F 100). Inevitability is forced on the Foundationers. By the end of the first book of the Foundation Trilogy, three such crises are encountered.

The first goal is to isolate the First Foundation from the rest of the Galaxy. The second is to consolidate the four break away kingdoms that were once the provinces of the Galactic Empire. The third shows the deviation that the Foundation has taken to, because of complacency which is an unhealthy negative tendency in societies. The fourth and the fifth crises highlight the weaknesses in the science of psychohistory. The last two crises are dramatised very poignantly in the Trilogy. In the
realization of the catastrophes, Asimov insists on the observance of timing and environment since moment and environmental conditions are instrumental to change.

Gaal Dornick, the mathematician, about to join the Seldon fold, describes the grand development of Trantor, the centre of administrative activity in the galaxy, as glorious. It is a euphemistic description since the facade signifies 'decay' for Hari Seldon, the Seer. Taking Trantor at face value, the reader, as well as Gaal Dornick, is amazed at the scientific development, the result of 12,000 years of peaceful dedicated labour of the quintillion population of the First Galactic Empire. Apparently, everything is in order. Trantor is very specialized. The scientific sophistication is a symbol of the glorious march of the previous generations, their solidity of aim and purpose.

Gaal Dornick is the son of a Provincial farmer, who worked in a hydroponic farm. Hydroponic cultivation is a method of cultivation that does not involve the firm ground that conventional agriculture requires, or the traditional means, the humus etc. Old world, less efficient cultivation has been replaced by the modern high yielding hydroponic cultivation, to feed the enormous population. Conventional cultivation is a randomised cultivation in its content, but hydroponics is specific since the plants are fed with its absolute nutrients, avoiding wastage of all kinds. This is sign of perfection of the science of cultivation, perfection of the knowledge of plant requirements, a pointer to the general tendency to control change.
The condition of Trantor as the centre of the Galactic Empire is a measure of human effort towards control and certainty. Trantor itself is an underground habitation, a steel city. Man had mastered his geographical environment, an indication that man had begun to control his life surroundings, a fond quest of the modern man, not leaving changes to chances in nature. This is an ability that has encouraged man further. First nature, and then man. This Trantorian situation is further emphasized by the observation that, "[t]he science-bred notion of the control of nature has reinforced the Enlightenment dram of remolding society..." (Barzun 78). An underground habitation eliminated the dangers of the season dependent open environment. Natives of Trantor rarely, if ever, go to experience the open environment for the sheer fun of it. It is of academic interest only. When Gall Dornick-like provincials visit Trantor, a visit to the natural environment is a thing of excitement, requiring a mile long climb in a chute at express speed to an observation tower, neither a delectable nor a useful indulgence for the natives. The elevator that transports the visitors to open spaces is of the modern sort, that runs by "gravitic repulsion". Trantor is a controlled city, with a controlled geography as well.

The very travel that Gaal Dornick took to reach Trantor is a mark of hyper-advancement. He has come through hyperspace. Hyperspace is a space devoid of time. As yet it is an aspect of hypothesis in the scientific world. Space itself is an enigma. Not to say of hyperspace. Hyperspace refers to the belief that space consisted of certain narrow passages wherein the gravitic influences of galactic bodies are canceled out thus creating
spaceless timeless conduits. If these conduits were used for travel, one could achieve phenomenal speeds, thus defeating the time-space limitation that besets our aspirations of faster than light travel in space to reach distant galaxies, a concept eclipsed by the Einsteinian postulate on terrestrial speed limits.

Even as Gaal Dornick is exploring his new habitation, he is taken prisoner by the administrators for interrogation, which we learn was manoeuvred by Hari Seldon himself, so that, his own trial could follow soon after the arrest of Gaal Dornick. At the inquisition Hari Seldon is able to manipulate his argument in such a manner that his opponents could not but decide it in his favour, namely, banishment to a remote planet, called Terminus. The trial is expository in its significance, like the First Act of a Shakespearean drama, since the plot of the trilogy is laid here. This will expose the qualitative aspects of promoters of order and the detractors, between the Seer/leader and the ordinary men of the moment, just as defined by the investigations of psychohistory.

The trial serves many purposes. It is a curtain raiser on social regeneration through technology. It lays bare the investigation possible behind social regeneration. It is the beginning of the technology of social engineering, a sample of behaviour modification. Hari Seldon achieves his goal of obtaining a planet to found his first Foundation by skillfully manipulating the events. Seldon is conscious of this as he confides in his latest recruit Gaal Dornick. "[I]n a plan like
ours, the actions of others are bent to our needs..." (F 39). Later on in the novel we find Salvor Hardin, the mayor of the First Foundation acknowledging this accomplishment of Hari Seldon. "It is well known that Seldon manoeuvred the Commissioners on Trantor into ordering the Foundation established on Terminus" (F 74). When Seldon put the Foundation on Terminus it was not a chance happening. For, "There are no trick methods of escaping from a dilemma that he can see and we can't" (F 74). Seldon is orchestrating the events, as a systems strategist would in the modern context. When Seldon wanted to put his First Foundation on Terminus, he had studied the powers that be for two years before his historic (but fatal to the Empire) trial, as Gaal Dornick has him confess: "Have you been preparing to leave for two years" (F 40). Seldon had even assumed he would be banished into an exile on Terminus and had started working on it.

From the time of the banishment to Terminus, the Seldon Plan takes hold of the processes, and the count down towards a Second Galactic Empire starts. The selfless Seer, Hari Seldon, is no longer necessary. His concept takes precedence over the person. Individuals are immaterial in any plan for society, as these words of Hari Seldon testify: "as for me ... I am finished" (F 41). Seldon is aware of his role and its limitations, and there is the humble recognition of it. Rest of the Plan would devolve by itself once the first steps are taken in that direction, a course setting direction. Hegel was the historicist who first propounded the principle of evolution in history, that history is the inevitable result of the actions of generations. Here is the course to be taken by the Seldon Plan, and then
everything would be inevitable. As has been stated by me in Chapter 2, the utopian thinker had only to introduce his pathbreaking concept into the course of events in history to bring about a change in history. In Seldon's words it is a "slight deviation of history". The successors of Seldon will be able to apply the final touch in the scheme and instigate a revolt in Anacreon at the right time and in the right manner. Thereafter, events may roll without much intervention. There is in all this, a choice of the moment. Circumstance plays a catalytic role in the making of decisions. "The trial was not allowed to begin until the time and circumstances were right for the ending of our own choosing" (F 40) says Hari Seldon in a confessional manner to Gaal Dornick.

Two years later, preparation and publication of the Encyclopedia Galactica had begun and fifty years later, the encyclopaedia had been completed. Further additions would appear quinquennially. The first phase of The Seldon Plan would create a religion of science. For, distancing from rudiments of science, would mythologise science. The alien kingdoms have fallen far short of preserving the discipline of scientific enquiry. There are very many examples of things having fallen into disuse. In the coming years, the traders would be considered contemptuously as dealers in trinkets, merely because these are sophisticated for the untrained intellects of the territorially preoccupied warlords. Preparation of the Encyclopedia, the thing that is to serve as the storehouse of knowledge, to be reinfused later when the Second Galactic Empire evolves, is the primary task. It is
primary because as Seldon explains in *Foundation*, knowledge would scatter away in such a manner that it would be difficult to collect them for any useful purpose. Already, learned men have become rare finds, one Gaal Dornick is one. Later, the Mule would find Ebling Mis to belong to this rare category. As soon as the first task is completed, stimulus diffusion would be taken to by the institution of Independent Traders. These Independent Traders are also Foundationers meant for a different purpose. We are given to understand that there could be traders like Hober Mallow, a symbolic trader, who would steer the Plan further. These two institutions, the encyclopaedists and the independent traders, help in achieving a logical progress, much like the realistic progress made by the Foundation by conquering the neighbouring planets and establishing its control. These two institutions help in creating an environment to ingest their ideas, and create an intellectual ferment. They also act as spies for the First Foundation. But by 300 years, things change. This is to demonstrate a purpose which is discussed later.

It takes fifty years to establish themselves and get the Encyclopaedia Foundation Number One into a smoothly working unit. This much time is needed to get the collective effort going. As said earlier, the concept might have emanated from Hari Seldon, the Seer, but its effects can be realized only through collective action. "Work had to be coordinated. Effort had to be organized. Threads had to be woven into a pattern" (F 45). Otherwise the renewal plan cannot take off.
A leader has to necessarily work with like minded individuals who would constitute the led. Therefore, work towards reconstruction starts at the periphery. Ducem Barr, comparing the Empire to a human being, tells Bells Rioso, who thinks that the Empire is stronger,

Circulation ceases first at the outer edges. It will take a while yet for the decay to reach the heart. That is, the apparent, obvious-to-all decay, as distinct from the inner decay that is an old story of some fifteen centuries. (FE 14)

We see the application of psychohistory to solve problems of civilizational nature. Towards establishing this, and in keeping with the tradition of utopists, Asimov takes us to a remote future in human history, to establish logically and reasonably that things would have advanced further by then, going by present progress, that is. The Foundation Trilogy, it must be remembered, is not an extrapolation.

On Terminus, an extreme planet in the Galaxy, Seldon wanted to establish a "scientific refuge" (F 40), and also a companion Second Foundation at the enigmatic "Star's end" of the Galaxy, which in effect would be the seed of renascence, the guardians of the Seldon Plan and the founders of the Second Galactic Empire.

Typical of all utopias, and the avowed opinions of social thinkers quoted in earlier chapter II, Seldon's "group" would form the renewal colony. This "group" would constitute the
equivalent of 'savants' or 'elites' described earlier. We have seen that Plato, Vico, Augustine and others favoured entrusting the work of revival in the hands of savants, to the utter distrust of individuals. Individuals as successful agents of change is highly suspect, in theory and practice at least after the eighteenth century. This group would be made up of like minded individuals. Any one not sharing the 'Galactic Spirit' would find no place in the efforts to bring about a Second Galactic Empire. The commander of the Anacreonean fleet, Weinis, would not succeed in invading the Foundation since he did not share the 'Galactic Spirit'. Though like minded individuals are rare to find in these disturbed times, there are sure many who shared the spirit of order, and longed for the restoration of order sooner than later. After all, when a civilization collapses, vestiges of order lingered longer at the centre and vanished sooner at the periphery. Therefore, order that has splintered is to be restored at the periphery first, than at the centre. With this view in mind, Seldon has chosen to locate his renewal colony on Terminus, a planet in the midst of disturbed peripheral kingdoms, that have begun to break away just because they are far from the sea of the centre that has gone powerless to exert its pressure on the periphery. A weak centre would just survive since it has lost the inertia to sustain itself and keep its influence on other planets or regions, until it is reorganized and marshalled together. Anacreon, an extreme province successfully breaks away from the Galaxy. There is unrest in the periphery just exactly as Seldon had divined and predicted during his inquisition.
The opening of the first book of the Trilogy, *Foundation*, deals with a search for like minded individuals, the harbingers of the spirit of the new empire, referred generally as people sharing the 'Galactic Spirit'. Gaal Dornick is one such to get enlisted into the Seldon group as a mathematician. Later in the third book of the Trilogy, *Second Foundation*, another apprentice would seek entry into the Second Foundation, as a psychologist and he would be similarly oriented to the functioning of the Plan by the First Speaker, the protector of the Seldon Plan.

As expected, the powers at the helm thwart Seldon's efforts. With them any attempt to disturb the trend of events would undermine their survival. These are small timers, making much of the opportunity, without the desire of restoring order and continuity. Hari Seldon knew they would be there.

Even if the Empire were admitted to be a bad thing ..., the state of anarchy which would follow its fall would be worse. It is that state of anarchy which my project is pledged to fight. The fall of Empire, gentlemen, is a massive thing, however, and not easily fought. It is dictated by a rising bureaucracy, a receding initiative, a freezing of caste, a damning of curiosity. ... (F 33)

At the time of the Seldon trial there is a juvenile Emperor. There is a coterie that runs the affairs of the Empire. These small timers are symbolic and representative in function in that
they are the necessary result of the weak emperors and a falling Empire. "[T]here are five or six fat slobs who usually run an average planet. They get the rabbit punch.... But it settles itself out; it runs itself down. And then it is the old situation again with a different five or six" (FE 34). These are the different phases of reorientation of a falling civilization towards a better order.

Hari Seldon's interest is not only directed at saving the knowledge that belongs to the masses. Here is a mixing of the factual and the fictional elements by Asimov who's special interest in this Trilogy is to safeguard knowledge that keeps eroding with the fall of every civilization. It was mentioned in the introduction that this is a humanistic side of Asimov. A very new venture, unique to the Asimovian utopia is:

By saving the knowledge of the race. The sum of human knowledge is beyond any one man; any thousand men. With the destruction of our social fabric, science will be broken into a million pieces.... They will be helpless and useless by themselves. The bits of lore, meaningless, will not be passed on. They will be lost through the generations. But, if we now prepare a giant summary of all knowledge, it will never be lost. Coming generations will build on it, and will not have to rediscover it for themselves. (F 34)

Earlier, in real life, Francis Bacon had done it. What Bacon did
was to only preserve, not actively reinfuse at a later date. Still, this act of Bacon had spread a spirit of scientific inquiry all over Europe and became the clarion call for a new scientific world. Asimov intends to repair the civilization in dregs by establishing the economic and political fabric of the Galactic Empire and then give the saved up knowledge on a platter to be continued further.

Seldon would establish two Foundations. The First Foundation would be an open conspiracy type and the Second Foundation would be a secret one, not only physically hidden from view of others but also hidden in its function. This is an epistemological function dictated by the nature of psychohistory, discussed in the previous chapters. Both the Foundations would be made up of a select group of devoted individuals. Both the Foundations would be engaged in the establishment of a galactic monoculture, to fight the heteroculture assiduously sought and promoted by the warlords, a tendency deleterious to the commonweal of the Empire and the masses.

This is a lesson that history had taught us. Roman Empire was an oatic culture amidst barbarous borders envious of her advancement. This hiatus caused the fall of the Roman Empire. To avoid the mistake, the Foundationers try to spread the atomic culture, symbolic of scientific advancement, a spirit and advancement that the rest of the Galaxy did not possess, and therefore the cause of envy and invasion. The advancement is manifested in the invention of tiny refrigerators, devices of alchemy that turned base iron into gold instantaneously, atomic
field depressors and so on. The Foundationers spread this culture to their neighbours. At the end of 300 years, the Foundation has achieved control over the periphery.

The Foundationers have grown too complacent with their success, to retain individual initiative, and have grown to rely overmuch on the Seldon Plan. They forgot that the Seldon Plan helped those who helped themselves a maxim that the first hero of the Foundation, Salvor Hardin, so well emphasized. Lack of initiative and drive had cost civilizations earlier, the Greek, the Roman and so on.

The establishment of an institution of traders, a Phase II development, as said before, is the religion of science which is the instrument to bring about the Imperium. It is acknowledged here: "It [religion] is the most potent device known with which to control men and worlds" (F 210). Admittedly the intention is to control the men and the materials. The role of the traders is given thus:

The primary reason for the development of trade and traders was to introduce and spread this religion more quickly, and to insure that the introduction of new techniques and a new economy would be subject to our thorough and intimate control. (F 210)

The traders would do so by adopting the stimulus diffusion technique whereby the spirit of science would be kept alive, and also create an admiration for science and its uses. The earlier
method of Salvor Hardin, the first hero of the First Foundation, was to use: "the priesthood and the superstition of the people to overthrow the independence and power of the secular monarchs" (F 211). In the changed times the old technique would not suit. Priesthood is not a viable technique. "An atom-blaster is a good weapon, but it can point both ways" (F 213). Their own technique could boomerang! Moreover, reliance on mob is warned about. "Mob enthusiasm is a powerful thing, but it's notoriously fickle" (F 221). This is yet another device the First Foundationers cannot rely on again and again. These changes in design point to the need for dynamic response to social stimuli, that is, an un-Pavlovian device, that H.G.Wells recommended in his Modern Utopia.

At this juncture in the chronology of events, another Seldon Crisis is about to come. This time, because Korell would attack Terminus, with atomic ships supplied by the Empire. Hober Mallow, a trader, appoints himself as the fit person to fight the crisis. Fifty years ago, during Salvor Hardin days, the foreign policy was "conquest by missionary". But the Traders' policy is "economic bribery and trade in gadgetry" (F 227). Since,

Seldon crises are not solved by individuals but by historic forces. Hari Seldon, when he planned our course of future history, did not count on brilliant heroics but on the broad sweep of economics and sociology. So the solutions to the various crises must
be achieved by the forces that become available to us at the time. (F 228)

"In this case - trade." Trade without priests would be the new strategy. This passage, again, indicates the dynamic response that is required in shaping any society. A static, conditioned response would not fetch the required result. Hober Mallow had contributed this much to the Galactic situation. Earlier, Salvor Hardin had tried priesthood, since, he thought it the best to solve the crisis that existed then. Either way the insistence is on dynamic reaction to a situation than a predictable response. Another trader, Sutt, had tried the religious card and had failed since the situation was a different one. It may be pertinent to remember that during the Salvor Hardin days, the Council men urged taking a predictable reaction, namely, fighting the enemy by attacking. But Salvor Hardin chose priesthood as the method, and was successful.

Earlier, we found that Terminus a planet without metals has to invent a way to fight the enemy with this social situation. The result was miniaturization of what would be large unwieldy instruments and installations; a personal force field to protect against enemy attacks with atomic weapons, a tiny refrigerator, generators the size of a thumb, because it was all the metal that Terminus could afford. They had made the most of it. This is a sociological situation dictated by scarcity of metals. Thus a sociological situation would emerge according to the environment one is in. The enemy at this time is the Empire, which wants the Foundation out, since it sought to replace the Empire.
The whole war is a battle between those two systems; between the Empire and the Foundation; between the big and the little. To seize control of a world, they bribe with immense ships that can make war, but lack all economic significance. We, on the hand, bribe with little things, useless in war, but vital to prosperity and profits. (F 231)

The strategy adopted by Hober Mallow is to make Korellians dependent on gadgets that the Foundation traders supplied, and when they try to attack Terminus, the traders impose an economic blockade on the buyers. The intrigue adopted by Mallow is phrased by Sutt. "There is nothing straight about you; no motive that hasn't another behind it; no statement that hasn't three meanings" (F 232). Hober Mallow knows only too well that his strategy would be obsolete soon, and the next Seldon Crisis would force another strategy on the Foundationers, and he is sure that Seldon has prepared it. "There will be other crises in the time to come when money power has become as dead a force as religion is now" (F 233). Here is another need to adopt a kinetic response.

The result of the strategy adopted by Hober Mallow was the unconditional surrender of the Kingdom of Korell. It was the most unfought war on record, so says the Encyclopaedia Galactica. It had catapulted Hober Mallow as a Foundation hero after Salvor Hardin.
The action now moves on to the strife between Foundation representing the new paradigm and the dying First Galactic Empire. The second book of the Foundation Trilogy is named *Foundation and Empire*. It opens forty years after the victory of Hober Mallow over the kingdom of Korell. The renewal effort is 195 years into the Foundation Era. Ducem Barr's son Onum Barr is the ruler of Siwenna. One Bel Riose, the military governor of Siwenna appointed by the Empire, is out to conquer Terminus. Riose has searched for those traders who in his view are magicians, a misconception because of secrecy in the activities of the traders. "[F]or three years I had traced every rumour, every myth ... concerning the magicians..." (FE 12). Riose is another weak eyed officer who cannot read the health of the Empire. He feels that the Empire is strong, and Ducem Barr likens the death of a great Empire to cessation of circulation of blood in the human body, as quoted earlier in this chapter. This anthropomorphic view is similar to the anthropomorphic view of societies held by historians as seen earlier.

The condition of the Empire is far from the optimum required by the Seldon Plan. This is a demonstration of the hypothesis that a plan for a purposive future has to be generative and dynamic. Even the Seldon Plan presupposes human initiative apart from the deterministic plan itself. Asimov encourages inventiveness on the part of the present experiencers of history. Overreliance on the past is severely condemned. Though the Plan is largely based on approximations or probabilities, they are the only available guides to our desired future. Though the Plan is based on approximations or probabilities, it is a gamble worth taking, for, "the essential
point in running a risk is that the returns justify it" (FE 16). The Seldon Plan may be deterministic, yet, it requires some initiative on the part of those contemporaneous with the times as this remark shows. Seldon's rules have one of the contributing variables, a certain normal initiative on the part of the people of the Foundation themselves. "Seldon's laws help those who help themselves" (FE 18). Again, Asimov says "[t]he times make the man" (FE 19) which is evidence that man and moment must converge on one another. A Seer/leader is an existential product. These are indicative of the uncertainty prevailing in making sweeping affirmations in this field of sociology. At this point in the course of future history, a fourth Seldon crisis is in the offing.

The hypothetical problem that the second book chooses to tackle is the lack of the much needed initiative to modify the Seldon Plan to suit the times. Looking at it from a functional point of view, the contributing variable in the Seldon Plan cited earlier is lacking, and therefore the mathematics is bound to go wrong, and if it does, this is how it will manifest in the making of this history that the Trilogy unfolds.

Bel Riose, a viceroy of the Empire, wonders how the Foundation is able to withstand even the pressures of the Empire against its growth. This is an indication of the foolproof secrecy around the Foundation and its activities. Ducem Barr, a Foundation man, predicts failure in Bel Riose's attempts at getting at the secret he is very much after. Ducem Barr explains:
without pretending to predict the actions of individual humans, it formulated definite laws capable of mathematical analysis and extrapolation to govern and predict the mass action of human groups. (FE 23)

This statement of Ducem Barr, while explaining the devolution of the Seldon Plan, underscores the weakness, namely, the inability of psychohistory to predict the reactions of individuals accurately. Again, about the timing of the Plan, Ducem Barr explains: "The place, time, and conditions all conspire mathematically and so inevitably to the development of Universal Empire" (FE 23). Ducem Barr puts the ability of psychohistory in a better perspective: "It is the vaster background that has been foreseen" (FE 23). Going by these explanations of the workings of the Seldon Plan, Bel Riose may at the moment be apparently successful, but he has to lose at the end since he is already in the dragnet of psychohistoric necessity. The nature of predetermination intended here is not like that of a robot, that slavishly obeys its programmed actions. But it is as though one would be driven to what he ought to do because of psychohistorical necessity. It has already been seen that necessity is the architect of change. But psychohistory has divined the causes behind creation of necessity. In a technology for society, necessity is behind the creation of sociological forces. It is understanding these forces that gives man control over change. The free will that the orthodox minded so tenaciously swear by is subject to necessity thus created. Historically conditioned man, one who is on a leash with the past as seen before, is presented with a few equipossible
choices, out of which he is to choose the one most suited to his time and condition the one that would guarantee the highest probability vis-a-vis the necessity. The historical man's freewill is thus circumscribed for ever. So do the Seldon Crises. Here, in the Foundation Trilogy not only the First Foundationers but others as well are forced by sociological conditions to pursue a definite course predetermined by necessity.

Behaviour of humans is so far certain in that it is driven by the dead hand of the mathematics of human behaviour. Bel Riose is a symbolic illustration of this human condition. Bel Riose, the man and his progress do not matter in the grand scheme of things that the Seldon Plan envisaged. Bel Riose-like figures are bound to appear and disappear. Bel Riose's ambitious action is a typical phase in a historical drama of resurrection especially when the weakened empire is headed by an inefficient emperor. Now a war is on. Since these are events dictated by the force generated by a great mass of individuals, powerless individuals like Ducem Barr have only to sit and wait.

Soon, Ducem Barr, and Lathan Devers of the Foundation, now a prisoner of Bel Riose, escape and leave the kingdom of Siwenna to apprise the Emperor of his subordinate Bel Riose's design to overthrow him. An ambitious Bel Riose plans to monopolize the use of the instrument called the transmuter, the gadget that turns base metal into gold, so that he could become the richest man in the whole galaxy. But, from the Foundation point of view, the strategy of spreading the wonders of atomic science has started paying dividends. Bel Riose could never have known the
capriciousness behind such devices. These devices are merely traps to get the ambitious, so that they could be subdued and their inimical designs smashed. (George Orwell shows in his *1984* that a similar device could be used by anarchists to entrap those opposed to oligarchy). This is a way of conditioning behaviour by employing positive reinforcers, whereby the victims are persuaded to persevere their designs that are bound to fail. Again, Bel Riose and Roderig are examples of generals taking over power during these days of weak emperors. The emperors were themselves once viceroys who overthrew their emperors as historical necessity would have them do. Such subversions would continue until a strong emperor emerged who should be the emperor in the right sense of the word.

Next, Ducem Barr's discourse considers the hypothesis when the emperor and general of the army were one and the same person. In that event, when the emperor goes out on a conquest binge, other power mongers would overthrow him by staging an internal coup. Though this is a hypothetical situation at this stage of the story, this is the hypothesis on which the next episode would be based -- the emergence of the Mule who is described as a "Charlemagne of Galactic history" by Donald Wolheim (39).

The Mule is a study in psychology, especially the effect of childhood ill-breeding. More particularly, the Mule is a study in pathobiography and object relation theories. His confusion is clear. He is physically deformed. He has had a disturbed emotional life.

There is nothing really to my childhood ... that I care to remember... My meagerness is glandular ... It was
not possible for me to lead a normal childhood. My mother died before she saw me. I do not know my father. I grew up haphazard; wounded and tortured in mind, full of self-pity and hatred of others... All avoided me; most out of dislike; some out of fear.... I was a mutant.... (FE 168)

As a mutant he was born with unusual powers, "I am a telepath, but not a complete one ..." (FE 169) which is beyond the ken of psychohistory to explain. "To me men's minds are dials with pointers that indicate the prevailing emotion... Slowly, I learned that I could reach into those minds and turn the pointer to the spot I wished, that I could nail it there forever" (FE 168). The Mule has become a megalomaniac because of his life circumstances. Others were not so damned able. Uncannily the Mule is aware of this exceptional quality. He begins to exploit this oddity in him, as he would exploit the time of history at this moment in his life. The Mule's actions are "the desire to make up for the position of [his] earlier life" (FE 169). All this rant could hardly evoke sympathy for the Mule. The Mule is one of its kind in this respect in the Foundation Trilogy.

When the time in the Trilogy is 300 years into the Foundation era, there are two defenders of the Seldon Plan in the persons of Bayta and her husband Toren. Hari Seldon and such Seers/leaders always enjoyed empathy with a select group of individuals. Bayta is a descendant of Hober Mallow, the second hero of the Foundation, and therefore a 'chosen' among the characters, but, Toren is a provincial. Bayta has a clear view of the Seldon Plan. She says: "it seems to me that the whole
The essence of Seldon's Plan was to create a world better than the ancient one..." (FE 69). Here Bayta not only has the right perspective of the renewal plan of Hari Seldon, she also pictures Hari Seldon as a utopian since his objective is to create a better world. Utopists in general wished to create a better world. Bayta further pictures the renewal technology of Hari Seldon: "It was the whole aim of his life-work to set up such conditions as would insure a speedier rejuvenation" (FE 69). It was noticed in Chapter IV, that Erik Erikson said the same; that society was capable of rejuvenation. It thus opened up a hope for a better future. Clearly, Seldon sets up conditions tending towards his goal by creating sociological forces that were given by Hegel as the forces behind history. It is believed that Seldon set up the reinforcers, or operant conditions for the Foundationers to take a particular course of action.

The Seldon Plan itself and the manner of its operation are given as:

Seldon predicted a series of crises through the thousand years of growth, each of which would force a new turning of our history into a pre-calculated path. It is those crises which direct us -- and therefore a crisis must come now. (FE 69)

The fall and the aftermath of any empire has already been mapped out by psychohistory. Any society would disintegrate because of the triple disease of inertia, despotism, and maldistribution of the goods. Trantor at this moment suffered from these defects.

The Foundation is at a critical phase now. All societies
pass through these phases. The Foundation on Terminus is not an exception. History in flux creates conditions in which the Foundation society found itself at this juncture. It had lost its initiative and had gone into an inertia of no action. "And that very abandonment of effort; that growing inertia; that lapse into softness and into a decadent hedonistic culture, means the ruin of the Plan. They must be self-propelled" (SF 131). It is given to despotism and it is plagued by maldistribution. There is less cohesion between the member parts of the Foundation, namely, the rulers of the Foundation and the independent traders. This historical situation is conducive for powers like the Mule to sustain its growth.

The Mule by definition is an autocratic mind conditioner. A forceful ruler, who would rule not by empathy as is the case with natural leaders, but by fear and submission. The Mule is a condottiere, that is, leader of a troupe of mercenaries. The purpose of the Mule is not social but a selfish one. It is solely to further his own estranged ego. The Mule does not share the willing genetic ego-sympathy of his followers. In fact, he had no followers, only converts, not out of a genetic brotherhood with the leader as noticed in the last chapter.

The Foundation is faced with this crisis, the emergence of the Mule and his advancing powers and domain. The earlier crises that the Foundation faced were foreseen by wise leaders. But this fourth crisis is due to the inevitability of history. The rulers of the Foundation are called upon to generate suitable initiative, but they are not equipped to face a situation of this nature.
However, even with suitable initiative it would have been impossible to foresee the Mule. For, the Mule is symbolically the indeterminate factor that history baffles us with every now and then calling for a commonsensical solution, rather than a run of the mill solution. Further, the Mule is a factor in the furtherance of the concept of the Foundation Trilogy. The Mule is symbolic of the lacuna in the predictability of history using psychohistory and also the present day world's overreliance on physical sciences to the neglect of the mental sciences. Asimov regrets that the social sciences have not been given that much importance as have been given the physical sciences. He defends his opinion thus: "The laws of history are as absolute as the laws of physics, and if the probabilities of error are greater, it is only because history does not deal with as many humans as physics does atoms, so that individual variations count for more" (FE 69). The Mule therefore represents the prowess of the other less explored, and undeveloped mental sciences, the need for the examination of which is emphasized by the Foundation Trilogy.

The First Foundation would, of necessity, go down before the Mule, since there is a need for the unobtainable paradigm shift, from the physical sciences to the mental sciences, which the First Foundation is not designed to handle. On the contrary, the Second Foundation is by design equipped to deal with such new paradigms. The First Foundation is designed to face and solve problems arising out of foreseeable social causes only, the social causes that have been predetermined by psychohistory. Further, the First Foundation would have to go down because of
the double weakness of the want of the new paradigm that the Mule stood for, and the emergence of the Mule being an unforeseeable accident in history that is not part of the logical process of history. Psychohistory is incapable of predicting accidents and chance occurrences, as was noticed earlier. In the domain of history, a freak happening is beyond predictability however much we may seek to become certain about historical processes. Facing challenges posed by forces like the Mule, needs a dynamic attitude and resourcefulness. In the modern times, therefore, the system planners insist on the constitution of a superordinate body to meet such challenges.

Continuing with the plot of the Foundation Trilogy at this critical juncture, when its very existence stood threatened, the Mule is found moving in secrecy. His existence is an invincible secret, as silent as the Second Foundation itself. Only later do we understand that he was too much in the open to be detected, again, like the Second Foundation. He moves about in the guise of a clown named Magnifico. Bayta and Toren are taken to the clown Magnifico, never knowing that the clown is the Mule in disguise. Bayta keeps herself close to the clown in the hope that she would be able to identify the Mule since she believes that the only person who had ever seen the Mule is the clown. The seat of the Mule is now the kingdom of Kalgan. The Mule had by now taken the neighbouring kingdoms around Terminus. His advancement is attributed to the atomic field depressor in his possession. Atomic science was once the monopoly of Terminus alone. But later, consciously, interest was kindled in advanced atomic science for strategic reasons by the First Foundation. The Mutant's success is attributed to his mind reading abilities
hitherto unencountered outside of the Second Foundation. After conquering the neighbouring kingdoms, the Mule is targeting the First Foundation, a society skilled in pure sciences and therefore vulnerable. "It could conquer armies and weapons. It could pit force against force. But what of the mortal attack of a mutant such as the Mule?" (FE 163). This is time the superordinate Second Foundation interfered. If the rise of the Mule is one kind of threat to the Second Foundation, the First Foundation itself is another source of threat. On Terminus, the foundationers are preoccupied with the identification of a Second Foundation, which, in their opinion, (and indeed), is dictating their activities. This is a situation no self-respecting group could put up with. Ebling Mis is the psychologist who perceives the existence of Second Foundation, at the exhortation of the Mule that too. Mis tries to build the science of psychohistory. With the Mule poised to attack Terminus, the simulacrum of Hari Seldon appears for the fifth time. The simulacrum pronounces deviation in the Plan. Hari Seldon expresses anxiety about the success of the Plan. "I have few fears yet of a breakdown in the Plan. For the first three centuries the percentage probability of nondeviation is nine-four point two" (FE 114). The success of the Plan has been jeopardised by the lack of inertia in the First Foundationers. The First Foundation stood eclipsed. The social causes are: an undisciplined outer group and an authoritarian centre, at loggerheads with each other and working at cross purposes. An attack by the independent traders too is imminent at this juncture, but it is later dropped because of the greater threat posed by the Mule.
At this point in the Seldon Plan, Terminus is under the care of Mayor Indbur who is overconfident that the Seldon Plan would see him through the crisis. Theoretically, Indbur's actions are deliberate because he has foreknowledge. On his own he shows no anxiety to protect the Plan. There is to add the invasion of the traders. The revolt of the independent traders has introduced a new variable in the Plan. In the days of an earlier Mayor of Terminus, Hober Mallow, the First Foundation and the traders were united. Hober Mallow was himself a trader. But at this time in the history of the Foundation, when Indbur is the Mayor, his despotism has resulted in discord between the First Foundation and the independent traders. The First Foundation falls to the superior power of the Mule. The Mule now has to face the independent traders.

Four months after the fall of the First Foundation, the Mule turns towards Haven where Bayta and Toren live. Haven alone stood against the Mule, because individual initiative was guiding their action. The Mule had so far been successful because of the capability to control the emotions of men using mass psychosis (FE 121). Ebling Mis is still confident that the Foundation would succeed, since, Seldon did not spell defeat for the Foundation in his last appearance. This is again, foreknowledge of things to come, which is sure to alter one's actions. He looks for a way out. Mis's suggestion is to hit at the weakness of the Mule with great strength. The Mule's weakness, we would learn at the end, lay in human affection, a something he was deprived of all his life, and which had touched pathologic heights. Bayta loved the Mule in the guise of Magnifico, the clown.

In his own terms Ebling Mis reasons out the cause of the
fall of the Foundation. In his opinion Seldon had assumed that there shall be no fundamental change in human society. Human reaction to stimuli would remain constant. This is a mistake that the social planners are expected to avoid and are warned against by social critics. Mis feels that fixed reaction to stimuli must have caused the fall, since, he finds the emotional responses of human beings. The Mule had the capacity to change the emotion from one to any of the other, love, devotion, adoration, terror etc. The Mule could induce mass psychosis. In this potential of the Mule, Asimov is showing that "Psychology, not physics, was working" (FE 163), thereby pointing out that psychology is a better tool to control societies. Very often we notice that people and societies in our every day world are gripped and conducted by emotion, emanating either from an event or a person. The Klu Klux Klan, the Cult of Death, even nationalism, for example, are emotional unities.

Finally, Ebling Mis emerges out of the investigation self assured that it is only the Second Foundation that must defeat the Mule, and that the Second Foundation should be informed about it, an unnecessary anxiety since the Second Foundation kept supervising the whole process, and was only waiting for the correct turn of events to beat the Mule in his own game. The Mule has to be stopped since its advancement meant disaster for the emergence of the Second Galactic Empire.

If the Mule's descendants inherit his mental powers -- You see? Homo sapiens could not compete. There would be new dominant race -- a new aristocracy -- with homo
sapiens demoted to slave labor as an inferior race.
(FE 163)

The dynasty that the Mule might found, in that event, would be unhealthy and would lead to barbarism without end.

The climax is reached when Ebling Mis, in the presence of the clown Magnifico, is about to pronounce the location of the Second Foundation to enable Bayta to reach the news of the Mule's advancements to the Second Foundation. Bayta guns down Ebling Mis since she feels that the secret of the location of the Second Foundation might be blurted out inadvertently. Ebling Mis dies a martyr for the cause of the Second Foundation. But this act of Bayta is a double crossing of the intentions of the Mule, who, in fact, was exhorting Ebling Mis to exert in the direction of finding the location of the Second Foundation.

Though Bayta did what her instinct seemed to dictate, she realizes that she is being conducted by some other agency. Her suspicion is that she is a chosen of some unsure design. She feels that she must be a part of a greater plan since her actions seem to serve the dictates of a better reason. She may, for all her seeming independence, be a tool. This would be similar to the feeling of her daughter Arcadia in the next book of the Foundation Trilogy who would also be controlled to play stooge to the Second Foundation. Already, Bayta is the descendant of the second hero of the Foundation, Hober Mallow. Bayta realizes "[h]ow defeat has always bitten at [their] heels, and never actually managed to nip [them]?" (FE 166). Her faint knowledge that she must belong to the power centre is shown in her musings as the following: "[S]uch things don't happen in real life ... We
don't fall from one vortex of politics into another continuously for the space of a year - unless we carry the vortex within us. Unless we carry the source of infection within us!" (FE 166). The feeling that Bayta displays is typical of anyone who is psychologically controlled as this observation shows: "In psychic as in materialistic determinism, the actors do not know their goals, which are decided from below. Everything "above the line" is but superstition and illusion" (Barzun 81). Soon it is discovered that the Mule and clown Magnifico are one and the same person. The Mule had all the time been in the open, too much in the open to arouse suspicion. The Mule drops his disguise and emerges into the open realizing that his game is up. He admits his failure to his own weakness, weakness for affection, understanding and acceptance. "It's a weakness of mine -- I want people to understand me" (FE 168). He confesses that his powers are limited. He could not be anything by himself. He needed middlemen agents. That explains his *modus operandi* in subjugating others' will to his will. The last victim of this need was Ebling Mis.

The Mule thus exhibits qualities different from that of the true leaders, who performed by the mutual will of the others, by an inclusion of the wills, by a shared intention, like it happens in the Foundationers, in general. The loyalty factor is absent in the men tampered by the Mule. They all serve the Mule because of coercion. Ebling Mis was dying because of the coercion, without his knowing. In contrast, submission to the Seldon Plan is voluntary and sacrificial except that it has been forced in on them by conceptual prerequisites. Very soon, another character,
Channis, would volunteer to have his memory centre surgically altered so that he would never remember the location of the Second Foundation, lest he blurt the secret out to the Mule like Ebling Mis was about to do before he was blasted down by Bayta. Surgical interference would constitute an external interference. Surgical interference is another means of behaviour modification which amounts to a scalpel intervention in manipulating what is described as the "tamper plateau" in the human brain. Asimov seems to approve here another method of behaviour modification, out and away from the psychological methods of reinforcement. It may not be out of place to cite here the prevalence of a new method to treat emotionally depressed patients wherein the depression inducing centre in the brain is removed surgically. An objectionable behaviour of the Mule should not be lost sight of. The objective of the Mule is not a laudable one since it does not transcend the egotistic. It is so self-centred that one does not espy the contrasting genetic oneness that Hari Seldon feels when he spelt it out to the inquisitors earlier. No doubt the Mule's purpose is to strive for restoration of order in the chaotic Galactic Empire which elevates one to the stature of a leader or seer. But the absence of the moral element in his actions demands that his designs shall be thwarted. Bayta warns the Mule of his impending end at the hands of the Second Foundationers: "You shall be the last ruler of your dynasty, as well as the first" (FE 172). Still, the Mule had thought of founding a dynasty by marrying none other than Bayta herself.

The third book of the Foundation Trilogy is titled Second Foundation. Defeating the forces that challenge the secrecy of the Second Foundation, entrusted with the safety of the Second
Galactic Empire, is the story of this third book.

This part of the Foundation Trilogy deals with the secret Second Foundation striving to restore its little lost secret, the safety of which is a theoretical necessity to plan a future with a definite goal. Going by Well's definition, this is a secret freemasonry method for world take over. It begins with the appearance of the simulacrum of Hari Seldon. Hari Seldon discloses the existence of a Second Foundation. As far back in the first book of the Trilogy itself, Seldon had apprised Gaal Dornick that a majority of his group would go to Terminus, but, some would remain on Trantor, the nerve centre of the First Galactic Empire. Later, he discloses the existence of the Second Foundation at the extreme end of the Galaxy, the Star's End. For the like of those trained to think in the methods of the physical sciences, the location of the Second Foundation would be a geometric location, viz. the other end, the opposite end. But for those given to the mental sciences, the interpretation would be very different. The charade of the location of the Second Foundation remains clouded in mystery until the last, when the First Speaker interprets it.

Their inquisitiveness thus kindled by Hari Seldon himself, Salvor Hardin, the first hero of the Foundation, knew he was working for the Second Foundation and its design. The second hero, Hober Mallow, submitted to it and gave his best as a trader. Bayta, who was chosen to confound the Mule, got a glimmer of the truth. Ebling Mis almost succeeded in putting the broken threads together and establishing the existence of the Second Foundation.
The strategy that the Second Foundation would adopt to repair the damage done to its secrecy is a familiar one. The pursuers of the secret would be allowed their delusions and deceptions so that their curiosity would not shift to a still closer examination. Asimov uses this strategy in the robotic stories, the purpose of which is given by Donald M. Hassler. "The paradox is simply that the apparent certainty liberates continual and near-infinite permutations" (SFS 15:1 1988 40). The First Foundation had adopted the same strategy, whenever it had to deal with the warlords. The conquerors of Terminus were always allowed to win first. But later they were outwitted, surely and conclusively. The pattern is, as soon as a kingdom is taken, there would be internal rebellion, and the region would pass into the hands of the Foundation. This was what the Russians did to their enemies, Napoleon and Hitler. They were allowed to go far into the Russian territory, until the coming of Winter season. When winter came the enemies were defeated utterly.

The First Foundation wants to seek and destroy the Second Foundation because it could not allow itself to be subordinated to the rule of the psychologists who represent a utopian new orientation.

Systems programming as discussed in the last chapter does not take into consideration the ethical question of free will of man. But in the Foundation Trilogy free will is a factor and an issue. The damage to secrecy of the Plan was the result of the shortfall in the science of psychohistory. Seldon could not
foresee the overwhelming power of a single human being, a Mutant. The self styled leader of the Galactic Empire, the Mule, sought to find and destroy the Second Foundation because, he saw in the Second Foundation a prime enemy to establish a Second Galactic Empire. The First Foundation on the other hand would seek to destroy the Second Foundation because, it feels its free will questioned and their pride hurt.

By this time the Mule had succeeded in bringing one tenth of the volume of the Galaxy and one fifteenth of its population under his control. He had been waiting on Kalgan for five years observing "static caution". The aspirations of the Mule are in sharp contrast to Seldon and his group. The Mule's intentions are an example of an unethical motive. His intention is personal aggrandisement with an underlying element of revenge. The Mule exults: "Every star! Every star he could see - and every star he couldn't see. It must all be his!" (SF 18). This is personalization as against the self effacing impersonalization that Hari Seldon and his 'heroes' stand for.

The secret interference of the Second Foundation in the affairs of others was perceived by the Mule himself. He believed that a Second Foundation existed: "[b]ecause minds under my control have been interfered with. Delicately! Subtly! ... And these interferences are increasing and hitting valuable men at important times" (SF 25). This proves the secret operations of the Second Foundation. Secrecy is so closely guarded that it hardly comes out.

Now to speed things up, just as Seldon did initially to secure Terminus by forcing a trial, the Second Foundation must
encourage the Mule to find the Second Foundation. The Mule would be allowed to search for the Second Foundation. The Mule's actions are now ironically directed by the Second Foundation. In the encounter with the Mule is the Second Foundation's "midwifery" intervention, a technique that system planners recommend. While discussing the systemic architechtonic it was stated that such interventions are a part of the systems programming for a purposive future. The Second Foundation is performing its superordinate role as the promoter of the design. Theoretically, control passes from the subordinate body to the superordinate body thus fulfilling this essentiality in system planning.

The location of the Second Foundation being clothed in a charade, a vague Star's End, it is traced to another end of the Galaxy on a planet named Tazenda. The Mule chooses to employ the person named Channis whose brain centres have been tampered with to outwit the Mule's design. Channis is a Second Foundation man, used as a ploy by the Mule to outwit the Second Foundation, not knowing that the self same tool would be used by the Second Foundation to defeat the Mule in his own game. But the Mule himself suspects Channis of misleading him. The Mule has to accept it since, he has willingly introduced an unnecessary variable in his scheme. The Mule was not able to read the mind of Channis, because, he could only read emotions, not ideas. "If only he could read ideas" (SF 76). Here, behaviour modification is the tool employed to fool the Mule into believing that Tazenda is the seat of the Second Foundation. The Mule walks into the trap because of the positive reinforcer placed in
the path of the Mule by the Second Foundation. Reinforcers help in opinion forming and decision making. Reinforcers are subtle tools, covert, and persuasive. The positive reinforcer used to condition the behaviour of the Mule strengthens his belief that the Second Foundation had been destroyed, and in killing Channis, the Mule is led to believe that the last Second Foundation man had been eliminated. This strategy slackens the Mule, and his laxity leaves room for the Second Foundation to undermine the progress of the Mule. The ultimate guardian of the Seldon Plan, the First Speaker, takes control of the situation by double crossing the First Foundation.

Assuming control of the situation, the First Speaker explains the powers of the Mule as an animal prowess, that humans have left to atrophy. The Mule is a megalomaniac with psychopathic paranoia that was prompted by physical deformity. The hatred that the Mule had is attributed to the Mule's younger days. The Mule's story is a study of the objective relational and pathopsychological conditions discussed in the last chapter and in this chapter. This is acquiesced to by the Mule himself: "I have no sorrow for what I did in my necessity" (SF 84). Channis being a Second Foundation man, his brain has been tampered with to think naturally wrongly that Tazenda, and later Rossem, is the seat of the Second Foundation, since he is programmed to think so. Channis is but a wrong guide to the Mule. The Mule's search for the seat of the Second Foundation is forestalled taking help from behaviour manipulation.

When the Mule is confronted by the First Speaker, we are given to understand that the First Speaker entered the mind of
the Mule with his mind-reading powers and erased the ideas of the Second Foundation in the Mule's brain itself. This aspect of mind control may appear far fetched in a hard core science fiction novel. Also, a revolt is awaiting the Mule when he goes back to Kalgan. We have seen already thus, that whenever an autocratic leader tried to settle on a foreign land, trouble would brew at home to overthrow him. The revolt on Kalgan is an engineered revolt, just like all the other revolts were in the other regions. This is the pattern of the functioning of the Second Foundation to secure victory for the Seldon Plan. The conquerors have felt this strange happening always, but it was beyond their comprehension.

The Mule is not only conquered, but his mind state has also been altered to keep away from searching for the Second Foundation. The silenced Mule rules Kalgan as a defanged despot without any ambition of annexation. This part of the danger has been averted by the intervention of the Second Foundation, a something beyond the ken of the First Foundation. The Mule's defeat put an end to the era of warlords that preceded him. A phase in the aftermath of a collapsing civilization has been gone through, successfully managed by an appropriate body in the Seldon design. Also, the end of the Mule is a phase-shift event in itself. There shall be outside threats no more, nor shall there be outside interference in the process of the Seldon Plan poised as it is to the making of the Second Galactic Empire. The Second Foundation is left only with an internal threat now, and it knew how well to meet it.

Towards the end of 400 years from the start of the
Foundation era, the First Foundation is searching for the Second Foundation. Already, the Seldon Plan had crossed its critical stage with the subduing of the Mule. The misfortune of the First Foundation seeking to destroy the Second Foundation is foolhardiness concomitant on necessarily ordained ignorance. The First Foundation seeking to destroy the Second Foundation is like cutting one's own roots.

The Seldon Plan could become a piece of history. It was shown earlier that psychohistory approaches a certainty but not the certainty. The coming of the Mule and the way he was handled demonstrated the flexibility a social plan should possess to achieve its end or create a future history. It is common knowledge that the past could help fashion the future. But, the future could be achieved only with a flexible plan. Unlike the rigid plans of the millennial designs of the past, a systemic programme allows for flexibility in the devolution of the programme. Asimov invests his study with flexibility, in spite of the fact that he takes for granted reactions to stimuli would remain unchanged over time. The Second Foundation, being the supervisory body, is forced to bring in timely changes, minor ones, in the Plan, while the large flow of events rigidly go the way the master plan of Hari Seldon is designed. The systems strategists also desire the same. Large changes alone could be predicted by the Seldon Plan. The smaller ones have to be left to the care of the other bodies contemporaneous with history of the day, and here, that body is the Second Foundation.

It is twenty five years after the event of the First Speaker of the Second Foundation stopping the Mule. It has taken this
long time for bringing the people of the Galaxy back to the path of progress. The common man is the most difficult member in the plan to be convinced, while, he is also the most important. "For twenty five years he, and his administration, had been trying to force a Galaxy of stubborn and stupid human beings back to the path -- It was a terrible task" (SF 107). Pejorative adjectives like "mob" and "rabble" are used by Asimov to describe the common people, indicating his preference for the elites to work a renewal plan. In this again, Asimov is one with the leading social thinkers. The common man is never aware of the fact that he had swayed from the path leading to a healthy culture and civilization. A leader on the contrary is all the time aware and well informed of this as Erik Erikson observed, and the leader is an embodiment of this. Here, in the Foundation Trilogy, Hari Seldon alone could understand why humanity suffered. Others could not, however much they might try. This is the intuitive realization of Gaal Dornick in the first book of the Trilogy. Asimov goes into an examination of the hardships involved in systems planning for the future. One of the hardships is language as a means of communication. This we know was the opinion of Campbell when he first suggested a motif for the Foundation novels. If one could not understand this it is because of the inherent weakness of our communication through our known language as implied in the statement: "all the suffering that humanity ever knew can be traced to one fact that no man in the history of the Galaxy, until Hari Seldon, and very few men thereafter, could really understand one another" (SF 108). Because man hated man, they could not understand one another. Individuals were so egotistic that they failed to understand
others. "Each human being lived behind an impenetrable wall of choking mist within which no other but he existed" (SF 108). Asimov finds that speech is an inadequate means of communication. Therefore, "man had instinctively sought to circumvent the prison bars of ordinary speech. Semantics, symbolic logic, psychoanalysis -- they had all been devices whereby speech could either be refined or by-passed" (SF 109). Mathematization of psychology, it was felt, could help circumvent this problem of communication. Eventually, psychology was mathematised. And through the generalization of psychological knowledge from the individual to the group, sociology was also mathematised. The Seldon Plan could be set up because the quadrillion population became not simply human beings, but gigantic forces amenable to statistical analysis and treatment. Biostatistics and neurochemical electromathematics had the power to make one a psychohistorian. Hari Seldon, who wielded all such abilities is therefore a scientist Seer, a rational seer, befitting the scientific civilization we are.

The difference between the Mule's ability and the ability of the Second Foundation is that the Second Foundationers are not instinctive readers of emotion like the Mule. The Second Foundationers scientifically deduced them as a result of training; by reading the reaction of humans to stimuli which is a clear indication of the way one's mind worked. Their deductions could be analyzed statistically. On this deduction could be based the science of behaviour mod. Instinctive ability is not a perceptible prowess, since, it is not overtly visible. It is only an invisible prompt.
The leader of the Second Foundation, known merely as the First Speaker, must "not only be aware of the mathematical intricacies of the Seldon Plan; he must have a sympathy for it and its ends. He must love the Plan; "to him it must be life and breath. More than that, it must even be as a living friend" (SF 110-111). Asimov consciously avoids making the mistake of aiming at a perfect society, in other words, a millennial society. "The Seldon Plan is neither complete nor correct. Instead, it is merely the best that could be done at the time" (SF 112). It was not intended to be perfect, since it is an evolving design. No design for the future can be perfect. Since human response to stimuli is not standard, perfection cannot be achieved. Because the Seldon Plan is not perfect, over a dozen generations of men are able to contribute to the Plan in their own way - persons like Salvor Hardin, Hober Mallow, Ebling Mis and others also contribute in their own way towards the completion of the Plan. And these alone cannot be the only changes. Further changes are anticipated and a readiness to contribute is warranted. The Seldon Plan, therefore, is not a religion and making changes is not blasphemy. Thus the Seldon Plan holds itself out as a dynamic systemic design in its very conception.

The notion that physical sciences are not good enough for managing society is emphasized by Asimov. The First Speaker says that physical sciences are imperfect as managerial sciences. Mental sciences alone can handle these problems.

Control of self and society has been left to chance or to the vague gropings of intuitive ethical systems based on inspiration and emotion. As a result, no
culture of greater stability than about fifty five percent has ever existed, and these only as the result of great human misery. (SF 115)

It has been shown that a large minority take part in the advance of physical sciences. One who is to lead Man can do so with the greater involvement of mental sciences, and the benefits are longlasting and less apparent.

Under normal conditions, this would be resented because, this would lead to the development of a benevolent dictatorship of the morally best even if it is "[v]irtually a higher sub-division of Man" (SF 115). The need is to create a condition to accept this new orientation.

It was noticed in chapter III that the utopias prepare us for the days to come. They make the transition from one kind of orientation to another smooth and less objectionable. So also, the Seldon Plan would create conditions for receiving a new orientation, from the physical to the mental sciences. In other words "the First Foundation supplies the physical framework of a single political unit, and the Second Foundation supplies the mental framework of a ready-made ruling class" (SF 116). The Second Foundation would also produce psychologists, who are a minimal number, to assume leadership.

This section of the Foundation Trilogy deals with restoring lost secrecy of the Second Foundation with respect to the First Foundation and reassuring the First Foundation with respect to its illusion of free will. This section is also used to emphasize the need for randomness in behaviour to enable
prediction. Foreknowledge is unwelcome in psychohistoric predictions. One of the assumptions of Asimov is that behaviour of humans should be unpremeditated. Ever since the Second Foundation took an active part in stopping the Mule, its secrecy had been lost. "The First Foundation has learned of us, and their actions are now predicated on that knowledge" (SF 117). A character in the **Second Foundation**, Dr. Darell, would demonstrate this fact. Knowledge of being watched or manipulated makes one's reaction to stimuli deliberate rather than natural.

The First Foundation was based on physical sciences and inanimate technology. The reason for our civilizations not having pursued the study of mental sciences may be that "it was less respectable because less immediately useful; and it was poorly financed since it was less profitable" (SF 121). It is Asimov's contention that this world developed the physical sciences considering its immediate benefits. This world got carried away by the small benefits ignoring the larger ones. When the First Galactic Empire fell, knowledge fragmented, everywhere except in the First Foundation. "The one exception to this, of course, was the First Foundation where the spark of science, revitalized and grown more intense was maintained and fed to flame" (SF 121). It was the physical science only. Seldon first made electroencephalography a reliable science to follow the thought process. It was further developed by the First Foundation. Dr. Darell, one who would rebel against the Second Foundation, is an encephalographer, who shared a seat with the psychohistorians. This is an ideal situation, that Asimov wants to be brought into vogue in the modern world, that is, the psychologists and
physicists sharing a common platform on equal footing to face the problems of our society. Pursuit of knowledge, and confluence of the parascientific findings would benefit mankind in a wholesome manner. Using the science of electroencephalography to read the minds of affected or suspected individuals, the First Foundation had found out that the Second Foundation is directing the historical course of the galaxy. At this stage of development, an encephalographic brain pattern existed on every First Foundation subject.

A further fact to strengthen their belief in the existence of the Second Foundation is that there was the Second Foundation which worked in such a way that "[t]hey would never destroy or remove, when they could achieve their ends by creating a state of mind" (SF 128-129). The act of creating a state of mind is behaviour conditioning by reinforcements or other means of behaviour modification.

This is also creating a favourable environment, as the ultimate one is to be the Second Galactic Empire. Things have reached a stage when, the First Foundation has come into more knowledge than ordinary. Seldon had planned that the First Foundation should know the Second Foundation as the guardian of the Plan, but should not know how it guarded the Plan. This tension and uncertainty would keep the First Foundation contributing its maximum to the furtherance of the Plan. "They know that an agency exists which watches their every step and will not let them fall" (SF 130). Yet knowledge of this is likely to smother initiative which will work against the interests of the Plan as quoted above. This knowledge will
turn some of the First Foundationers against the Second Foundation.

A First Foundationer, Homir Munn, launches a search operation for the Second Foundation. Suddenly from nowhere a fourteen year old young girl named Arcadia Darell, the grand daughter of Bayta of the previous book, joins him. We learn later that Arcadia was the controlled Second Foundationer with whose help, this attempt to locate the Second Foundation would be thwarted. Arcadia had a faint idea that she is a controlled subject. "She knew that the Second Foundation was the enemy, yet, it didn't bother her" (SF 141). Fifty years after the Mule's defeat, the domain that the Mule commanded has fallen apart. Kalgan the seat of the Mule, had now another conqueror named Lord Stettin. Lord Stettin wanted to take the Foundation, in spite of his minister Lev Meirus warning him of its futility. The Foundation is no longer the only place with the atomic power. The Mule had spread it to half the galaxy. Stettin is spurred on to conquer the Galaxy on the false belief that the Second Foundation has been rendered powerless, especially since it took ten long, inefficient years to stop the Mule. But Stettin an upstart warlord could not have known that the social forces necessary to bring about change make a slow progress. The Seldon Plan is, not unnecessarily, a one millennium programme.

But Kalgan had a Second Foundation member watching the progress in secrecy. She is Lady Callia, a close friend of Lord Stettin. She is a plant of the Second Foundation, on Kalgan to oversee the progress of the Seldon Plan.
However, on Terminus, Dr. Darell is sure that Kalgan would never succeed, because there had been many such enemies with physical powers: "Kalgan! Nonsense! A merely physical enemy! Those had always been beaten" (SF 157). He knew physical prowess is second rate. Dr. Darell is disturbed by the feeling that he is bound to fight an unknown enemy. "He knew that he could live only by fighting that vague and fearful enemy that deprived him of the dignity of manhood by controlling his destiny; that made life a miserable struggle against a foreordained end; that made all the universe a hateful and deadly chess game" (SF 158). Another baffling fact about the Second Foundation is its location. Apart from a vague reference to its place -- "at the other end of the Galaxy at Star's End" -- there were no other pointers to the location of the Second Foundation. One would not be able to find it even if they came across the Second Foundation. Knowledge of the location of the Second Foundation was such a closely guarded secret.

On Kalgan, moves and counter moves result in imprisoning Arcadia and Homir Munn. But Callia the Second Foundationer allows Arcadia to leave Kalgan so that she could inform the Second Foundation about the war. "Because in all the Galaxy, she and she alone, except for they themselves, knew the Second Foundation" (SF 167). A fleeing Arcadia is further led by a turn of events to go to Trantor instead of Terminus so that her father, Dr. Darell could be brainwashed. She is assisted by two old people, a husband and wife. Later we learn that the male member is the First Speaker, the very protector of the Seldon
Plan, named Preem Palver. Dr. Darell is now seeking to destroy the Second Foundation. Arcadia has a subconscious awareness that she knew the location of the Second Foundation, since she is not a normal person, but a person who had been tampered with from the beginning without her knowledge. The First Foundationers are uneasily aware of their miserable existence that they are a manipulated work force.

Not just the workforce, even the elite of First Foundation are disturbed. Dr. Darell was weary of fighting the unknown enemy, and Arcadia "was weary to death of fighting the universe" (SF 172). But she could never fight them. "Whatever she did, it might only be what those terrible omnipotents wanted to do" (SF 179). As a controlled subject, she could only obey the dictates of the Second Foundation.

As said earlier, since Arcadia has been masterminded to go to Trantor, it was expected that her father Dr. Darell would follow his daughter to Trantor. Unfortunately Dr. Darell chooses not to go to Trantor, for, he had known the purpose of the maneuver and had started taking counter measures. In reality, he would adopt the unexpected response condition to defeat the psychohistoric presumptions: "To us, all life is a series of accidents to be met with by improvisations. To them, all life is purposive and should be met by precalculations" (SF 187). This event in the novel demonstrates the damage that could be done to psychohistoric predictions by reactions that are not natural but put on. Dr. Darell chooses to resist since he understood the result of his action. He is quite aware of the deterministic clasp of the Second Foundation closing in on him.
since he feels that: "they ... may at least have calculated my probable reaction. So I distrust my impulses, my desires, my probable reactions" (SF 187). Dr.Darell's actions would now be deliberate and defy the laws of psychohistory. But the science of psychohistory as practiced by the Second Foundation has made allowances for such whimsical behaviour of individuals, whose reactions may not affect the scheme so much. In this managed world, there is no issue that cannot be solved one way or the other. Dr.Darel1 would now be allowed to have his way since as time passes by, his knowledge would be a forgotten one due to sheer remoteness of time.

It is shown in The Foundation Trilogy that an individual's reactions could also be predicted going by the principle of recurrence in behaviour, though at the cost of accuracy. Seldon had done it earlier to secure a place of banishment on Terminus. Dr.Darell wants to consciously upset the calculations, and would "rather present them with an improbable reaction" (SF 187). It is proved here, once again, that even an individual's reactions could be predicted, though not with any great degree of certainty. When it is pointed out to him by a Second Foundationer, Pelleas Anthor, that his reactions could be understood by the Second Foundation, Dr.Darell admits defeat, and resigns himself to the futility. "There is an endless cycle of double-double-double-double-crosses. No matter how far I follow that cycle" (SF 187). The aggression of Kalgan itself is a managed one. Stettin, the ruler of Kalgan, is a controlled subject, and he does not realize why he had acted the way he did. While Kalgan is at war, the Kalganians revolt at home. This as
we know, is the usual pattern followed by the Second Foundation to overthrow a monarch pursuing short time ambitions detrimental to the innate love of order in all well meaning individuals. Stettin is silenced, and rendered innocuous. Dr. Darrell's defiance would turn into a chatter.

While studying the probability estimates, we noticed that probability notions can be arrived at only when there exists a possibility of more than one similar event happening. There must be at least two chances of an event occurring. This is reflected in the statement, "There are several possible Second Galactic Empires that may be formed in the period of time stretching from nine hundred to seventeen hundred years after the inception of the Plan, but only one of these is the Second Empire" (SF 116). Asimov is again strictly following the probability requisites, emphasizing that the new science of psychohistory is an approximation and not a certainty. Probability notions are everywhere. The new recruit to the Second Foundation is asked not to use expressions like 'never', and the expression is converted to a probability value. In the Foundation Trilogy, many aspirants aim at the "Imperial Purple" or the control of the Empire. But there shall be only one final Second Galactic Empire. Again we hear such expressions as: "The Kalganians don't fight, unless they have odds of five to one or better in their favour" (SF 203). Nothing is left to vagaries or chance, nothing remains unquantified.

A sense of preordainment possesses everything and everyone in the Foundation Trilogy. The Kalganians well perceive the fate surrounding them. Stettin's forces "go into battle fearing
defeat in some unknown way. The insubstantial fabric of the Plan hangs over them so that they are cautious..." (SF 210). After his overthrowal, a subdued Stettin continues to be the king of Kalgan, shorn of his ambitions, just as his predecessor, the Mule. The Second Foundation could protect itself because: "[i]t had means of protecting itself against inquiring minds" (SF 214). Whereas, the First Foundation is not so equipped, by its very design.

Dr. Darell would never want to believe that the Second Foundation existed, he calls it the ancient habit of attributing something incomprehensible to superhuman and such other anthropomorphic forces. Finally, he would say that the Second Foundation may have been a very necessary scarecrow, with a highly specific end in view. Stettin had used it on Kalganians to boost their morale earlier. The second foundationer, Pelleas Anther, now on Terminus, advances the argument on the secrecy of the Second Foundation: "Wherever they are, they form a tight oligarchy. They must be as well hidden as the world on which they exist..." (SF 220). Pelleas Anther is only concocting a story to misdirect the inquisitive Dr. Darell who is keen on finding the Second Foundation.

The stumbling blocks to the achievement of the goal are removed using behaviour modification techniques. The science of mind control had been an issue ever since the Mule came into the picture. Though the First Foundationers at this stage of development after 400 years are able to develop this science of the mind called encephalography, they could not develop it that far as to manipulate the human mind. But Hari Seldon, the
genius, had been able to. That makes Hari Seldon, a gifted person, just as much as leaders of the world known to us are. Hari Seldon going by this definition cannot be underestimated as an ordinary kind of man. Dr. Darell explains about this new emotional control:

It's been a popular subject with fiction writers ... the brain is a source of myriad, tiny electromagnetic fields .... Every fleeting emotion varies those fields in more or less intricate fashion ....

Now it is possible to conceive a mind which can sense these changing fields and even resonate with them....

Such a hypothetical Mind Reasoning Organ, by adjusting itself to the Fields emitted by other minds could perform what is popularly known as 'reading emotion', or even 'reading minds.' which is actually something even more subtle. It is but an easy step from that to imagine a similar organ which could actually force an adjustment on another mind. It could orient with its stronger Field the weaker one of another mind.... (SF 222-223)

This is Asimov's fictional way of demonstrating the notion of mind control, which he had endowed the Mule with, and had invested the Second Foundationers with. The prowess shown is not an alien phenomenon, for, "the potentialities of it are latent in the human mind" (SF 232). Dr. Darell not only understands the
concept of mind control, but he has been successful in deciphering strategies for hiding things. He knew that it is the old principle of the most obvious place being the least suspicious, recalling Noah's method of building the Ark in the open. This investigation of Dr. Darell makes him a formidable enemy of the Second Foundation. He feels that they must stop the Second Foundation from advancing further in its pursuits. Dr. Darell does discover that the Second Foundation must exist very much in the open. His anger towards the Second Foundation is clear in the verbal severity when he says: "We have been molested without pause, probably" (SF 227). Therefore, Dr. Darell's defense against such intrusion is to develop a device, a mind static device, to keep the Second Foundation away. Pelleas Anthor had been sent to find this out especially by the Second Foundation. Dr. Darell is allowed his opinion, and since he suspects Pelleas Anthor to be a Second Foundationer, it shall remain thus to satisfy the ego of Dr. Darell. He is made to outwit Pelleas Anthor. We the readers are given this truth not instantaneously, but much later. Dr. Darell, now a satisfied man, exults: "They [the Second Foundationers] had fallen, these invincibles, fallen, like book villains..." (SF 232). Nonetheless, Dr. Darell continues with his contribution to the furtherance of the Seldon Plan, never aware that he had been made to do so by the Second Foundation. Dr. Darell's questions are the questions of the self respecting masses amongst us, who think that we are a liberated lot, exercising our free will unchecked by any other force on earth. But the questions still remain unanswered, troubling our conscience, just as it does with the conscience of Dr. Darell: "When can a man know he is not a puppet?
How can a man know he is not a puppet?" (SF 232). This is the basis of Skinner's view, that we are in a controlled world, and have always been in a controlled world. If we are not in a position to know our status as regards our individuality it is because when one's mind is controlled, thoughts appear like intuition: "It might have been intuition -- and it might have been control" (SF 233). This ambivalence is felt both by Bayta of Foundation and Empire, the second book in the Foundation Trilogy and Arcadia of the Second Foundation, the third book of the Trilogy. Dr.Darell was reassured that nothing stood between the First Foundation and the Second Galactic Empire so that the First Foundation could continue to preserve its initiative to achieve the Second Galactic Empire, since, the First Foundation is, after all, one of the organs of the systemic strategy designed by Hari Seldon. But we the readers are aware all the time that Dr.Darell was given to a fallacy. "The Foundation - the First Foundation - now the only Foundation - was absolute master of the Galaxy" (SF 234). This was all that Dr.Darell wanted, and he shall have it by the ordainment of the Second Foundation. The manner in which the Mule, Ebling Mis, and Dr.Darell are handled fall into the pattern deciphered by Hassler. as stated earlier here. The pattern is a familiar one to Asimov who had tried it in his three laws of robotics. What holds good for the laws of robotics applies fittingly to the technique employed in the Trilogy.

The last chapter of the book Second Foundation is a squirming affirmation of faith in controlled cultures. Anyone given to cherishing free will as a god-given gift to man would revolt at the revelations made in unemotional terms by the First
Speaker. Free will is a mirage in modern societies. If one would want to believe in it, one could continue to do so just as the characters in the Foundation Trilogy are condescendingly permitted to hold their beliefs, unfounded as it is.

However, the last chapter in the Second Foundation, entitled 'The Answer that was True', is also the answer that is true of our cultures. This is the manner in which any systems planners would assess their success, with no trace of compunction whatsoever, for, a society, at this stage, given all these desires, modes and tools at our disposal, cannot but be a managed society. Moreover, the prime concern of these Seers is a humanitarian one. The promise of a better future must always be kept before our eyes whenever one is faced with questions of social morality and social ethics in the field of social engineering. The end justifies the means, and the end in the Foundation Trilogy is an end with which we all concur, a beneficial change.

Modern cultures, whether American, Russian, or Asian, cannot remain oatic if their cultures are to survive. A systematic attempt to spread these cultures alone can help these cultures viable. The just concluded cold war between America and the erstwhile Soviet Union also affirms the same. Any culture given to oatic tendencies is likely to be overridden by a more aggressive culture.

However, culture and civilization are considered in our discussion as cauldrons of order and peace necessary for furthering humanitarian ends, which is, the assurance of good for
all at all times.

With the last chapter of the book *Second Foundation* we have come to the beginning, the concept of a programmed civilization. In the first Chapter of the book *Foundation* Hari Seldon propounded a something we couldn't understand. But, when we reach the last, we have come to know the operation of a programme to renew a culture that had lost its inertia due to inevitable historical causes in history. Only, Asimov has added the novel concept of restoring knowledge also to such renewed cultures, since, as we have already noticed, knowledge is a cultural lynchpin, and a manifestation of effort. The feeling one gains while reading the last chapter of the book *Second Foundation* is one of comfort, a gestational comfort of the womb, in the hands of the able systems planners, armed with such tools as discussed earlier. The lessons are clearly demonstrated in the Foundation Trilogy as to who should be trusted, the elites, the Savants, the scientific shamans, for securing good to the society.

Having conquered the enemies to the founding of a Second Galactic Empire, the Second Foundation had one more objective to achieve in the remaining six centuries, that of creating a suitable milieu to accept psychologists in place of the current physical scientists to control the forces of change in society. This is Asimov's pet theme (which he grew tired of continuing beyond the 400th year after the Foundation Trilogy because he thought it a bother to inform his readers about the action that had gone before) and a proposition for the tomorrow's world to free itself from the wallowing effects of uncontrolled change. Earlier it was seen that the utopians paved a way for a smooth
world takeover. So does the Second Foundation, whose object is to prepare the necessary conditions in the world driven by physical forces, for the psychologists to take over the galaxy from the physical scientists, by now proved inefficient in controlling changes of social kind. Implied in the notions of the First Speaker is the belief that the world steeped in reliance on physical sciences is not suited to receive the much better branch of science, the mental sciences, a part of parasciences. This is a proven purpose of any utopian thinking we have analysed and understood over the ages. The Second Foundationers would only be kindling the latent talent in man as quoted earlier.

The work of the superordinate Second Foundation is not over yet. For, the Foundation Trilogy has so far demonstrated certain pitfalls in the course of realization of the Seldon Plan. Future course of history is sure to throw up many more surprises. The Second Foundation shall be always aware of this and is always ready to face it, only that, there shall be another set of selfless people to oversee the course of the Seldon Plan, the promise of which is implicit in the new additions to the group.

The Student, a new recruit to the Second Foundation, might one day by replacing Preem Palver become the First Speaker. Preem Palver says: "Then the course of history will proceed without deviation in the direction indicated by the Plan, 'unless,' ... further accidents, unforeseen and individual occur" (SF 236). Clearly, the dangers are expected to emanate not from groups, whose behaviour has been studied and patterned, and can be controlled, but from individuals, who could never be