

The Posthuman Trajectory of Isaac Asimov's *Foundation Universe*

Abstract

Although he privately identified as a humanist, Isaac Asimov's future history series *Foundation Universe* (1951 - 1993) is distinctly posthuman. Rhetorically and stylistically, the series utilises a number of repetitive components to ground its SF narratives within readers' cognitive frames of reference. The series therefore gestures towards the entirely commonplace manner with which we engage with technologies in contemporary societies, and correspondingly, uses the rhetorical strategy of novum decay to suggest that posthuman life will be profoundly everyday. The mundane and repetitive components present within the series, and their connotations, are exemplified via the textual analysis of nine novels from the series; *The Stars Like Dust* (1951), *Foundation* (1951), *The Currents of Space* (1952), *Foundation and Empire* (1952), *Second Foundation* (1953), *Foundation's Edge* (1982), *Foundation and Earth* (1986), *Prelude to Foundation* (1988), and *Forward the Foundation* (1993).

Keywords: Isaac Asimov, Foundation series, critical posthumanism, novum decay.

1. Introduction

When Isaac Asimov began to expand the fictional universe of his acclaimed Foundation Trilogy in 1982—almost thirty years after the publication of its prior entry, *Second Foundation* (1983)—he did so with the express intention of assimilating its continuity into a unified “history of the future” with his Robot and Galactic Empire series (*Prelude ix*). He proceeded to write further novels within this metaserie for the remainder of his life. By the point of his untimely death in 1992,

Asimov had greatly expanded this unified future history series, which he referred to tangentially, as “the Foundation Universe” (*Edge* 415).¹ Although *Foundation Universe* has received little critical attention to date as a unified series, analysis of it cumulatively reveals its significantly mundane and repetitive aspects. Demonstrably, the rhetorical function of such banal components renders the series conspicuously posthuman.

In the seminal *Metamorphoses of Science Fiction* (1979), Darko Suvin theorizes that SF texts are fundamentally defined by their capacity to produce cognition of the unknown through the deployment of estranging nova. Suvin proposes that the novum is “always codetermined by the unique”, enabling it to delimit “relations basically new and unknown in the author’s environment”, and accordingly extrapolates that the SF genre has an implicitly teleological character (Suvin: 64). In sharp contrast, representations of the mundane aspects of our contemporary lives are just as prominent as nova in *Foundation Universe*, and the generative interplay between mundanity and novelty in the series therefore challenges the figure of the novum itself.

Demonstrably, the entropic tendency of nova to decay in imaginative potency comprises a process which can be termed novum decay. Accordingly, the presence of both novum decay and quotidian components in *Foundation Universe* confirms the capacity of the minds of contemporary readers to transcend enclosure by the presumptive contemporary boundaries of “humanness”. Via the prominent depiction of mundane and repetitive components within *Foundation Universe*, I propose, Asimov proposes that our species has already become posthuman, as a result of our habitualisation to the novel technologies which surround us on a daily basis.

¹ For ease of reference, and in lieu of any official title, I shall refer to the series as *Foundation Universe* throughout this article. Donald E. Palumbo designates the series significantly less elegantly, as the Robot/Empire/Foundation Metaseries.

It may ostensibly appear problematic to assert that Asimov's SF is posthuman—especially since Asimov himself was an ardent humanist (*I. Asimov* 500). As Joseph F. Patrouch, Jr. argues, texts of the SF genre take us out of our “specific body, place and time [and] lets us live other lives, not mere duplicates of our own, but as completely different as the human imagination can make them” (xxiv). Asimov's galaxy-spanning *Foundation Universe* series is worth considering in these terms, since it became the blueprint for the epic futuristic milieux and expansionist narratives which were “to become a staple of modern SF” (Landon 59). As this article demonstrates, however, the “consciousness-expanding” aspect of Asimov's SF is cognitively grounded via the reinscription of aspects of the reader's mundane lifeworld into its Science Fictional (SFnal) one (Patrouch Jr. xxiv). Mundane schemata and phenomena are not only prominent within *Foundation Universe*, but rather, comprise an essential component of its posthuman objective.

Accordingly, as Donald E. Palumbo adroitly demonstrates, throughout *Foundation Universe* “the fractal reiteration of its structures, plots, themes, and motifs—in its overall architecture and fundamental concepts, as well as both across and within its component volumes—demonstrates that the metaseries's universe is constructed as a dynamical system”, whose nested infrastructure corresponds to the principle of fractal geometry (“Chaos-Theory” 64). The cyclicity to the events experienced by characters at a micro level, as a result of the reiterative plot structures shared by its narratives, confirms the dictates of psychohistory at a macro level, proving that—as in fractal geometry—what is true on a smaller scale is also true on a larger scale. In the fractal schema which results, the intertextual repetition of plotlines throughout the series becomes a substantial component of its SFnal schema.

Resultantly, whilst Patricia Kerslake's recognition that mundane components play a pivotal role within *Foundation Universe* is shrewd, their emphasis that its recurrent emphasis upon "the average and the commonplace" is predominantly a narrative device used by Asimov to justify the humanist and colonialist facets of the series is patently unjustifiable (123). As this article will demonstrate, the latter portion of *Foundation Universe* succeeds, to a large extent, in distancing itself from the totalising philosophies common to humanist endeavours, in particular, by mediating its ostensibly colonialist and expansionist schema through an intractably repetitive paradigm. Accordingly, this article begins by thematically explicating a number of the series' overarching recursive elements, and then proceeds to provide close analyses of numerous novels set during the Galactic Empire and Foundation eras of *Foundation Universe*.

2. Anthropocentric delusions

By the timeframe of *Foundation's Edge*, the once-monumental Seldon Crises have become little more than "a strong and desirable custom" to the posthumans of the First Foundation (*Edge* 7). The serialised Crises that once loomed large as existential dilemmas have now, through rote repetition, become merely policy issues to be deliberated, then cast aside "without further discussion" once concluded (*Edge* 7). Each Seldon Crisis is now perceived to be thoroughly banal, comprising no more than a matter of bureaucracy, since most of the First Foundation has become complacent that their judgements will prove correct according to psychohistory in all eventualities. Yet, as it transpires, their belief that they control the course of posthuman development is in any case an anthropocentric delusion. Nevertheless, Golan Trevize and members of the Second Foundation separately come to the perceptive conclusion that "the flaw in the Seldon Plan was its flawlessness", and

both parties accordingly intuit that there must be a controlling influence separate from themselves pulling the strings of psychohistory, of whose existence they have—until now—remained ignorant (*Edge* 95).

As the robot Daneel eventually reveals to Trevize in *Foundation and Earth* (1986), for the last twenty millennia he has been one of the principal constituents of a largely decentralised concatenation, engaged in the task of manipulating the agency of members of the Foundation via psychic means. Daneel and his fellow robots have therefore been masterminding galactic history over this period of time—throughout all the *Galactic Empire* and *Foundation* novels—but now believe that the time has come to abandon psychohistory, and instead implement Gaia/Galaxia as the telos of galactic posthuman civilisation. This unforeseen revelation enacts a fractal repetition of the First and Second Foundations' separate beliefs that they have been controlling the future of posthuman civilisation telepathically through psychohistory, and proves their complacency to have been an anthropocentric delusion.

Within this supervisory concatenation, the agency of the First Foundation is enclosed within that of the Second Foundation, whose agency is in turn enclosed by Gaia, and so forth, generating a nested structure characteristic of Asimov's "disguise-within-a-disguise motif [which] replicates in itself the fractal's characteristic self-similarity on descending scales" (Palumbo, *Chaos Theory* 63). Collectively, Daneel and Gaia explicate the majority of the levels of this fractal mechanism of control to Trevize and his crew:

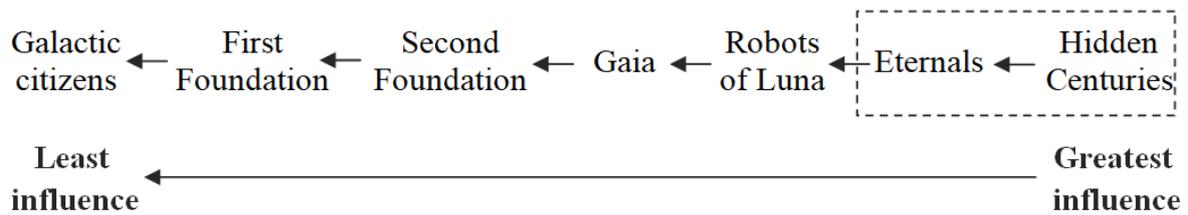


Figure 1 - Relevant galactic entities, ordered by degree of control over posthuman agency

Crucially, this nested concatenation of cognitive entities guides the events which occur during the entire latter portion of *Foundation Universe*.

Prior to its assimilation into *Foundation Universe*, Sam Moskowitz had made the assertion that the *Foundation trilogy* “was the first time that any author had the effrontery to insist that *all* the myriad worlds of the galactic cluster would be colonized and dominated by a single species—man!” (260). Whilst Moskowitz’s astute claim was originally correct, it is now plainly invalidated by Asimov’s revisionist writing of robots into the *Foundation* novels—by his decision to institute them as the ultimate agents of the extant galaxy. As this dissonance about Moskowitz’s claim implies, Asimov’s revisionist moves in the latter-published novels of *Foundation Universe* function to appreciably de-anthropocentrise the series.

3. Cognitive Assemblages

Patricia S. Warrick’s suggestion that we should regard Asimov’s “robots as a metaphor for all the automated electronic technology—in a variety of forms—that will replace most of man’s physical and routine mental work in the future” therefore becomes newly pertinent in the context of Asimov’s inauguration of the metaseries (178). If robots do act as a metaphor, then given their changed context in *Foundation*

Universe, they comprise a metaphor for the outsourcing of cognitive agency to technologies in the everyday posthuman lifeworld. From this perspective, *Foundation Universe* on aggregate proposes that the figure of the human is being subsumed by our outsourcing of cognition to our increasingly complex technological creations. Although they are evidently explicitly posthuman as novel technological creations, the centralising role that robots inhabit within *Foundation Universe* is also profoundly posthuman in this metaphorical sense.

Warrick's contention can best be rethought in relation to Hayles' discourse on the totalising importance of complexly decentralised cognitive assemblages within our contemporary lifeworlds. Hayles asserts that:

the systems making up a cognitive assemblage form connections, create linkages between disparate phenomena, facilitate or block information flows between sites, make choices at multiple levels of human and technical cognitions, and morph as the assemblage gains or loses parts (178).

In this light, the fractal resonances of the concatenation of psychic influence which guides the latter portion of *Foundation Universe* (see Figure 1) can be determined as an extended metaphor for the decisive extent to which “*multi-level systems represent externalizations of human cognitive processes*” through cognitive assemblages (Hayles 25). Exactly like each successive psychic entity in *Foundation Universe* does, cognitive assemblages “have cumulative (and expanding) effects that significantly affect human social behaviours and unconscious actions” (Hayles 35). Furthermore, their influence on our cognition is likewise not manipulable by individual posthumans, as a result of their decentralised complexity within interconnected systems. It proves conducive to trace the fractal resonances of this metaphor of cognitive assemblages back through *Foundation Universe*.

As *Foundation and Empire* (1952) ventures, posthumans are akin to “robot[s] following a predetermined course”, rendered absent of any genuine agency, and entirely subject to forces beyond their own control as a result of the fractal concatenation explicated above (*Foundation and Empire* 22). Given that posthumans are cognitively controlled *by* robots, the controlling superstructure of galactic civilisation additionally proves posthumans significantly robotic themselves. This fractal tautology is suggestive of the intractable and pervasive influence that modern technological creations continue to bear upon the course of our species’ history, regardless of whether we consciously perceive their influence or not. As this narrative thread affirms, the only possible manner by which the posthumans of the galaxy can realise Galaxia is by sacrificing a significant measure of their sociological agency under the cognitive influence of robots. The robotic control of posthuman development is therefore analogous to the cognitive assemblages of our own everyday lifeworlds, whose technologies have already become so ubiquitous as to be almost indispensable to the survival of *homo sapiens*.

Within the diegetic world of Asimov’s series, psychohistory itself figures as such a cognitive assemblage—its mathematical derivation emphasising that the supposed agency of posthumans is always undermined by probabilistic factors. Indeed, psychohistory “is based, not on individual heroism ... but on the social and economic trends of history”, and it therefore remains a distant and tediously objective historical force from the perspectival outlook of individual posthumans (*Foundation and Empire* 100). Although the opening of the Time Vault was an intensely novel occurrence only generations earlier, for the two Seldon Crises prior to the ascendance of the Mule, the projection of Hari Seldon “was ignored” entirely (*Foundation and Empire* 125). This novum decay of Seldon Crises indicates that the members of the First Foundation have, by this point, become entirely accustomed to

psychohistory's assurance of their survivability. As such, they have become habituated to their situation within a complex cognitive system whose means of manipulation are beyond their faculty to influence, much as we ourselves in our contemporary world are entirely accustomed to the underpinning of our day-to-day lifeworlds by technologically-mediated cognitive assemblages.

Similarly, whereas humanoid robots have disappeared from view within posthuman society on a galactic scale by the timeframe of the *Foundation* novels, *Forward the Foundation* (1993) demonstrates that robotic devices nonetheless remain ubiquitous. When Seldon visits Emperor Cleon I, he witnesses “the table set itself and dishes beg[i]n to appear”, yet he does not consider this phenomenon significant enough to remark upon it (*Forward* 79). Likewise, in *Foundation's Edge*, Trevize and Pelorat make use of “a self-moving table” that moves over to them and waits imperturbably whilst they deposit “their dishes and cutlery upon it” (*Edge* 220). As these passages from disparate chronological points in *Foundation Universe* imply, even thousands of years after the departure of humanoid robots, robotic devices are still tasked with undertaking the drudgery of the posthuman quotidian lifeworld in our place. Whilst the majority of extant robots are now purely items of furniture, commensurate background noise, as it were, the less tangible—but far greater—influence that Daneel and his cognitive robots continue to bear is the most vital part of the melody of galactic civilisation.

Asimov's major triumph, according to Donald A. Wollheim, was that he “brought to the attention of the science-fiction cosmos the fact that humanity follows patterns ... that the rise of civilization follows a spiral that makes certain events seem to recur predictably” (38). As I have begun to demonstrate, however, Asimov's fictional replication of the fractal patterns of history is implicated within the recursive schema of *Foundation Universe* quite significantly. As such, Asimov

demonstrates that other aspects of the galaxy are also repetitive or mundane under the programmatic dictates of psychohistory. In *Forward the Foundation*, whilst perfecting the mathematics of psychohistory, Seldon worries whether by managing “to prevent the Fall or, more likely, force a recovery after the Fall, [he is] merely [ensuring] another period of” decline will inevitably follow (*Forward* 122). Even as he institutes psychohistory, he recognises that there is a cyclicity to Galactic Empire; the Empire which psychohistory is set to create will, in time, fall too.

4. The Galactic Empire Trilogy

Hence, although *Foundation Universe* plainly formulates a detailed “future history of galactic civilization”, its objective in narrating the rise and fall of that first Galactic Empire is nowhere near as straightforwardly eschatological as it ostensibly appears (Hassler 75). This is particularly apparent throughout the *Galactic Empire trilogy*—the earliest point in *Foundation Universe*’s narrative wherein the Galactic Empire that forms its focal point has been established. The narrative of *The Currents of Space* (1952), for instance, opens with a description of a “feeder”, which is “a spoon-like affair, with sharp edges and little tines projecting from the front curve of the bowl”; a design which allows that one cutlery utensil to “cut, scoop and impale” as its operator desires (*The Currents of Space* 15). Asimov hereby utilises the neologism “feeder” to describe a spork in a defamiliarising manner, as though it is a novum, despite sporks being an entirely unremarkable item of technology in our own world.² This early passage establishes *The Currents of Space*’s pointed and recurrent emphasis upon the conspicuously banal elements of its SFnal setting, in spite of its chronological position within the era of the purportedly superlative Galactic Empire.

² Spork patents were first issued in 1874, and the ingestive technology therefore predates Asimov’s novel by almost eight decades.

Analogously, the natives of Florinia inhabit single room huts, which typically contain only “a bed, a chest of drawers, two chairs, a smooth poured-cement floor, a closet in one corner”, and stand amongst a multitude of “the monotonous rows of workers’ cubicles” which constitute the planet’s population centres (*The Currents of Space* 35; 17). The aching pedestrian character of their lifeworlds, it transpires, is premeditated; the Florinians are subjugated via the imposition of a thoroughly de-technologised sociocultural environment by the colonial occupiers of their world—the Squires of Sark. Until the end of the novel, the protagonist Valona has never experienced water running from “out of a hole in a pipe”, and accordingly, the archaic principle of plumbing is a startling novum to her, the stuff of “wonder” (*The Currents of Space* 208). As is patent from even a cursory reading of this novel, in *Foundation Universe* “Asimov is not attempting to describe a political utopia. His novels do not advocate corrupt empires, but instead retell history in the projected future” (Wilcox 59). As is evidenced via *The Currents of Space*’s setting, Asimov works to problematise the purported splendour of the Galactic Empire at its chronological introduction into the narrative of his future history. By depicting the exceptionally pedestrian material conditions of the colonised Florinians in detail, he derides the predominant colonial aspect of the posthuman impetus to colonise the galaxy.

As a direct result of the unalleviated boredom resulting from his menial labour, a Florinian officer erroneously lets Rik and Valona board a spaceship leaving Florinia. Acutely “eager” to find out more about the day’s entirely unprecedented incident of “patrollers being killed”, he gives the couple no more than “a glance” in passing, and resultantly neglects to check their identities adequately (*The Currents of Space* 107; 91; 91). Furthermore, Rik and Valona only then succeed in boarding the ship because it has been left open “before flight to get rid of the accumulated odor of

canned oxygen, used and reused” (*The Currents of Space* 92). Similarly, the Sarkian Patrollers based on Florinia have grown so accustomed to peaceable conditions that they are too complacent to defeat a Florinian armed with only a “plastic two-by-four” when their services are suddenly called upon (*The Currents of Space* 105). Lapses in concentration resulting from the otherwise phenomenally monotonous quality of a handful of characters’ labour thereby directly facilitate the text’s SFnal events, producing a causal feedback loop wherein the text’s banal elements provoke its novel elements, and *vice versa*; a conspicuous component of its overarching SFnal schema.

The stark social divides inherent to Florinia are made especially palpable when one of the Great Squires of Fife absentmindedly uses “a soft square of kyrt to mop the dampness out of the creases between the folds of fat” hanging from his face (*The Currents of Space* 117). For Sarkians, kyrt is an entirely everyday material and therefore not a novum whatsoever. Nevertheless, even that one small portion of kyrt—in the cruelly hierarchised social system they have constructed—is held to have more economic value than the lives of thousands of Florinians combined. As is true in this instance, Asimov’s “Galactic Empire novels echo strongly the history of Roman domination of Israel”, besides other colonial regimes, and thereby position the Galactic Empire as a tyrannical organisation, as opposed to a virtuous one (Wilcox 57). Asimov consequently emphasises that the technological developments responsible for the ascendancy of the Galactic Empire have been intractably facilitated by the exploitation of populations of posthumans on an interplanetary scale.

Hence, in the *Galactic Empire trilogy* Asimov enumerates the inequalities produced by technologically-oriented societies. Technologies which facilitate intergalactic travel have, by this point, become banal enough nova to be appropriated as a casual form of sporting equipment by Sarkians. Although they remain an

essential mode of conveyance between planets, such technologies are now also regularly utilised for the purpose of inter-planetary races. The “Sark-Florina run”, for instance, is possible in a little “over nine hours” (*The Currents of Space* 170; 174). For pilots competing for such “record” times, the interstellar conveyance aspect of Jump technologies is plainly irrelevant, demonstrating the utterly ubiquitous mundanity of such technologies from the perspective of aristocratic galactic travellers (*The Currents of Space* 174). In the timeframe of *Foundation’s Edge* (1982), an analogous competitive practice termed “hyperrac[ing]” remains in vogue (*Foundation’s Edge* 53).

Meanwhile, in *The Stars Like Dust* (1951), Tyrannian ships are uniformly engineered to “make any number of Jumps quite automatically” without posthuman input, and it is specified that it was this advance towards the further habitualisation of interstellar Jump technologies which “won their wars for them”, and so expedited the establishment of the Galactic Empire (*The Stars, Like Dust* 108; 109). Nevertheless, it takes the Nepheliosian Biron Farrill “six hours” to calculate the trajectory of a Jump in a lesser spacecraft (*The Stars, Like Dust* 118). By emphasising the inequitable character of technological distribution in the *Galactic Empire* trilogy, Asimov makes apparent the gross extent to which the formation of the vaunted Galactic Empire resulted from rampant inequalities. The Galactic Empire, it transpires, was brought about by a colonialist regime which weaponised its technological superiority to suppress the agency of colossal numbers of posthumans. Accordingly, readers of *Foundation Universe* can far more accurately perceive the nefarious character of the Galactic Empire than those characters who populate the *Foundation* novels, which are set thousands of years later.

5. The Foundation Trilogy

Although they do not realise it themselves, the plethora of well-intentioned proponents of the restoration of Galactic Empire—such as Seldon and Bayta Darell—unwittingly romanticise, and long for a return to their species’ past, purely as a result of their lack of knowledge of its shortcomings. Seldon’s deployment of psychohistory to restore an insidious interplanetary colonialist enterprise is resultantly deeply misguided, and the mutual ignorance of the two Foundations in championing the scheme allegorises oft-repeated failures to manifest egalitarian societies throughout our own history. As the guiding psychic role of Daneel’s robots emphasises, however, Asimov contests the posthuman ignorance which guides psychohistory, by ensuring that the robots’ have a far more comprehensive knowledge of galactic history than their purported masters do. By this move, Asimov posits that an understanding of the past is a far more effective means of informing the actions of our species, and avoiding repeating the mistakes of history, than the future-oriented mathematics of psychohistory alone could ever be.

The texts of the Foundation trilogy are circumscribed at all times by Seldon Crises, and so the recursivity of history under the Seldon Plan is fractally embedded in the repetitive narrative schema of those three novels. Just as generations of the Foundations’ posthumans are fated to be subjected to Seldon Crises, so will colonial history repeat on aggregate whilst they continue to obey the dictates of psychohistory. The trilogy’s recursive fundament is further exacerbated by its literary style, which imports, according to Charles Elkins, “the banal, pseudo-factual style of the mass-circulation magazines—into a world twelve thousand years into the future, with no change at all” (27). Viewed through the lens of Elkins’ insightful contention, the literal-minded and declarative composition of the trilogy becomes a stylistic reaffirmation of the inimical changelessness of posthuman civilization which

psychohistory is fated to perpetuate in an iterative manner by reinstating Galactic Empire.

At the outset of *Foundation* (1951), although Gaal Dornick “steel[s] himself just a little” for his first Jump, it disappointingly results in “nothing more than a trifling jar, a little internal kick which ceased an instant before he could be sure he had felt it” (*Foundation* 4). Later in the same journey, he briefly glimpses the “cold, blue-white smoke of a gaseous nebula within five light years of the ship, spreading over the window like distant milk, filling the room with an icy tinge, and disappearing out of sight two hours later, after another Jump” (*Foundation* 5). The elegiac rarity of the description of the nebula in this early chapter is suggestive of Asimov’s stylistic objective in the trilogy.

The latter moment of vicarious atavism encompasses a summary departure from the trilogy’s typical style, establishing an unprecedented poetic discourse briefly, and transiently; like the briefly glimpsed nebula itself, the evocative quality of the passage is soon lost from view in the novel’s rear-view mirror. As this passage accentuates, the otherwise distinctly banal style of the trilogy contributes to its posthuman objective by accustoming readers to its diegesis in stylistic as well as narrative terms. The declarative aesthetic throughout is an anchor into their own mundane reality for the intended reader, a rhetorical component by which they are accustomed vicariously to the lassitude of life lived in a period of galactic history overshadowed by the oscillating feedback loop of “rebellion and ruin, ruin and rebellion” (*Foundation* 194).

Correspondingly, cyclicity comprises an important motif throughout the trilogy. By the end of *Second Foundation*, “for the first time in nearly half a century, the Foundation [is] again at war” (*Second Foundation* 178). Asimov’s emphasis upon the inevitability of the recursive course of the galaxy is stark; within the sequence of

events predicted by psychohistory, catastrophic wars are as just as inevitable as peace. Even in the sole instance where both the First and Second Foundations appear to be faced with “an irreversible breakdown of the plan”, due to the Mule’s mental powers, their confidence that “The Foundation has always been defeated at first and has always won in the end” is eventually re-proven (*Second Foundation* 19; 198). The trilogy’s schema imparts that same erroneously complacent confidence to its readers, its sectionalisation into discrete Seldon Crises subtly interpellating them to vicariously conceive the ostensible naturalness of psychohistory’s causal course towards the return of Galactic Empire.

6. Prelude to Foundation

Although its telos is greatly problematic, Seldon’s psychohistory is almost entirely successful in functional terms—as a result of its derivation from a pluralistic model. Seldon begins to formulate the interplanetary mathematics of psychohistory over the course of *Prelude to Foundation* (1988), initially by gaining a specialised understanding of a variety of posthuman societies on multiple planets, in order that he is eventually able to predict the course of development of “the mighty Galactic Empire in every one of all its activities” (*Prelude* 184). By the end of the novel, however, he realises that he can better formulate psychohistory by taking the numerous heterogeneous societies extant upon one planet—Trantor—as a fractal base from which to extrapolate the rules which condition posthuman behaviour in “all the rest” of the galaxy, as Trantor is, in itself, “a complex of worlds” (*Prelude* 266; 384).³ Seldon therefore comes to realise the value of pluralistic understandings of

³ The Eurocentrist notion underpinning Asimov’s assertion that all the cultures of the galaxy can be entirely extrapolated from a Trantorian basis is nevertheless deeply problematic from a Postcolonial perspective.

the diversity our species, and accordingly, the achievement of psychohistory is made fractal in a twofold sense.

Seldon's establishment of psychohistory as a pluralistic, rather than a culturally deterministic, project particularly resonates with Hegel's image of the potency of "the point of singular individuality in the medium of subsistence radiating forth into plurality" (Hegel 69). In a Hegelian vein, Seldon combines a veritable plethora of cultural perspectives in dialogue to foster a more wholesome human project since heterogeneous cultures are not mutually exclusive, but capable of recombinant augmentation. Psychohistory recognises that "within itself the universal is in undivided unity", and hence fosters a creative synthesis which reveals the expediently diverse nature of our species via its rendering of posthumanity in plural terms which acknowledge a wide range of phenomenological truth, and synthesise cultural diversity (Hegel 81).

As noted above, the foremost shortcoming of psychohistory is the misguided telos of its totalising probabilistic forecast, which leads the posthumans of the galaxy inexorably towards a repetition of the colonial atrocities of Galactic Empire. As mentioned above, however, the overarching robotic fractal system embedded throughout the latter portion of *Foundation Universe* eventually redresses the otherwise egregious misjudgement which underlies psychohistory.

7. The Gaia Duology

As throughout *Foundation Universe*, in the Gaia Duology Asimov continues to make abundantly clear that the posthumans of the series find hyperspatial travel in particular immensely banal. *Foundation's Edge* specifies that olfactory perception ensures that "*nobody* ever likes the smell of any world when he first lands on it [but] after a while, you learn to disregard it. The worst of it is returning home, in fact"

(*Edge* 202). Correspondingly, after the crew of the newly-developed cruiser *Far Star* land on Solaria in *Foundation and Earth*, Pelorat remarks on the “delightful” smell of the planet (*Earth* 208). Trevize does not get excited, however, since he reasons that in less than an hour “our nasal receptors will be sufficiently saturated, for us to smell nothing” (*Earth* 208). His cynicism proves correct—no further olfactory appraisal is made of Solaria whilst the crew remain on the planet.

Asimov therefore establishes that although there is intractable novelty in the act of visiting planets across the galaxy, the unique alien perceptions which accompany the completed journey are anesthetized by the omnipresent cognitive process of habituation. By extension, via the principle of synecdoche, interplanetary travel is also desensitized; both diegetically, and vicariously for readers. The *Far Star* itself is likewise utilised towards a similar end throughout the Gaia Duology—figuring as a particularly conspicuous site of novum decay.

Atypically for a novum introduced in the *Foundation* novels, Asimov evokes the technological novelty of the *Far Star* in rigorous detail throughout *Foundation's Edge*, and explicitly specifies that, initially, no aspect of “his mission could have impressed Trevize more than the ship with which he was asked to perform it” (*Edge* 58). The ship’s gravitic engines make “use of the fundamental energy store of the universe” so that it never needs to be refuelled; it can perform hyperspatial Jumps autonomously; and it carries the “spatial co-ordinates of every star” in the inhabited galaxy in its navigation systems—it is the peak of technological innovation on Terminus (*Edge* 61; 71). The *Far Star* originally seems so transcendental an object to Trevize that he has to be reminded that he “will have to get on”; he has become too preoccupied merely standing marvelling at it (*Edge* 59). From the inside too, it appears “ingenious”, and its bedrooms are even differentiated sufficiently that its compact living space does not appear monotonous (*Edge* 60).

Two days later, Trevize and Pelorat have started to feel “quite comfortable” onboard the ship, and are enough at leisure to be left facing “a rather boring stretch of time”, since their passage through space proceeds without need for them to provide any form of controlling input (*Edge* 97; 105). Trevize finds he can interface with the ship “more easily day by day”, but remains amazed at its capabilities, such as its ability to complete a hyperspatial journey that would typically take weeks “in half an hour” (*Edge* 155; 163). The lack of necessity for Trevize and Pelorat to actually pilot the craft is symptomatic of the inseparability of technological systems and posthumans in readers’ everyday lives; of the increasingly outsourced manner of posthuman cognition as we gradually assimilate “this technical cognition into [our] daily lives” (Hayles 125). By the end of *Foundation’s Edge*, Trevize is “even nonchalant to doze in his padded chair” whilst Pelorat is shaving, and as the *Far Star* orbits a potentially hostile planet (*Edge* 299). Both characters have demonstrably already become habituated to the highly novel qualities of the ship by this point. Yet, it is in the ensuing *Foundation and Earth* that the complete novum decay of the craft occurs.

Trevize and Pelorat are accompanied on their subsequent voyage on the *Far Star* by Pelorat’s Gaian lover Blissenobiarella, and later, abduct the Solarian child Fallom. Given the awkwardly close proximity within which they must reside whilst onboard, the four characters’ phenomenological attitudes towards the *Far Star* become decreasingly novel, and increasingly banal. At the novel’s outset, Trevize is acutely aware that Pelorat and Blissenobiarella are in the throes of passion, but does not want “to be forced to participate in [their] activities even indirectly”, as a result of the thin partition between the ship’s two bedrooms (*Earth* 31). Whilst the couple cloyingly express their adulation for each other, Trevize attempts to begin the landing process to Comporellon sagely, “with a look of strained tolerance on his face”

(*Earth* 70). By the time they reach the planet's atmosphere, however, Pelorat is complaining about having missed the approach because he "got caught up in listening to" Trevize and Blissenobiarella bickering (*Earth* 73). As in this instance, for its crew and readers alike, the familial dynamic aboard the *Far Star* encompasses a banal distraction from its novel qualities, and the spectacles of its interstellar flight.

Likewise, it is essential for the crew to conserve the ship's supplies since—once all four of them are on board—they significantly exceed the ideal carrying capacity of the *Far Star*. They subsequently experience firsthand the profound extent to which technological cognitive assemblages such as the *Far Star* "regulate our actions in unconscious and nonconscious ways through routine anticipations, habitual responses", and equivalent mundane tropisms (Hayles 119). In the ship's shower, the crew must learn to "scrape off the suds rather than rinse them off" to conserve water, and "their excreta [are] thoroughly recycled"; becoming fertiliser that is used to grow their onboard food products (*Earth* 268; 68). Additionally, the entire interior of the craft is so "cramped for room" that no member of the crew has sufficient space or privacy, and certainly cannot afford to anger their crewmates (*Earth* 137). As a result, the lackadaisical lives which Trevize and Pelorat had been living onboard the ship in *Foundation's Edge* are firmly disrupted, and daily life on the *Far Star* resultantly becomes a considerable chore—as they must now perform every quotidian activity with scrupulous care.

Besides also having to learn to subsist on "a pretty monotonous diet", Trevize becomes frustrated by Fallom's presence and impetuosity (*Earth* 267). Although Blissenobiarella attempts to convince him that he should "perform parental functions" to help accustom Fallom to its close proximity with other posthumans, Trevize cannot bring himself to do so (*Earth* 270). Blissenobiarella consequently becomes Fallom's mother figure, and assumes the responsibility for keeping it from

inadvertently “tamper[ing] with the ship” (*Earth* 345). On the numerous occasions that she fails, Trevize advises Blissenobiarella to keep the child “in handcuffs”, and repeatedly orders Fallom to leave the pilot-room in anger (*Earth* 342). The addition of Fallom to the ship’s crew increases the material tensions onboard ship to the point of crisis, and the resultant arguments significantly impede upon the crew’s SFnal mission.

Foundation and Earth’s increasingly banal and familial, and decreasingly SFnal, scenes on-board the *Far Star* shrewdly emblematises the tendency of posthumans in the Foundation to become habitualised to highly reified technologies. Accordingly, its crew’s habitualisation towards the *Far Star*—via that craft’s commensurate novum decay—is synecdochic of their position on aggregate within a highly technologized lifeworld. The *Far Star* therefore comprises a miniaturised, fractal, representation of the larger cognitive assemblages the series is concerned with elsewhere. Finally then, at the chronological conclusion of *Foundation Universe*, the increasingly autonomous quality of the galaxy’s cognitive technologies strongly epitomises the situation of our own world, in which cognitive assemblages have unilaterally become “the means by which power is created, extended, modified, and exercised in technologically developed societies” (Hayles 116).

8. Conclusion

As Asimov himself asserted, “Science fiction writers and readers didn’t put a man on the moon ... but they created a climate of opinion in which the goal of putting a man on the moon became acceptable” (Gunn, “Asimov at 100” 21). Crucially then, the prognostic influence which Asimov’s SF has borne upon the present in which we are now living is grounded throughout *Foundation Universe*; in a mundane paradigm, which renders its import characteristically posthuman. Similarly, as a result of the

series' immense influence on the SF genre, "many later science-fiction stories have been built upon the 'central myth'" which comprises its future history aspect (Gunn, *Isaac Asimov* 40). Thus, "because science fiction builds upon science fiction ... the rise, reign, and fall of a galactic empire is now taken for granted in many millennia-spanning novels to come after", and resultantly, the SF genre as a whole has become even more recursive via its tendency to imitate *Foundation Universe* (Wollheim 41).

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