Reading by Starlight

Postmodern Science Fiction

Damien Broderick

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Science fiction's impact on popular culture has been striking. Yet sf's imaginative texts often baffle or dismay readers trained to enjoy only the literary or 'canonical'.

Reading by Starlight explores those characteristics in the writing, marketing and reception of science fiction which distinguish it as a mode. Damien Broderick analyses the postmodern self-referentiality of science fiction narrative, its intricate coded language and discursive 'encyclopaedia'. He shows how, for rich understanding, sf readers must learn the codes and vernacular of these imaginary worlds, while absorbing the 'lived-in futures' generated by the overlapping intertexts of many sf writers.

Reading by Starlight includes close readings of cyberpunk and other postmodern texts, and writings by such sf novelists and theorists as Brian Aldiss, Isaac Asimov, Christine Brooke-Rose, Arthur C.Clarke, Samuel R.Delany, William Gibson, Fredric Jameson, Kim Stanley Robinson, Vivian Sobchack, Darko Suvin, Michael Swanwick, Tzvetan Todorov and John Varley.

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Damien Broderick

For Jenny Blackford
and Russell Blackford

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ACKNOWLEDGEMENTS

INTRODUCTION

At this pivot of the millennium, the high-energy, information-rich nations share a unique epistemic crisis. (I use the term *episteme* here as shorthand for a complex of discursive templates active within a given space and epoch.)[1] How could it be otherwise? Our social being is founded in rapid, virtually uncontrollable cognitive change, driven principally by science and technology. The map of myth is lost to us. Notoriously, the core of twentieth-century sensibility has been convulsed by a paradox of semiotics: an explicit and bitter conflict in those vast circulating discourses (often in covert mutual synergy), the humanities and the exact sciences: the so-called 'two cultures'.

Lofty though they are, such generalities can hardly be dodged when one tries to uncover the codes and strategies of science fiction. Whether it is viewed as a genre or a mode (even a fresh paraliterature entirely), its very name, for all its acquired taint of comical vulgarity, evokes that central paradox of mutual incomprehension. A theorised interest in sf endures precisely because of the unease with which science fiction poises its narrative modality (or perhaps several such modalities sharing a family resemblance) between *artistic* attention to the *subject* and *scientific* attention to the *object*.

Can such extravagant ambition pay off? In some measure, certainly; and by intriguing means. I shall show just how these narratives are generated and received (which implies considerably more than 'written' and 'read') within a specialised intertextual encyclopaedia of tropes and enabling devices, an armamentarium evolved within that specific history of discursive crisis.

Extraordinarily enough, given recent academic enthusiasm for popular culture, careful study of speculative fiction is still deemed a fairly dubious enterprise. True, both literary and scientific meta-theorists have come increasingly to view their objects of study as principally *textual,* as *narratives* which operate within social formations via processes of canonisation and negotiation. Somehow, though, sf largely remains excluded from the regard of specialists in both science and literature.

Why should this be so? Do its characteristic strategies guarantee that sf s products must be *bad art?* Must its early sources in wish-fulfilment oblige it to be *false science*? All too often, the answers to both questions have to be yes. Sf is a paraliterary form of narrative nearer in many respects to the mimetically estranged experience of dreaming than to the methodologically speculative or cognitive.

Several of these unwieldy but useful terms find their major sf-theoretic locus in the pioneering writings of Darko Suvin. In his *Metamorphoses of Science Fiction,*[2] Suvin proposed that sf is an ensemble of fiction tales marked by *cognition* and *estrangement* (Suvin, 1979, p. viii), a provocative definition to which I shall return. Suvin—followed in this by Samuel R. Delany and others—refers to sf as a

> paraliterature—the popular, 'low', or plebeian literary production of various times, particularly since the Industrial Revolution…. The noncanonic, repressed twin of Literature which, for want of another name, one calls Paraliterature is (for better or worse) the literature that is really read—as opposed to most literature taught in schools. Within it, SF is one of the largest genres, and to my mind the most interesting and cognitively most significant one.
>
> (ibid., p. vii)

Clearly, then, despite the bad art and worse science, much can be said in its favour.

If English-language sf of the last 60 or 70 years began pretty much as formulaic adventure fiction, it has developed (at its best) into a set of writing and reading protocols articulated about and foregrounding aspects of the *objective world* (as science tries to do), through the engaging invention of stories about imagined *subjects*—that is, aware, feeling, thinking persons (typical of literary fictions).

Why should that twofold process be important? The most ambitious answer is this: because its paraliterary texts, produced and read via their distinctive narrative strategies and tactics, constitute a singular window on our vexed episteme.

What's more, its current development is often explicitly and recursively theorised by its practitioners: Samuel R.Delany, Ursula Le Guin, Joanna Russ, Brian Aldiss, Stanislaw Lem, George Turner and others are highly articulate about their positions as writers and readers. In particular, Delany is a striking example of an sf writer advancing both fictive and theoretical narratives side by side, in his case from an explicitly poststructuralist position. I shall trace both these trajectories of Delany's, and position them against those of other exemplary sf practitioners.

The real plausibility of such an exploration in semiotics arose with the major revival of literary theory (specifically that variety of meta-theory which meant to think about thinking about literature) during the last two decades. It became feasible once more to dig deep into the processes of writing and reading, rather than simply ('simply') reading and evaluating or situating examples of pre-defined and valorised literature.

This shift offers an opening for the investigation of science fiction, which on most other grounds has been ruled out of court in advance. Privileged exceptions like Orwell's *Nineteen Eighty-Four* had proved far from central, interestingly enough, to the emerging folk canon established by sf enthusiasts—by, that is to say, readers and writers with specialised training in the codes of construction and reception of sf.

As a science fiction writer myself, I was intrigued by certain questions: What makes an item of sf a good example of its kind? Why is sf relished by practised readers or viewers, while others loathe it?

One crucial factor is that sf is written in a kind of code (on top of—and sometimes displacing—all the other codes of writing) which must be learned by apprenticeship. This necessity, of course, merely intensifies the sceptic's bewilderment at the trouble taken by those who learn it in the first place. No doubt this is true to some extent of all genres, but the coding of each individual sf text depends importantly on access to an unusually concentrated 'encyclopaedia'[3] —a mega-text of imaginary worlds, tropes, tools, lexicons, even grammatical innovations borrowed from other textualities. The enormously ramified intertextuality of sf makes it a specialised mode. For a story to be sf, it is insufficient for a writer to invoke, say, futuristic or extra-terrestrial locales. The narrative-technical constraints of what has been done before by acknowledged sf writers are crucially important (so that Paul Theroux's *O-Zone,* say, reads to the knowing eye more as a clumsy parody of an unfamiliar genre than an example of it).[4]

What's more, a lively interest in diverse kinds of information seems to feed heavily into an enjoyment of sf. Some technological and scientific awareness, at least of a popularised kind, seems essential. Hence the notable monthly presence of just such articles, for 30-odd years, by the late Isaac Asimov in the *Magazine of Fantasy & Science Fiction,* otherwise the most literary of the American sf magazines. Hence the regular pieces by scientists and mathematicians in *Analog* on research topics such as Many-Worlds cosmologies, Kaluza-Klein 10–dimensional spacetime, superstrings, and so forth. Hence, indeed, its playful re-evaluations by physicists of the possibility of actualising certain sf tropes, such as time travel, usually considered theoretically absurd.[5]

All these issues point to a semiotics and stylistics of sf—an investigation of the textual strategies which constitute the writing and reading of sf. What are its generic components? How are they put together? How concretised by readers? How, in turn, do they construct their potential readers?

In theoretical terms, the rise of popular culture studies, discourse theory and deconstruction de-privilege in various ways the literary canon which excluded sf from serious critical attention. These fresh, transgressive modes seem to valorise the sportive qualities which sf embodies in a marked degree.[6]

If certain current meta-scientific analyses find science to be primarily yet another form of discursive negotiation and construction, to be textuality without referent, and nothing more,[7] does this shed any light on sf's inventions and plays? Or vice versa?

I should confess immediately to two possible hazards in my approach here. First: if, as I argue, rich responses to sf texts require a sort of apprenticeship by the reader, it is scarcely feasible to approach sf theory and criticism without a certain familiarity with many sf texts. Just as a brilliantly articulate English user with rudimentary cafe Italian cannot simply pick up Dante or Eco and begin a nuanced enjoyment of *The Divine Comedy* or *The Name of the Rose,* the sf neophyte must

work her way into the specialised narrative structures and vocabulary of sf. I do not insist that readers of this book know by heart the work of Theodore Sturgeon, Isaac Asimov, Robert Heinlein, Alfred Bester, Joanna Russ, Samuel R.Delany, Ursula Le Guin, William Gibson and a dozen or a hundred of their peers. Still, unless you've read one or two of the most celebrated fictions of each of the authors named you will see only the shadow of my discussion.

Is this stipulation cruel and unusual? Not at all. Science fiction is a suitable site for complex theorised reading, but only for those who share some preliminary familiarity with at least a sampling of its best-regarded texts. New studies of Shakespeare or Dickens, after all, rarely go in for detailed plot summaries. Nor should a theorised study of a popular form such as sf proceed out of an assumption of *terra nullius,* the legal fiction that traditional inhabitants of some newly discovered piece of real estate can be ignored (even exterminated) by doughty and well-armed colonists.

That is my first confession. The second is perhaps less pardonable. It is this: I believe that at a time of paradox and crisis in both literary and scientific theory and criticism—when meta-theory continually challenges and erodes canonised methods and their traditional objects of scrutiny—traditional formal methods of exposition and argument ought not to remain protected by a hermetic (that is, a high-priestly) seal.

Indeed, once the central critiques of poststructuralism have been taken into account—no matter that one might quibble about the details or the political implications of any given practice associated with this epistemic innovation[8]—it becomes self-defeating, even absurd, to cling to the very methods which have been so strenuously debunked. So I've adopted a technique based in part on montage or collage, the postmodern device *par excellence.* In doing so, I explicitly acknowledge those powerful presentations which assert that traditional notions of reason and argument are egregiously partial and deceitfully 'transparent': which declare, in fact, that while conventional academic discourse tends to proceed with an appearance of the highest rigour, it is usually to ends ('discoveries', 'findings') established well in advance.[9]

Kim Stanley Robinson, one of today's finest sf writers and critics, makes a similar point rather drolly in his novel of spatial, psychological and sociological exploration, *Red Mars:*

> 'The only part of an argument that really matters is what we think of the people arguing. X claims *a,* Y claims *b.* They make arguments to support their claims, with any number of points. But when their listeners remember the discussion, what matters is simply that X believes *a* and Y believes *b.* People then form their judgement on what they think of X and Y.'
> 'But we're scientists! We're trained to weight the evidence!'
> John nodded. 'True. In fact, since I like you, I concede the point.'[10]

In an effort to break free of both self-validating and self-defeating mechanisms of discourse, I have drawn inspiration from a fertile speculation advanced by the

philosopher Elizabeth Grosz, who lists the likely outcomes of the confrontation between traditional phallocognitive philosophy and feminist critique and construction of an alternative procedure.[11] Confrontations of this kind are by no means purely iconoclastic. As Genevieve Lloyd observes: 'Such criticisms of ideals of Reason can in fact be seen as continuous with a very old strand in the western philosophical tradition; it has been centrally concerned with bringing to reflective awareness the deeper structures of inherited ideals of Reason.'[12]

While Grosz writes specifically of a new feminist philosophy, I take her observations to have a certain general validity. The new critical philosophy diverges in several important ways from previously canonised approaches. Hardly monolithic, or orchestrated around a 'transcendental signified', it is neither relativist or pluralist[13] but *perspectivist:* 'acknowledg[ing] other points of view but den[ying] them equal value'.[14] That is, it asserts commitment without falling into coercive univocity or undecidable agnosticism. This approach, born under the sign of poststructuralism but hardly identical with it, deviates from the Western tradition in a crucial break: '[I]t can openly accept its own status (and that of all discourses) as context-specific.' Perspectivism can openly avow its own political position: 'all texts speak from or represent particular positions within power relations.... Instead of aspiring to the status of truth,' such a philosophy 'prefers to see itself as a form of strategy'. But these strategies are not abstractions. 'Instead of dividing theory from practice [among many other dichotomous impositions] philosophy may regard theory *as* a form of practice.' Far from either valorising or condemning traditional ways of arguing logically from hegemonically ordained premises, it 'expands the concept of reason' (Grosz, 1990, pp. 167–9).

There are serious difficulties in abandoning boring old forms of logic. What's more, I am by no means convinced that the programme of an expanded literary, philosophical or scientific discourse can or ought to take the step into the abyss which Grosz proposes (a step which is implicit, admittedly, in many texts by such poststructuralists as Lacan, Foucault, Derrida and Baudrillard).[15] The newly dimensioned space required to replenish writing and thinking, Grosz speculates, 'may be capable of sustaining several types of discourse, many perspectives and interests (even contradictory ones). No one form dominates the others' (ibid.).

These are large claims, but their intent is generous, more insistent on a declaration of a speaker's position, and those of a speaker's opponents, than to any certified truth; open to a measure of passion and rhetoric usually regarded within the academy as indecorous at best.

The analytic technique I'm trying to employ in this book is grounded also in the view that to a much larger extent than is usually understood the reader constructs her own argument as well as her own text. This is why I frequently urge my case by means of collage, sometimes scathingly rather than coolly framed, displaying exemplary citations alongside each other in a rhetorically heightened context which presses to a conclusion without feigning to 'prove' it.

Even so, there *is* an architecture to the book, a course of argument. Sf's texts, and their special strategies and tactics, have emerged in a number of stages which can be correlated, to some extent, with its historical, economic and ideological

contexts. This development—beginning definitively with 'Modern science fiction' in the 1930s and 1940s—is explored in detail from a variety of alternative starting-points. Chapter 1 examines sf's literary lineage, definitions of sf in terms of themes, scientific and mock-scientific content, and its role as a formula for consolation. Examples of effective sf are displayed against bad or routine material. In Chapter 2, sf's formal specificities and historical vectors are traced in the light of semiotic analysis of *genre*. Chapter 3 develops the view that sf is better seen as a *mode* of writing, and scrutinises some of its academic theorists (Eric Rabkin, Tzvetan Todorov, Darko Suvin). We see that sf is marked by its use of new words put together in new ways. By Chapter 4, we begin to understand that even this does not account for the way a vast number of sf texts support and contest each other through a collective 'mega-text'. Chapter 5 finds these threads of 'Modern sf' drawn together in the early semiotic theories of Samuel R. Delany. The analysis in Part I concludes in Chapters 6 and 7 with close readings of the cyberpunk texts of William Gibson and the *Helliconia* trilogy of Brian W.Aldiss.

The field's most recent development is explicitly theorised by certain of its practitioners, especially Delany, who now forwards both fictive and theoretical narratives from an explicitly poststructuralist position. Part II traces both trajectories, positioning them in Chapter 8 against exemplary theorists of the postmodern (especially Fredric Jameson and his followers). From Chapter 9, my emphasis is on Delany's texts, which are examined critically and combined with results from the earlier semiotic analyses to yield a new model of sf textuality in Chapter 10.

Testing (and contributing to) this modular development, two important moments in Delany's fiction are given close analytical readings. The first is *The Einstein Intersection,* a complex modernist novel marking the high-point of his early work in 1967. Chapter 9 shows that this novel is itself an allegory of writing and reading sf, and constitutes an essay in 'writing the other' (which I dub 'allography'). The second is *Stars in My Pocket Like Grains of Sand,* from 1984, an extravagantly rich and impeccably theorised postmodern sf text, which we consider in detail in Chapter 11. The final chapter of Part II closes with an elaborate, annotated definition of science fiction that attempts to summarise the most important elements we have surveyed.

Part I

MODERN SCIENCE FICTION

1
NEW WORLD, NEW TEXTS

A very secret revolution, which bears no name: objective knowledge, supposed, has taken the place of the subject. This transformation gives rise to a new world, to new texts, to another kind of thought.

(Michel Serres)[1]

Abstract thoughts in a blue room: Nominative, genitive, elative, accusative one, accusative two, ablative, partitive, illative, instructive, abessive, adessive, inessive, essive, allative, translative, comitative. Sixteen cases of the Finnish noun. Odd, some languages get by with only singular and plural. The American Indian languages even failed to distinguish number. Except Sioux, in which there was a plural only for animate objects. The blue room was round and warm and smooth. No way to say *warm* in French. There was only *hot* and *tepid*. If there's no word for it, how do you think about it?

(Samuel R.Delany)[2]

Sf? Already we are in trouble, because these initials are the accepted abbreviation of a whole sheaf of classificatory terms applied to texts produced and received in ways marked only (as we shall see) by certain generic, modal or strategic family resemblances. Sf, or sometimes SF, can stand for 'scientifiction', 'science fiction', 'space fiction', 'science fantasy', 'speculative fiction', 'structural fabulation' (just possibly including 'surfiction'), perhaps 'specular feminism' and, in sardonic homage to right-wing sf at its most florid, 'speculative fascism'.

A mass media version is the odious 'sci fi', a journalistic term[3] taken over with bleak wit by some practitioners to denote junk sf—which is to say, crudely wrought or ill-conceptualised entertainments constructed around a few poorly understood narrative devices ripped rootless from any but the most meagre 'sf mega-text'[4] or shared universe established by generations of earlier sf-canonical writers. Those exhausted tropes are all too familiar: mad scientists, galumphing robots, thundering spaceships, ray-gun battles, cosy holocausts.

In the first part of this book I restrict my attention largely to what has come to be called 'Modern science fiction',[5] which hasn't got much in common with

literary modernism. In the second half, we turn to writing that is better dubbed 'postmodern', this time in both senses of the word. Taken together, these comprise the corpus of commercial, usually American, post-World War II sf writing readily available in English.[6]

THE LINEAGE OF SF

Like parvenus attempting to purchase respectability by the adoption of extinct arms, some sf enthusiasts have sought to establish a direct lineage springing from, for example, the ancient Mesopotamian Epic of Gilgamesh, and passing through the non-realistic chapters of various sacred scriptures to Lucian of Samosata's *True History* (*c.* 150), More's *Utopia* (1516), Bacon's *New Atlantis* (1627), Kepler's *Somnium* (1634), and scores of other texts, not excluding myths, legends, folklore and fables.[7] None of this, finally, is persuasive. Sf, which is often crucially concerned with the strictly unforeseeable social consequences of scientific and technological innovation, is principally a *diachronic* medium—that is, a medium of historical, cumulative change, in which each step is unlike the last.[8] Myth, by contrast, operates typically and primarily in a synchronic or 'timeless' dimension, while fairytale, and often legend and archaic 'history', tracks the 'cyclical' time of individual psychic and social development.[9]

In *Billion Year Spree*[10] Brian Aldiss argued for Mary Shelley's *Frankenstein* (1818) as the Ur-sf novel, a view which has prevailed widely without much acknowledgement, to Aldiss's public annoyance, that his was the case which established it. Subsequently he remarked that

> perhaps the quest for the First SF Novel, like the first flower of spring, is chimerical. But the period where we should expect to look for such a blossoming is during the Industrial Revolution, and perhaps just after the Napoleonic Wars, when changes accelerated by industry and war have begun to bite, with the resultant sense of isolation of the individual from and in society.[11]

The late Dr Isaac Asimov, sf practitioner and interested observer, summed up this case for a recent emergence of sf as a distinctive kind of writing:

> True science fiction deals with human science, with the continuing advance of knowledge, with the continuing ability of human beings to make themselves better understand the universe and even to alter some parts of it for their own comfort and security by the ingenuity of their ideas. If that is so, then science fiction becomes quite a modern phenomenon and cannot claim the respectability of age.[12]

Leaving aside the remarkable complacency of this passage, surely humans have employed systematised knowledge prior to the present blessed epoch?

Well, explains Asimov, it is the rate and scale of the thing which is crucial. Until recently, 'such advances were made so slowly…that individual human beings were not particularly aware of change in the course of their own lifetimes…. It is characteristic of technology, however, that it is cumulative. The further it advances the faster it advances.' Eventually, the pace hotted up to the point where individuals could appreciate from the testimony of their own lives that 'the world was changing and that it was human thought and human ingenuity that was the agent of the change':

> We can then define science fiction as that branch of literature that deals with the human response to changes in the level of science and technology —it being understood that the changes involved would be rational ones in keeping with what was known about science, technology and people.
>
> True science fiction…could not have been written prior to the nineteenth century then, because it was only with the coming of the Industrial Revolution in the last few decades of the eighteenth century that the rate of technological change became great enough to notice in a single lifetime.
>
> (Asimov *et al.,* 1983, pp. 10–11)

More than a generic description, this is a fervent valorisation of sf as, quite explicitly and with no indication of the problematics involved in the claim, '*today's* literature; and, more than that, *tomorrow's*' (ibid., p. 12).

Asimov's account unblushingly echoes a clarion call raised thirty years earlier by John W.Campbell, Jr, usually regarded as the prime shaper of Modern science fiction. Introducing his landmark volume *The Astounding Science Fiction Anthology,*[13] drawn from the magazine he edited, Campbell announced a stunningly hubristic agenda:

> Science fiction is the literature of the Technological Era. It, unlike other literatures, assumes that change is the natural order of things, that there are goals ahead larger than those we know. That the motto of the technological civilization is true: 'There must be a better way of doing this!'
>
> Basically, of course, the science fictioneer is simply the citizen of the Technological Era, whose concern is, say, the political effect of a United States base on the Moon.
>
> (Campbell, 1952, pp. xiii, xv)

In all truth, Campbell's innovative stable of writers produced work far more various and provocative than such a one-dimensional, gung-ho programme would seem to encourage or even permit. Still, as writer, editor and bullying folk-theoretician, Campbell was so saliently placed during the rise of Modern sf that his manifesto is worth citing at some length. Like the stories it prefaced, it was 'representative of the moods and forces at work in the development of the new literature of the Technological Era':

It is essential in the nature of things that there is, at such a period of change-over, two different literatures. One, the old, will at this period be bitter, confused, disillusioned, and angry. Those novelists dealing with broad themes will have stories of neurotic, confused and essentially homeless-ghost people: people who are trying to live by conventions that have been shattered and haven't been able to build new ones, who have seen every effort to build a new stable society wrecked by new forces.

The new literature will tend to be filled with a touch of unreality, but will tell of goals and directions and solid hopes. Naturally it has a touch of unreality; the old goals are gone, the new ones not yet here. Therein is the implicit unreality of any hopeful, optimistic literature of such a period; it asserts that the goal is real, but not yet achieved. Most people want goals that *someone* has already achieved and reported on fully.[14]

(ibid., p. xiv; italics in original)

Does this make sf the peak of literature to date? Given the textual surface of some of the effective but strikingly primitive stories he included in his anthology—'The creature crept. It whimpered from fear and pain, a thing, slobbering sound horrible to hear. Shapeless, formless thing yet changing shape and form with every jerky movement'[15]—Campbell wisely failed to go so far in his claims. 'Science fiction isn't as yet the mature literature it should be, and will be,' he confessed. Still, its prospects were firm. It 'has a place that never existed before—but will exist forevermore' (ibid., p. xv).

DEFINITIONS

There has been no lack of attempts to reach a satisfactory definition of this 'new literature'. The first edition of the authoritative *Encyclopedia of Science Fiction,* edited by Peter Nicholls *et* al.,[16] cited no less than 22 such definitions plus several additional caveats, before summarising (rather feebly): 'A survey of the accounts of the genre quoted above reveals two main expectations: that a work of sf should be concerned with the extension of scientific knowledge and all manner of consequences thereof; and that it should be imaginatively and intellectually adventurous; and even the former is not universally accepted' (Nicholls *et al.,* 1979, p. 161).

Sf historian Brian Stableford asserts that the earliest use of the expression is found in one William Wilson's *A Little Earnest Book Upon a Great Old Subject* (1851), in which, discussing 'the Poetry of Science', he defined Science Fiction as a kind of literature 'in which the revealed truths of science may be given, interwoven with a pleasing story which may itself be poetical and *true*—thus circulating a knowledge of the Poetry of Science, clothed in a garb of the Poetry of Life'.[17]

This can be seen, though, as merely an elaboration of the project glimpsed prophetically half a century earlier by Wordsworth in his Preface to the second edition of *Lyrical Ballads:* The remotest discoveries of the Chemist, the Botanist, or