

# Speculative Fictions for Understanding Global Change Environments: Two Thought Experiments

Noel Gough

The purpose of a thought experiment, as the term was used by quantum and relativity physicists in the early part of the twentieth century, was not prediction (as is the goal of classical experimental science), but more defensible representations of present ‘realities’. Speculative fictions, from Mary Shelley’s *Frankenstein* to the *Star Wars* cinema saga, can be read as sociotechnical thought experiments that produce alternative representations of present circumstances and uncertainties, and anticipate and critique possible futures. In this essay I demonstrate how two examples of popular speculative fictions, Frank Herbert’s *Dune* (1965) and Ursula Le Guin’s *The Telling* (2000), function as thought experiments that problematise global transitions in their respective eras. I argue that critical readings of such stories can help us to anticipate, critique, and respond constructively to social and cultural changes and change environments within nation-states that constitute, and are constituted by, global change processes and their effects.

## Introduction

My invitation to join the editorial board of this journal (and to contribute an article to its first volume) arrived just a few days after I had finished reading *The Telling*, a relatively new science fiction novel by Ursula Le Guin (2000). *The Telling* imagines some of the ways in which humans might respond to the forced homogenisation of culture on a planetary scale and I was immediately struck by its pertinence to my educational research interests in the social and cultural effects and implications of globalisation. A few days later another request arrived, this time from a UK colleague, Justin Dillon, who had been invited to chair a discussion at the first Cheltenham (England) Festival of Science entitled ‘Happy Birthday *Silent Spring*’ to mark the 40th anniversary of the publication of Rachel Carson’s (1962) best-known book.<sup>1</sup> In preparing for this session, Dillon asked a number of colleagues in environmental education research to share their views of *Silent Spring*.

*Dr Noel Gough is associate professor in the School of Social and Cultural Studies in Education, Deakin University, Victoria, Australia.*

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In a subsequent article, Dillon (2002) reveals that all except one of his colleagues viewed Carson's book very positively – in fact, the only negative criticism he received was my own brief response which concluded that '*Silent Spring* is politically incoherent' (p. 16). I must say here that I do not entirely disagree with my colleagues. I too admire Carson for her courageous and passionate exposé of the deleterious environmental effects of chemical pesticides, and acknowledge *Silent Spring's* significance as a trailblazing text in environmental consciousness raising. However, in recent years I have come to suspect that Carson's political responses to environmental crisis were at best naive and at worst irresponsible. More importantly, for the purposes of this essay, my suspicions were not aroused by a direct re-examination of Carson's text. Rather, I returned to *Silent Spring* via its intertextual relationships with Frank Herbert's (1965) cult science fiction novel, *Dune*.<sup>2</sup>

*Dune*, like *The Telling*, can be read as a thought experiment. Both novels produce alternative representations of present circumstances and uncertainties, and anticipate and critique possible futures. Each novel dramatises social transformation on a global scale. In *Dune's* case, the driver of transformation is ecological crisis, whereas in *The Telling* it is the lure of an intergalactic (rather than merely global) 'common market'. In this sense, each fiction speaks to a familiar world and demonstrates the defensibility of Donna Haraway's (1991) assertion that 'the boundary between science fiction and social reality is an optical illusion' (p. 149). I argue that critical and deconstructive readings of these novels might help us to produce anticipatory critiques of global transitions and transformations.

### Science Fiction and Social Reality: *Dune* and *Silent Spring*

I first read *Dune* in 1968, the year in which I began teaching high school biology. Over the next few years, I recall recommending it to students and discussing aspects of the novel that were most obviously relevant to their course. When I moved into teacher education in 1972 I listed it for wider reading in the biology and environmental education teaching methods courses I taught for several years. I found little of interest (to me or my students) in *Dune's* several sequels, and other examples of SF – an acronym that now refers to much more than 'science fiction'<sup>3</sup> – became more relevant to my work in teacher education and, eventually, to my research in curriculum studies (see, for example, Gough 1991; 1993; 1995). In the course of this more recent research, I became increasingly aware

of the growing academic interest in interdisciplinary studies of literature and science and the relevance of these studies for my own work.

In 1996 the US Society for Literature and Science circulated a call for expressions of interest in contributing to an international sourcebook on the contemporary literature of nature, a 250,000-word volume of more than sixty chapters that was intended to cover the major geographic regions of the world as well as national literatures within those regions. The editor welcomed suggestions for other types of contributions and I offered to write a chapter on science fiction as environmental literature. I did this for two reasons. First, I was personally challenged by the prospect of writing in an academic discipline (literary criticism) in which I had no track record. Second, I was familiar enough with the literature of what was beginning to be called *ecocriticism* that emerged, especially in North America, during the mid-1980s<sup>4</sup> to realise that SF might not be regarded as a form of nature writing by many of its practitioners and critics. For example, Thomas Lyon's (1996) *Taxonomy of Nature Writing* includes the following five categories: field guides and professional papers; natural history essays; 'rambles'; essays on experiences in nature (including three subcategories: 'solitude and back-country living', 'travel and adventure', and 'farm life'); and 'man's [sic] role in nature' (p. 278). Lyon makes no references to fiction at all, let alone to genres such as SF, and I began to suspect that such popular texts might constitute blind spots in scholarly studies of environmental literature. I thus saw my chapter as a deliberate intervention in the 'greening' of literary studies that complemented my long-standing interests in exploring and expanding the educative potential of SF in disciplines in which it is still relatively undervalued.

When I revisited *Dune* in the course of writing my chapter for the sourcebook (Gough 1998), I was less interested in its relevance to biology and science education than with appraising it from an 'ecocritical' standpoint. As a point of departure for my essay, I characterised my own position by reference to William Howarth's (1996) description of an *ecocritic* as 'a person who judges the merits and faults of writings that depict the effects of culture upon nature, with a view toward celebrating nature, berating its despoilers, and reversing their harm through political action' (p. 69). Although I intended to focus principally on the distinctive features of SF as environmental literature, I also thought it would be prudent to draw attention to what the genre shares with more conventional forms of nature writing (Gough 1998, 409):

For example, homages to solitude and wilderness, accounts of rambles in remote areas, and other reflections on experience in nature can be found in specific works of SF, such as Ursula Le Guin's (1986) meditation on scrub oaks in *Always Coming Home* (pp. 239–41) – an exemplary exercise in heightened attentiveness to nature. Furthermore, SF usually responds to the same cultural imperatives that motivate other nature writers, as Brian Aldiss and David Wingrove (1986) demonstrate by devoting a whole chapter of their comprehensive history of SF to 'the flight from urban culture' that characterised many of the genre's most typical works between the 1890s and the 1920s. Similarly, Frank Herbert's novel (1965), *Dune*, which he dedicated to 'dry-land ecologists, wherever they may be', can be seen to reproduce what R. J. Ellis (1990) calls the 'discourse of apocalyptic ecologism' (p. 104) generated in North America during the 1960s by books like Rachel Carson's (1962) *Silent Spring*.

I also pointed out that, as a response to an environmental crisis (in this case, massive desertification on the planet Dune), Herbert's story displays some of SF's least admirable stereotypes, such as the assumption that virtually all problems are amenable to technical solutions (although *Dune* emphasises appropriate and environmentally sensitive technology rather than high-tech gadgetry for its own sake). Less defensibly, given the novel's rhetoric of holistic approaches to environmental problems, Herbert invests much of the political power to intervene in *Dune*'s ecology in an individual, Paul Maud'Dib, an extraordinary and increasingly autocratic frontier hero (another SF stereotype). This hero is (of course) male, and *Dune* explicitly reproduces many of the patriarchal discourses that are so disabling in attempts to resolve social and environmental problems through democratic processes.

According to Ellis (1990), Herbert hoped that *Dune* would be 'an environmental awareness handbook'<sup>5</sup> and admitted that the title was chosen 'with the deliberate intent that it echo the sound of "doom"' (p. 120). Ellis (1990) argues that the apocalyptic representation of ecological balance in *Dune* is 'constrained from coherence by its narrative reproduction of the discursive formulations of the science of ecology in mid-century America ... and these discourses' instabilities' (p. 106). Ellis does not suggest that *Silent Spring*'s similarly apocalyptic representation of the impact of

chemical pesticides upon North America's ecosystems was a direct influence on *Dune*<sup>6</sup> but, rather, that both books are symptomatic, in their discursive formations, of key features of scientific representations of the USA's environmental status during the late 1950s and early 1960s. Dillon's request to comment on *Silent Spring* reminded me that it shared a degree of political naivety with *Dune* – that both books were (to paraphrase Ellis) similarly constrained from coherence by their narrative reproduction of the discursive formulations of democratic governance, civil society and citizenship in mid-twentieth century America and these discourses' instabilities. However, I am now persuaded that, for all its limitations, *Dune's* narrative location within the SF genre allows Herbert to deploy a set of generic expectations that enable him to explore the political implications of ecological crisis *more* creatively and critically than Carson does.

Carson argues that ecological disaster is imminent but fails to suggest any possibilities for political action or power redistribution that might avert her doomsday scenario. She indicts governments and chemical companies for their actions and inactions but her engagement with political power arrangements degenerates into anguished and repetitious hand wringing about the effects of insecticides (p. 121):

Who has made the decision that sets in motion these chains of poisonings, this ever-widening wave of death that spreads out, like ripples when a pebble is dropped into a still pond? Who has placed in one pan of the scales the leaves that might have been eaten by the beetles and in the other the pitiful heaps of many-hued feathers, the lifeless remains of the birds that fell before the unselective bludgeon of insecticidal poisons? Who has decided – who has the *right* to decide – for the countless legions of people who were not consulted that the supreme value is a world without insects, even though it be also a sterile world ungraced by the curving wing of a bird in flight? The decision is that of the authoritarian temporarily entrusted with power; he [sic] has made it during a moment of inattention by millions to whom beauty and the ordered world of nature still have a meaning that is deep and imperative.

This passage simplistically equates control with tyranny and individualised authoritarianism – hardly an enabling analysis of political power in the US of the 1960s. Carson's uncertainty about political agency is con-

sistent with Noam Chomsky's (1997) argument that throughout the 20th century US media figures and other elites have promulgated 'spectator democracy' rather than participatory democracy. Wayne Ross (2000) argues that social studies education in the US continues to promote spectator democracy by reproducing proceduralist conceptions of democracy in which 'exercising your right to vote' is the primary manifestation of good citizenship: 'Democracy based on proceduralism leaves little room for individuals or groups to exercise direct political action; this is a function left to a specialised class of people such as elected representatives and experts who advise them' (p. 241).

Compared to *Silent Spring*, the narrative of *Dune* presents a relatively clear and coherent analysis of its political themes. Although Herbert focuses his exploration of the political choices facing the inhabitants of Dune on the dilemmas confronting an individual, he actively interrogates the relationships of power, control, responsibility and foresight through Paul Maud'Dib's constant agonising about the ways he is being elevated to the status of Messiah and his fears that by assuming control of Dune's future he will become a tyrant. In *Dune's* sequels, this ecopolitical theme is subordinated to portrayals of cosmic conflict – banal space operas comparable to the more recently produced episodes in the *Star Wars* cinema saga. But *Dune* itself is rescued from such banality by its persistent engagement with the politics of *responding* to global ecological crisis. Moreover, this engagement is made accessible to readers by the relatively obvious implicit parallels that can be drawn between the history of Dune and the history of the US.

In other words, returning to Howarth's (1996) characterisation of an ecocritic, I argue that Carson's *Silent Spring* is ecocritical to the extent that it depicts the effects of culture upon nature, celebrates nature, and berates its despoilers, but that it largely ignores or oversimplifies the possibilities of 'reversing their harm through political action' (p. 69). But this is precisely what *Dune* offers: a dramatic rehearsal of possible human responses to ecological crises and catastrophes.

I do not want to overstate this particular comparison. There is no shortage of ecocatastrophic literature from the era of *Silent Spring* and *Dune*. I personally believe that J. G. Ballard's stories of the earth in ecological ruin, such as *The Drowned World* (1963) and *The Drought* (1965) surpass *Dune* in literary and ecocritical merit, although neither enjoyed the latter's mass popularity. I could also have made several more direct comparisons between books on similar themes, such as Paul Ehrlich's

(1968) *The Population Bomb* and John Brunner's (1968) *Stand on Zanzibar*. My purpose is to draw attention to the different qualities of texts drawn from different genres that deal with similar 'big issues' in particular times and places and to caution against investing all or most of our interpretive efforts in those that come with arbitrary labels such as 'non-fiction', 'documentary' or 'educational' rather than those which are designated as 'fiction' or 'entertainment'.

Katherine Hayles (1990, xi) makes a similar point in her archaeology of textual representations of chaos and complexity theories in literature and science:

... different disciplines, sufficiently distant from one another so that direct influence seems unlikely, ... nevertheless focus on similar kinds of problems [at] about the same time and base their formulations on isomorphic assumptions. ... Different disciplines are drawn to similar problems because the concerns underlying them are highly charged within a prevailing cultural context. Moreover, different disciplines base the theories they construct on similar presuppositions because these are the assumptions that guide the constitution of knowledge in a given episteme. This position implies, of course, that scientific theories and models are culturally conditioned, partaking of and rooted in assumptions that can be found at multiple sites throughout the culture.

As a curriculum scholar, I am interested in how the different qualities of texts from different disciplines might best be deployed by teachers and learners. And I would argue that, although every text must be judged on its own merits, SF stories often are more hospitable to socially critical educational purposes than 'non-fiction' texts because they are open-ended thought experiments rather than assemblages of evidence, arguments, and foreclosed conclusions. Books such as *Silent Spring* and *The Population Bomb* are a mixture of rhetorical forms but typically include: sermons, moral exhortations and reprimands, didactic instructions, indictments and arraignments, cases for the prosecution, 'scientific evidence' and conclusions, conclusions, conclusions, all characterised by *foreclosure*, by the author's assumption and assertion of a rhetorical dead-end (guilty, QED).

Much SF is not foreclosed. In *Frankenstein* Mary Shelley (1992) asks: what if a young doctor creates a human being in his laboratory...? In

*Dune*, Frank Herbert asks: what if massive desertification threatens a planet very like Earth...? As Le Guin (1979, 156; emphasis in original) writes:

The purpose of a thought-experiment, as the term was used by Schrödinger and other physicists, is not to predict the future – indeed Schrödinger’s most famous thought-experiment goes to show that the ‘future,’ on the quantum level, *cannot* be predicted – but to describe reality, the present world.

Science fiction is not predictive; it is descriptive.

Instrumentalist approaches to education tend to reflect and naturalise models of social interaction in which ‘rational’ behaviour is assumed to follow from human actors pursuing their more or less enlightened self-interests. These approaches readily accommodate ‘instructive’ texts like *Silent Spring* because they privilege ‘scientific’ understandings that are assumed to be instrumental in enabling humans to pursue such ‘rational’ choices. Yet the extent to which knowledges are authorised, and the manner in which they are (or are not) mobilised in the form of dispositions to act (or not), might be very sensitive to different cultural traditions, values and identities. Thus, for example, with respect to environmental education, I agree with Brian Wynne’s (1994) arguments for caution in predicting the effects of providing people with scientific knowledge of global environmental changes, such as those associated with greenhouse gas emissions (p. 186):

The assumption is that increasing public awareness of global warming scientific scenarios will increase their readiness to make sacrifices to achieve remedial goals. Yet an equally plausible suggestion is that the more that people are convinced that global warming poses a global threat, the more paralysed they may become as the scenarios take on the mythic role of a new ‘end of the world’ cultural narrative. Which way this turns out may depend on the tacit senses of agency which people have of themselves in society. The more global this context the less this may become. Thus the cultural and social models shaping and buried within our sciences, natural and social, need to be explicated and critically debated.

I have no doubt that *Silent Spring* energised and inspired many readers to become environmental activists and educators,<sup>7</sup> but I suspect that many others might have been paralysed by its apocalyptic storyline, in



much the same way that the threat of nuclear holocaust prompted some citizens to work for peace and others to build bomb shelters. A thought experiment like *Dune* invites a socially critical approach to curriculum and curriculum inquiry because it foregrounds socio-political structures and agency as well as technoscientific responses to an environmental crisis.

Of course, all of this is to be wise after the event. If I had been disposed to think about texts in the 1960s and 1970s in the ways I think about them now I might have taught my high school and teacher education students very differently. My interest now is in what this sort of analysis means for my present practice as a university teacher and researcher.

### ***The Telling: A Thought Experiment in Global Transition***

I suggest that there are at least three reasons for educators to appraise speculative fictions that might help us to generate new ways of imagining global transitions in social environments and civil society in our present times and circumstances.

First, many nation-states are in various stages of economic, political and social transition from authoritarian regimes to more liberal and market-oriented societies and the role(s) that education can, should or actually does play in their democratisation remains open to question. For example, Holger Daun et al. (2002) report recent studies of student perceptions of and attitudes toward democracy and its representation in textbooks in Bosnia-Herzegovina, Yugoslavia, Mozambique, and South Africa, and conclude that 'a rather dark picture emerges in all four countries' (p. 192). They found that 'curricula do not deal very much with matters on democracy or in a way that could make the students less authoritarian and more democratic' (p. 192) and that 'judging from teachers' and students' answers, they do not see the school as a place where democracy and such matters are discussed and learnt' (p. 193). Daun et al. (2002) also write that in these four countries 'it is evident that curricula and textbooks do not embrace a broad perspective of democracy (including the participatory type of democracy) and that large proportions of the students do not have what in Western liberal democracies is seen as democratic attitudes' (p. 4).<sup>8</sup>

Second, although Western liberal democracies embrace the rhetoric of participatory democracy, it does not necessarily follow that education and other social practices enact or encourage active citizenship. For example, I have already noted the cultivation of spectator democracy in the

us, and I would argue that Australia during the past 20 years has fulfilled Marcus Clarke's prophecy – made more than 120 years ago – by becoming 'a Democracy tempered by the rate of exchange'.<sup>9</sup> That is, Australian social and educational policy is now a function of the nation's position in a global marketplace understood as 'a grand democracy of consumption' (Edwards 2002).

This leads to my third reason for appraising speculative fictions that address global change processes. As globalisation blurs nation-state boundaries and undermines national authority, the grounding of public education systems in national democracies is destabilised. Carlos Alberto Torres (2002) notes that the purposes of public education have typically included preparing future labour for the nation's economy and preparing citizens for the nation's polity but that globalisation 'shifts solidarities both within and outside the national state' (p. 364). He thus argues that alternative futures for democratic education under globalisation must address the questions raised by the globalisation of the two traditional bases of formal education systems, namely, governance and economies (p. 364):

These questions are very straightforward: Will globalization make human rights and democratic participation more universal, or will globalization redefine human enterprise as market exchanges invulnerable to traditional civic forms of governance? Whether education as a publicly shared invention, contributing to civic life and human rights, can thrive depends on the future of globalization – a future that may offer the internationalization of the ideals of a democratic education or may reduce education, and civic participation, to narrow instruments of remote and seemingly ungovernable market forces.

Torres thus calls for a reexamination of education in the light of transformations of individual and collective identities into both more privatised and more globalised forms and concludes that 'to ask how educational policies could contribute to a democratic multicultural citizenship poses a formidable challenge to the theoretical imagination' (p. 376). I suggest that part of this challenge involves questioning taken-for-granted assumptions about the types of cultural materials and media that constitute appropriate resources for the 'theoretical imagination'.

Clearly, globalisation is a contemporary example of what, to borrow Hayles's (1990) terms (as quoted above), we could call an 'underlying

concern' that is 'highly charged within a prevailing cultural context'. We can reasonably expect that 'theories and models' of globalisation 'are culturally conditioned, partaking of and rooted in assumptions that can be found at multiple sites throughout the culture'. To understand the cultural work performed under the sign of globalisation we need to consider how different disciplines represent globalisation as a focus for inquiry and speculation and how they resolve the questions, problems and issues that arise from these foci.

I think it is fair to say that when we<sup>10</sup> present globalisation as a topic in education courses or conceptualise it as an object of educational inquiry, we tend to privilege texts from a relatively limited range of disciplines and sites of cultural production. For example, books that explicitly link globalisation and education (e. g., Burbules and Torres 2000; Stromquist 2002; Stromquist and Monkman 2000) tend to rely on work in the economics, politics and sociology of education, comparative education, and policy studies. Scholars from other disciplines whose work is drawn upon by educational researchers again tend to emphasise areas such as economics, politics and sociology (e. g. Appadurai 1996; Bauman 1998; Beck 2000; Brown and Lauder 2001; Giddens 2000; Jameson and Miyoshi 1998; Waters 1995). These works rarely refer in any detail or depth to the arts and popular culture as sites for the production of meanings of globalisation.

Studies that relate globalisation to issues of multiculturalism, post-colonialism and identity politics (including diasporan cultural identities) are more likely to refer to examples from literature and the arts (e. g. Coombes and Brah 2000; Grant and Lei 2001; Hage 1998; Phillips 2001; Sardar and Cubitt 2002; Wilson and Dissanayake 1996). Few education academics are likely to question the relevance of Salman Rushdie's (1981) *Midnight's Children* or, more recently, Zadie Smith's (2001) *White Teeth*, to understanding the cultural identity politics of globalisation, but novels such as these come with relatively 'high culture' credentials. I suggest that many works of genre fiction – as well as many 'low' cultural artefacts, including advertising, blogs and jokes<sup>11</sup> – might be equally rich sites for exploring the wider cultural meanings and manifestations of globalisation.<sup>12</sup>

Which brings me to *The Telling*, Le Guin's most recent contribution to her series of so-called 'Hainish' novels and short stories. The common background for this series supposes that, at least half a million years ago, intelligent humanoids from the planet Hain spread across the galaxy

and settled on nearly a hundred habitable worlds (including Earth) that were then left alone for many millennia. Le Guin's stories imagine that communication and travel between the worlds has resumed and that a loose interplanetary federation, the Ekumen, coordinates the exchange of goods and knowledge among the myriad of diverse cultures, religions, philosophies, sciences and forms of governance<sup>13</sup> that have evolved separately on the various planets. Representatives of the Ekumen travel to each planet when it is rediscovered and invite peoples of Hainish descent to participate in the federation, if they wish. Worlds have much to gain from joining the Ekumen, but also risk losing their distinctive identities.

Sutty is a Terran Observer for the Ekumen, a language and literature specialist who has travelled to the planet Aka<sup>14</sup> to continue studies initiated by the Observers who first made contact with the Akan people some seventy years earlier. When she arrives she finds little to study because, while she has been travelling to Aka,<sup>15</sup> the traditional culture has been brutally suppressed and almost completely replaced by a technophilic ruling class that has enthusiastically embraced 'The March to the Stars'. Differing local spiritual practices and dialects, and the ideographic writing and literature she had studied, are now deemed subversive, and Sutty finds that she might be the only person on Aka who can still read texts that were written only a generation ago. The Corporation that governs Aka normally forbids Observers from travelling outside the new cities, which have been constructed and settled since the first contact with the Ekumen.

Sutty unexpectedly receives permission to travel upriver from the capital to an old provincial town where she gradually finds her way into the unofficial, traditional culture of Aka, which still survives and to some extent thrives in the locations and activities of daily life that are most difficult to police. She learns of the yearlong and lifelong cycles and patterns of feasts, fasts, indulgences, abstinences, passages, and festivals – observances that resemble the practices of most of the religions with which she is familiar. These are now unobtrusively interwoven into the fabric of ordinary life so that the Monitors of the Sociocultural Office find it difficult to identify any particular act as forbidden.

Sutty's problem (and, as I read it, the novel's) is how she and her fellow Observers might help to 'save' this culture from the destruction that the Ekumen's arrival on Aka inadvertently precipitated. Sutty initially is hostile towards the leaders of the Corporation – personified by a Monitor who tracks her activities – but she also recognises that her hostility

is self-destructive and self-defeating. Her struggles with her own hatreds and self-doubts are in part located in the personal and historical baggage she brings from Terra to her work on Aka. Suttu grew up in a period of severe religious repression on Earth, and realises that she must learn to deal with her own tragic experiences of religious warfare and terrorism if she is to deal fairly with the Akans. The complexity of Suttu's background and its influence upon her development as an Observer offers a convincing vision of the difficulties and the opportunities of contact between different cultures for the people whose identities are constituted by those cultures.

Suttu begins to resolve her dilemmas when she leaves the city and listens to her fellow travellers talk about the events of their daily lives (pp. 34–5):

She heard about them, their cousins, their families, their jobs, their opinions, their houses, their hernias. . . . These dull and fragmentary relations of ordinary lives could not bore her. Everything she had missed in [the capital city], everything the official literature, the heroic propaganda left out, they told. If she had to choose between heroes and hernias, it was no contest.

Part of what makes *The Telling* so curiously compelling is its sustained focus on the lives of ordinary people and the subtlety and sensitivity with which it renders everyday life. As is the case with *Dune*, the stakes in the novel are high – the survival of an entire world's traditional knowledge and culture – but in *The Telling* the struggle for survival takes place primarily within the registers of daily life, because it is the very richness of 'ordinary' life that Aka's totalitarian 'March to the Stars' threatens. Cultural destruction on Aka proceeds by grand and hideous macropolitical gestures, but its traditional culture survives and flourishes in small acts – choices about what to eat, what words to use, what stories to tell. In this sense, *The Telling's* title can be understood as a call to witness and celebrate culture as the telling of stories that give form and meaning to everyday life. I see the politics that Le Guin dramatises here as being consistent with Nancy Fraser's (1993) feminist view of a 'global solidarity' that is 'rooted in a concrete sense of human interdependence in everyday life, a vivid sense of the forms of emotional and practical support people require from one another in daily life, not only when they are very young, very old, or sick but also when they are healthy adults' (p. 22).<sup>16</sup>

Thus, one reading of *The Telling* is as a thought experiment in rehabilitating democratic ideals in the wake of their destabilisation by global corporatism. As such, it addresses Torres's (2002) questions about globalisation's effects on solidarities within and outside the nation-state by imagining in rich and plausible detail how we might *perform* a citizenship premised on shared responsibility for each other's everyday existence. Although Fraser (1993) theorises this mode of solidarity as 'feminist', she emphasises that it does not require shared identity but, rather, a shared understanding of 'those upon whom we feel entitled to make claims for help and those whom we feel obliged to help in turn' (p. 22). Fraser's political principle clearly meets Torres's (2002) 'challenge to the theoretical imagination' but Le Guin delivers a similar challenge (and represents a similar principle) without the abstractions of theoretical labels. *The Telling* is a work of the *practical* imagination, a rehearsal of the concrete choices, decisions and actions that men, women and children can make to protect civic life and human rights (and resist their erosion) at a local, micropolitical level.<sup>17</sup>

Another reading of *The Telling* is to interpret its defence of daily life as an allegory of Tibet's plight under Chinese occupation. The ways of Akan telling resemble traditional Tibetan Buddhist practices and the modes of its suppression resemble Mao's Cultural Revolution. Le Guin confirms this interpretation in an interview with Mark Wilson (n. d.):<sup>18</sup>

I was really just trying to work out in fictional terms what something like the Cultural Revolution in China or the rise of fundamentalism in Arabic countries does to the people involved in it – whether it's the suppression of a religion, which is what happened in China, or the dominance of a religion and the suppression of politics, which is happening in a lot of the Arab world. These are terrifying phenomena – this stuff's going on right now, all around us. And it is something obviously that human beings are likely to behave this way given the right circumstances. So I sort of had to write a book about it.

Nevertheless, the Akan government is called the Corporation and the novel's vision is as applicable to the homogenisation of culture under corporate capitalism as it is to China's cultural wars. Le Guin's thought experiment gives us detailed historicised and contextualised visions of possible and plausible futures that are rooted in the choices we face in the present moment.

These two readings do not exhaust the many possible interpretations of *The Telling* but they should be sufficient to indicate that Le Guin's fiction shares what Hayles (1990) calls 'isomorphic assumptions' with the more self-consciously 'academic' literature of globalisation, governance and social transformation. Many of its interpretive (and thus, I believe, educative) possibilities lie in what at first seem like minor details. For example, almost every significant event in the book is reported to Suttu, who witnesses almost nothing directly, at any point (a little like the way many of us get our news of world events via CNN and its affiliates). Also, Aka is a world with only one continent, so that all of its peoples live on just one landmass. Suttu's reflections on the significance of this difference from Terra – and its implication for the politics of identity – are intriguing, especially in relation to her conviction that traditional Akan spirituality is not a 'religion' (pp. 98–9):

... religion as an institution demanding belief and claiming authority, religion as a community shaped by a knowledge of foreign deities or competing institutions, had never existed on Aka.

Until, perhaps, the present time.

Aka's habitable lands were a single huge continent with an immensely long archipelago of its eastern coast. . . . Undivided by oceans, the Akans were physically all of one type with slight local variations. All the Observers had remarked on this, all had pointed out the ethnic homogeneity . . . but none of them had quite realised that among Akans there *were no foreigners*. There had never been any foreigners, until the ships from the Ekumen landed.

It was a simple fact, but one remarkably difficult for the Ter-ran mind to comprehend. No aliens. No others, in the deadly sense of otherness that existed on Terra, the implacable division between tribes, the arbitrary and impassable borders, the ethnic hatreds cherished over centuries and millennia. 'The people' here meant not *my* people, but people – everybody, humanity. 'Barbarian' didn't mean an incomprehensible out-lander, but an uneducated person. On Aka, all competition was familial. All wars were civil wars.

We hardly need to be reminded of just how deadly our sense of otherness can be. The breadth of new antiterrorist legislation in nations such

as Australia and the US – coupled in Australia with the present federal government's paranoid approach to 'border protection' and treatment of asylum seekers that amounts to institutionalised racism – is eroding the foundations of respect for human rights in these countries and worldwide. *The Telling* provides us with empirical evidence of the *possibility* of thinking what to many humans is unthinkable, such as imagining a world without 'foreigners'. What would social policy (and educational policy) look like if we too assumed that 'the people' meant 'everybody, humanity'? Le Guin reminds us that it is possible to think differently about identity and community, and questions of inclusion and exclusion, without ever underestimating the remarkable difficulty of doing so, and the even greater difficulty of bringing new imaginaries into effect.

### A Reflection and an Invitation

I have no 'conclusions' to this essay, but I will end it by offering a brief reflection on its production and an invitation to readers to continue its always-unfinished work. I began this essay with the hope that it would connect global transitions, educational inquiry and my reading of *The Telling* in ways that might be generative for other readers. I believe that the generativity of this essay depends, in part, on readers recognising that it consists of *explorations* rather than *explanations* and/or *exhortations* and that it exemplifies a mode of inquiry in which 'essay' should most often be understood as a verb – to attempt, to try, to test. In conceptual inquiry an essay serves a similar function to an experiment in empirical research – a disciplined way of investigating a question, problem or issue. Both 'essay' and 'assay' come to English speakers through the French *essayer* from the Latin *exigere*, to weigh. Thus, I write essays to test ideas, to 'weigh' them up, to give me (and eventually, I hope, my colleagues) a sense of their worth. For me, the act of writing an essay is a form of inquiry, and I usually do not know what the final thesis of my essay will be when I begin to write. Ideas about narrative, fiction, textuality and intertextuality are the instruments and apparatus with which I produce 'data' in my conceptual laboratory.

If my essay has been generative you might now be more disposed than previously to look for SF stories that can be read as social thought experiments and to explore their intertextual relationships with the canonical and/or commonplace academic and professional texts that inform your work. More importantly, you will have no hesitation in thinking of these explorations as a form of social inquiry.



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## Notes

1. *Silent Spring* is considered by many critics to be one of the most influential books of the twentieth century (as its publication in the Penguin Modern Classics series indicates). It focuses on the effects of the indiscriminate use of chemicals, describing how pesticides and insecticides were being applied almost universally to farms, forests, gardens and homes with scant regard to the contamination of the environment and the destruction of wildlife. Despite condemnation in the politically conservative US press and attempts by the chemical industry to ban the book, Carson succeeded in creating a new public awareness of the environment that led to changes in government policy and inspired the modern environmental movement.
2. *Dune* is a multiple award winning science fiction novel that spawned numerous sequels. It is a lengthy and elaborate adventure with a labyrinthine plot, much of which takes place on a desert planet called Arrakis (or Dune). Arrakis is the sole source of Melange, a spice that is necessary for interstellar travel and grants psychic powers and longevity, so whoever controls it wields great influence. When the Emperor transfers stewardship of Arrakis from the Harkonnen Noble House to House Atreides an intricate power struggle begins. Through sabotage and treachery the Harkonnens cast a young duke, Paul Atreides, out into the planet's harsh environment to die, where (not without considerable difficulty) he falls in with the Fremen, a tribe of desert dwellers who he recruits to his quest to reclaim Arrakis. However, Paul might also be the end product of a very long-term genetic experiment designed to breed a super human – a 'messiah' – and his struggles with this possible 'destiny' are as difficult and as complex as those he faces in the desert environments of Arrakis.
3. As Haraway (1989) explains, since the late 1960s the signifier SF has designated 'a complex emerging narrative field in which the boundaries between science fiction (conventionally, sf) and fantasy became highly permeable in confusing ways, commercially and linguistically'; SF now refers to 'an increasingly heterodox array of writing, reading, and marketing practices indicated by a proliferation of "sf" phrases: speculative fiction, science fiction, science fantasy, speculative futures, speculative fabulation' (p. 5).
4. This literature included new periodicals such as *The American Nature*

*Writing Newsletter* from 1989, and the journal *Interdisciplinary Studies in Literature and Environment* from 1993.

5. An 'environmental awareness handbook' might seem to be a more appropriate description of *Silent Spring* than of Herbert's SF novel, but this is just one of the ways in which each book 'borrows' some of the other text's generic conventions. For example, *Silent Spring's* first chapter, 'A Fable for Tomorrow', is written in the past tense and emulates (albeit somewhat clumsily) dystopian science fiction.
6. A much more obvious influence is Paul Sears's (1947) *Deserts on the March*.
7. Dillon (2002) quotes an 'Australian EE doctoral student' as follows: 'I read *Silent Spring* for the first time as a fourteen-year-old teenager. At the time I was horrified, but vividly inspired by this text. It provided a doorway to the environmental movement and . . . inspired me to enter the debate . . . Ten years have passed, and I am still intrigued by *Silent Spring*, such that I now endeavour to lead a career in the environmental movement and live my life accordingly' (p.15).
8. Daun et al. (2002) note that participatory democracy appears as an important theme in South Africa's new curriculum framework and textbooks but that large majorities of students in all four countries agree with such authoritarian positions as 'every country needs leaders whose decisions are not questioned' and 'some political parties should be forbidden' (p. 192).
9. Marcus Clarke is a significant figure in the history of Australian literature, best known as the author of an epic popular novel, *For the Term of His Natural Life*. This quotation is taken from an essay, 'The Future Australian Race', published in *The Marcus Clarke Memorial Volume* (Mackinnon 1884, 251), but must date from some years previously since the term of Clarke's own natural life expired in 1881.
10. By 'we' here I mean People Like Us – academic and/or professional researchers and teachers who edit and contribute to journals like this one.
11. An email joke doing the rounds earlier this year alleged that the following was a 'High Distinction answer from ECO101 tutorial, first year, School of Economics and Commerce, Faculty of Arts, Australian National University':
 

Q: How do you define globalisation?  
 A: Princess Diana's death.  
 Q: Why?  
 A: An English Princess with an Egyptian boyfriend crashes in a French tunnel, driving a German car with a Dutch engine, driven by a Belgian affected by Scotch whisky, followed closely by Italian paparazzi, on

- Japanese motorcycles, treated by an American doctor, using Brazilian medicine. (Sent to you by an Australian, using American [Bill Gates] technology which he stole from the Taiwanese.)
12. To demonstrate that I am prepared to practice what I preach, I note here that I have included references to SF and/or popular culture in several of my own publications on globalisation (see, for example, Gough 1999; 2000; 2002).
  13. Readers who are interested in other thought experiments in governance are likely to find an earlier novel in Le Guin's Hainish series, *The Dispossessed* (1974), particularly rewarding. In some editions *The Dispossessed* carries a subtitle, *An Ambiguous Utopia*, which signals the novel's implicit questioning of the conventional form and substance of utopian writing in Western literature. The central character of *The Dispossessed* is a theoretical physicist located in a century-old anarchist society at a time when it is becoming more structured. Not to be confused with nihilism or libertarianism, philosophical anarchism is based on a belief that moral responsibility rests with individuals and views cooperation (solidarity, mutual aid) rather than competition as the key to evolutionary survival.
  14. Le Guin stresses the importance of naming things in both her fiction (see, for example, Le Guin 1987) and literary essays (see Le Guin 1989), so it seems very likely that she intends the name of the planet Aka to invoke the acronymic abbreviation 'aka' (also known as).
  15. A period of many years – the technology exists to transmit information instantaneously across any distance, but physical travel through space still takes a long time.
  16. Fraser (1993) outlines three other ways of formulating an 'inclusive, universalist, global view of solidarity as shared responsibility which does not require shared identity', namely: a socialist view 'based on . . . our interdependence in a common global political economy . . . where wealth is the common creation of all people's labor'; an environmentalist view 'based on our . . . interdependence as inhabitants of a common biosphere'; and a radical-democratic view 'rooted in the fact that we inhabit an increasingly global public space of discourse and representation . . . that might be redefined as a space in which all people deliberate together to decide our common fate' (p. 22). Traces of the latter view can be discerned in *The Telling* (and a variation on it is particularly apparent in *The Dispossessed*; see n. 11, above).
  17. Le Guin's non-fiction essays on SF and fantasy demonstrate a persistent engagement with feminist politics (see, for example, 'Is gender necessary? Redux' and other essays in Le Guin 1989) and much of her recent fiction challenges the gendered conventions of these genres.

18. <http://www.scifi.com/sfw/issue189/interview.html> (27 November 2002). By way of reflecting on my own textual strategies, I must point out here that I am not privileging Le Guin's interpretation of *The Telling* merely because she wrote it. I agree with the spirit of Umberto Eco's (1984) dictum that 'The author should die once he [sic] has finished writing. So as not to trouble the path of the text' (p. 7). I quote Le Guin for the same reasons that I use or paraphrase other authors' words: because their formulations and interpretations are agreeable to me and because I am self-consciously writing in a genre of academic journalism characterised by the rhetorical deployment of frequent quotations and citations.

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