



TRANSPARENT MINDS IN SCIENCE FICTION

AN INTRODUCTION TO ALIEN,
AI AND POST-HUMAN
CONSCIOUSNESS

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2. Authorial Approaches

‘Science’ implies the world of fact and what we all agree on seems to be true in the natural world. ‘Fiction’ implies values and meanings, the stories we tell to make sense of things. David Hume argued that it’s impossible to argue from the way the world is to the way the world ought to be and yet here is a genre that claims to be a kind of ‘fact-values’ reconciliation, a bridge between the two.

Kim Stanley Robinson¹

How do our SF authors approach their work? How do they tackle the essential problem of the aesthetics of other minds, choose narrative modes and connect facts to values and meanings as Robinson describes? Fortunately, they have been generous enough to share aspects of their method and we can start to piece together some common themes, despite the natural variety in their styles. For instance, they have carefully chosen the narrative voice that fits the main consciousnesses they want to feature. They endeavour to portray the nonhuman despite the human constraints and reference points they have to work with. They decide how much detail to give the reader and how much to leave out, in order to build more reader involvement. Their own relation to the SF genre may vary enormously. But as we would expect, all the authors are abreast of developments across the sciences—how things are—in order to have a healthy wellspring of ideas as to how things could be.

Influences and inspiration

Of course, contemporary science is a pivotal influence on many of the writers quoted in this book, from physics through biology to brain

1 Kim Stanley Robinson, quoted in Richard Lea, ‘Science Fiction: The Realism of the 21st Century’, *The Guardian*, August 7, 2015.

science. Multi-award winning author of the *Imperial Radch* trilogy Ann Leckie notes the influence of reading about consciousness effects in split-brain patients and other effects of brain damage in order to develop her approach to portraying a ship-mind.² A further prolific and successful contemporary writer, Adrian Tchaikovsky, is surely not alone in keeping an ongoing dialogue with scientist friends and colleagues to sense-check his ideas about enhanced animals, alien consciousness and the joining of minds. He particularly notes the influence of Peter Godfrey-Smith's *Other Minds* on his development of octopus society and consciousness in *Children of Ruin*.³ And scientists have helped to bridge the gap in highlighting the possibilities for forms of life as inspired by known biology and the range of conditions in which life is found on earth. Author Greg Egan notes the influence of Jack Cohen and Ian Stewart's *What does a Martian Look Like?*, a book on xenobiology that gathers together scientific knowledge of relevance to possible alien life.⁴

The extent of scholarship in the background research of these SF authors should not be underestimated. Kazuo Ishiguro reportedly spends up to five years in research, before developing a first draft.⁵ Roger Zelazny once described his process to develop a sound scientific knowledge base:

I sat down and made a list of everything I felt I should know more about. Astrophysics, Oceanography, Marine Biology, Genetics. Then when I'd finished the list I read one book in each of these areas. When I'd finished I went back and read a second book until I'd read ten books in each area. I thought that it wouldn't turn me into a terrific, fantastic expert but I'd at least have enough material there to know if I was saying something wrong.⁶

2 Ibid.

3 Sarah Lewin, 'Alien Minds, Alien Tech (and Spiders, Too): Q&A With Sci-Fi Author Adrian Tchaikovsky', Space.com, 15 May 2019. <https://www.space.com/children-of-ruin-adrian-tchaikovsky.html>.

4 Jack Cohen and Ian Stewart, *What Does a Martian Look Like?: The Science of Extraterrestrial Life* (London: Ebury Press, 2004).

5 Allardice, Lisa, 'Kazuo Ishiguro, 'AI, Gene-Editing, Big Data... I Worry We Are Not in Control of These Things Any More', *The Guardian*, 20 February 2021. <https://www.theguardian.com/books/2021/feb/20/kazuo-ishiguro-klara-and-the-sun-interview>.

6 Roger Zelazny, 'Zelazny & Amber—Phlog44 RZ Interview', interview by Alex Heatley, 1995. http://www.roger-zelazny.com/repository/phlogiston_interview.html.

Alongside such broad-based research, authors may then drill down on particular examples of species or phenomena to draw inspiration. Becky Chambers describes how her fictional worlds start with a consideration of basic functions of her aliens who are inspired by Earth zoology:

With alien species, I start with biology. The Aandricks, for example, are a reptile-like, ectothermic species who lay eggs. So how does that affect your architecture, or your concept of parenthood, or family, or the typical composition of a household? From there, I ask questions about how these things affect art and culture and government and philosophy and so on.⁷

A single powerful psychological and philosophical idea can also drive stories, as we see for example with zombies in Peter Watts' *Blindsight*, which plays on the philosophical thought experiment of other people being identical in all ways but not being conscious⁸ In this vein, in Theodore Sturgeon's classic novel *More than Human*, children with diverse supernatural abilities can fuse consciousness. Sturgeon describes how the psychological idea of the 'gestalt', the central idea in the book, has been powerful and lasting both for him and his readers:

The Gestalt relationship is something that people really and truly want to know. The Gestalt relationship has preoccupied me for so long—the concept of a whole entity made up of very discrete individuals who don't lose their individuality. Gestalt between people is not like an army or a fascist dictatorship where everybody does what he's told. It's not an idea or particular creed that people have or share. It's what they are.⁹

And while specific scientific knowledge has been a rich source of influence and inspiration, the realisation that science also reveals our own finite limits has been another. We will see how alternative senses and the power of neuroplasticity has been a strong influence on authors

7 Becky Chambers, quoted in Ann Leckie, Kim Stanley Robinson, and M John Harrison, 'If the Aliens Lay Eggs, How Does that Affect Architecture?: Sci-Fi Writers on How They Build Their Worlds', *The Guardian*, January 5, 2021. <https://www.theguardian.com/books/2021/jan/05/if-the-aliens-lay-eggs-how-does-that-affect-architecture-sci-fi-writers-on-how-they-build-their-worlds>.

8 Robert Kirk, 'Zombies', in *The Stanford Encyclopedia of Philosophy*, eds Edward N. Zalta and Uri Nodelman, Summer 2023. Metaphysics Research Lab, Stanford University, 2023. <https://plato.stanford.edu/archives/sum2023/entries/zombies/>.

9 Theodore Sturgeon, 'The Push From Within: the Extrapolative Ability of Theodore Sturgeon', interview by David D. Duncan. <http://www.physics.emory.edu/faculty/weeks/misc/duncan.html>.

in imagining alternative powers. Doris Lessing is certainly someone who has noted the restriction of the human *umwelt*:

But the whole point about us is that we have an extremely limited grasp; our senses are adequate only for functioning in this world and reproducing ourselves. And just one little example: a very slight difference in our eyes and we would see the sun differently, which would never have occurred to us until certain kinds of photography came into being, and you see what the sun looks like—not through our eyes but with a different kind of camera. We assume that what we see and what we think is all there is.¹⁰

This kind of objective humility is a long way from the anthropocentric confidence that drove early SF, and surely leads to far more nuanced and subtle fiction.

And it is not simply content ideas that drive innovation in writing styles, plots, and descriptions of non-humans. Formats can provide a set of implicit rules that can be used to some advantage. Kazuo Ishiguro, for instance, originally thought of *Klara and the Sun* as a children's book, and, so explained, we can see this influence:

When you look at books for young children, you can see in them so much of our complex mix of wishes for our children's future: our urge to protect them from the harsher realities, the desire to pretend (just for now) that the world is a kinder place than we know it to be. Yet at the same time, those stories and pictures are often imbued with our wish not to mislead, to start giving small hints about the difficult things that lie ahead.¹¹

In the case of *Klara*, these difficult things include the shortness of human and robot life coupled with the ethical challenges around how we should treat realistic androids. And there are further benefits to conceptualising a story as a children's book: Ishiguro's simplicity of language in the storytelling lends huge power to the emotional events described.

10 Doris Lessing, 'A Thing of Temperament: An Interview with Doris Lessing, London, May 16, 1998', interview by Cathleen Rountree, *Jung Journal* 2, no. 1 (2008). <https://doi.org/10.1525/jung.2008.2.1.62>.

11 Kazuo Ishiguro, quoted in Lisa Allardice, 'Kazuo Ishiguro: 'AI, Gene-Editing, Big Data... I Worry We are Not in Control of These Things Any More'', *The Guardian*, February 20, 2021. <https://www.theguardian.com/books/2021/feb/20/kazuo-ishiguro-klara-and-the-sun-interview>.

Finding the gaps

In developing original angles to alien and artificial minds, authors have found it useful to diverge from prevalent trends and overused plot devices. Vernor Vinge, for instance, uses an ‘idea box’ to keep track of plot and character inspiration. He notes his approach to the hive mind concept used in *A Fire Upon the Deep* was inspired by a perceived gap in other work:

One thing I noticed is that these group minds usually involved very large numbers of members. The individual members might be of human intelligence or they might only be of animal intelligence, but the ensemble was actually a very large group, and I noticed there were hardly ever any group minds where there were three or four or five members.¹²

For Martha Wells, one motivation for her Murderbot character was the prevalence of tropes about AI dissatisfied with their artificiality, or needing to become all-powerful:

I’d also read/seen a lot of stories with AI who want to become human, like Data in ‘Star Trek: Next Generation’. I wanted to write about an AI that wasn’t interested in becoming human at all, and who wasn’t particularly interested in revenge against humans, either. An AI that just wanted to be left alone.¹³

So a key source of novelty is to first identify those scenarios that have become so well-rehearsed they are almost ingrained, before imagining an alternative, thereby moving the genre forwards.

Reader interactions

Ramez Naam is an example of an author who progressed from writing scientific nonfiction, to science fiction in his Nexus Saga of novels. He notes the importance of reader feedback in his choice of story directions:

12 Vernor Vinge, quoted in John Joseph Adams and David Barr Kirtley, ‘Interview: Vernor Vinge’, *Lightspeed Magazine*, May 2012. <https://www.lightspeedmagazine.com/nonfiction/interview-vernor-vinge/>.

13 Martha Wells, quoted in Veronica Scott, ‘Interview with Martha Wells, Author of *The Murderbot Diaries*’, *Science Fiction, Amazing Stories*, July 27, 2018. <https://amazingstories.com/2018/07/interview-with-martha-wells-author-of-the-murderbot-diaries/>.

I had a mother looking at her autistic son who she just couldn't reach, wondering if Nexus could help her touch his mind, longing for it. And more than one person—these were beta readers, reading the book well before it was released—told me that that particular passage gave them chills.¹⁴

William Gibson, challenged by a reader as to why the opening of *The Peripheral* was so difficult, responded that:

My own preference, as a reader, for this sort of book, is to experience the closest possible equivalent to culture shock. I want to go to new, strange places, feel lost, and then (probably with quite a few subtle nudges on the author's part) gradually figure out where I am and what the heck's going on. As a reader, I enjoy few things more. From feedback, I know that I'm not alone in that, but also that some readers find it too demanding. But it's impossible to take care of both sides of that particular aisle at once.¹⁵

For Gibson then, reader feedback is one way to gauge the success of narrative style and degree of exposition, authorial choices we will explore further below.

Narrative modes and consciousness

In the examples used in the following chapters of the book, we see examples of narrative voice chosen in the attempt to centralise other minds. Authors make use of omniscient, indirect styles of speech and thought.¹⁶ Others have chosen to alternate between third and first person, in the case of Kim Stanley Robinson's *Aurora* a first person plural to indicate the collection of AIs forming the ships' consciousness. In Olaf Stapledon's *Star Maker* the first person voice changes from singular to plural as the main protagonist fuses consciousness with aliens met on his journeys.

14 Natassia, 'Interview: Ramez Naam | Literary Escapism', 12 September 2013. <https://www.literaryescapism.com/39192/interview-ramez-naam>.

15 William Gibson, 'The Afterword Reading Society: The Peripheral by William Gibson', Culture, *The National Post*, December 10, 2014. <https://nationalpost.com/entertainment/books/the-afterword-reading-society-the-peripheral-by-william-gibson>.

16 e.g. Gwyneth Jones' *White Queen*, Charles Stross' *Accelerando* and more direct narrative and inner monologue (e.g. Kazuo Ishiguro's *Klara and the Sun*, Martha Wells' *The Murderbot Diaries*).

For Ann Leckie, depicting an omniscient ship's consciousness was an opportunity for what has been dubbed *protagonism*, the ability for a lead character to empathise and explore the minds of more minor players. The ship, *Justice of Toren*, is connected to and served by an army of ancillary cyborgs organised into segments and units (such as One Esk). In the end, Leckie chose to use the ship as an omniscient narrator in the first person, exploiting the ship's ability to read its officers emotion, and to witness events in parallel. The effect is one of empathy coupled with beneficent surveillance (but surveillance nonetheless):

Depicting what that must be like—to have not only a huge ship for a body, but also hundreds, sometimes thousands, of human bodies all seeing and hearing and doing things at once—the thought of that kept me from even starting for a long time. How do you show a reader that experience? I could try to depict the flood of sensation and action, but then the focus would be so diffuse that it would be difficult to see where the main thread was. On the other hand, I could narrow things down to only one segment of One Esk, shortchanging one of the things that really intrigued me about the character, and also making it seem as though it was more separate from the ship than it was.¹⁷

While some authors have explored the creation of a non-human omniscient narrator, other authors prefer first person. Greg Egan's early work showed this preference:

I used to have a strong preference for first-person writing, and one of my novels, *Quarantine*, was even written in first-person, present tense. There were good reasons for that, but it might be a spoiler to reveal them. Some people are positively allergic to first-person and claim it's psychologically unrealistic or interferes with suspension of disbelief, but I don't accept either position: there are times when we really do feel as if we're narrating our own lives moment by moment, but there are also cases when this is simply the most powerful way to frame the events of a story, even if it's not how the characters were likely to have experienced them at the time.¹⁸

17 Ann Leckie, 'Interview with Orbit Books' (Orbit 2013).

18 Johnson, Andrea, 'Interview: Greg Egan on Orthogonal and Thirty Years of Writing Hard Science Fiction', SF Signal (blog), 6 June 2014. <https://www.sfsignal.com/archives/2014/06/interview-greg-egan-on-orthogonal-and-thirty-years-of-writing-hard-science-fiction/>.

Egan's reference to this spoiler perhaps alludes to the powerful effect in 'Learning to be Me' introduced by the decommissioning of the narrator's brain and replacement by an artificial, emulated mind. We begin to doubt the unity and integrity of what is being referred to as 'I'.

Martha Wells' use of first person for Murderbot helps in her attempts to expand time during the action sequences, where the android is carrying out commands and actions in parallel but the narrative is necessarily sequential. Her short, staccato paragraphs serve to depict the robots executive functions operating at a speed beyond human capability.

Aside from the these more traditional third and first person narrators, other authors have taken different approaches. For her Broken Earth trilogy, N.K. Jemisin opted to use the unusual second person for many sections of the narrative, where we learn that it is used in part to address the reader, but also the main character Essun's later self, as she has been profoundly affected by past trauma and amnesia.¹⁹ Jemisin explained her decision:

What worked best was second person. I've always thought of second person as distancing; after all, it's impossible for the reader to ever truly be 'you'. Yet I've read some incredibly intimate second-person stories, and as I actually tried writing it for the first time, I found that it's sort of amazing and powerful—both distancing and intimate at the same time. You can't be this person, but you can understand her.²⁰

In addition to narrator choices, unusual character pronouns are also used effectively in the work of some of the authors, contributing to the effect of alterity. This tradition, perhaps originated in the work of Ursula Le Guin, inspires Ann Leckie's use of 'she' for her alien cultures that are genderless,²¹ and Gwyneth Jones' use of a 'she' changing later to a 'he' for the main alien character who has characteristics of two

19 Wickham, Kim, 'Identity, Memory, Slavery: Second-Person Narration in N. K. Jemisin's *The Broken Earth Trilogy*', *Journal of the Fantastic in the Arts* 30, no. 3 (2019): 392–411, 479.

20 N.K. Jemisin, quoted in John Scalzi, 'The Big Idea: N.K. Jemisin', *Whatever: Furiously Reasonable* (blog), August 6, 2015. <https://whatever.scalzi.com/2015/08/06/the-big-idea-n-k-jemisin-4/>.

21 This was done to draw attention to our more common use of 'he' as a gender default, though did lead some readers to think that all her characters are women.

human genders. In the work of Martha Wells, ‘it’ creates a useful tension when used to refer to a first-person character that feels human. Greg Egan opts for ‘ve’ to refer to his posthuman constructs. These small stylistic choices nonetheless have powerful net effects at the scale of the whole stories.

Writing the alien

Perhaps the biggest challenge for SF authors is how to even approach alien consciousnesses. Here, while admitting the difficulty, there is also a feeling that some guiding principles or constraints do exist. Adrian Tchaikovsky has characterised his depiction of other minds as scientific/narrative experiments, such as attempting to enter the mind of a sentient jumping spider about whom only observable behaviour has been recorded in Earth species:

Although a lot of people seem to be very happy with the Portian viewpoints from *Children of Time*, I really had to stretch my brain to get my head around the other nonhuman perspectives. I’d kind of say I’ve gone a bit above and beyond in terms of finding unusual nonhuman protagonists.²²

Tchaikovsky has close connections to scientific advisers on his writing and explicitly acknowledges the influence of *Other Minds* by Peter Godfrey-Smith on his development of the octopus characters in *Children of Ruin*. The author describes the difficulty of translating this knowledge of the octopus nine-brain layout to his story

I think it’s possibly the hardest thing that I’ve ever done as a writer. There’s always this kind of, almost a gravitational pull towards anthropomorphizing things and making them more human, because that’s innately more comprehensible and it’s easier to write. And it’s walking that line, where you’re writing something that is comprehensible to your readers but at the same time isn’t simply slapping a mask on a human viewpoint.²³

22 Adrian Tchaikovsky, quoted in Sarah Lewin, ‘Alien Minds, Alien Tech (and Spiders, Too): Q&A With Sci-Fi Author Adrian Tchaikovsky’, Space.com, May 15, 2019. <https://www.space.com/children-of-ruin-adrian-tchaikovsky.html>.

23 Ibid.

While the fully alien present a challenge, future extended humans might require a simpler extrapolation from our current state. For example, Egan has a straightforward view of writing his posthuman characters:

Basically, I just look at things from the characters' perspective and ask myself what their problems and anxieties would be. In *Permutation City* people have existential crises merely from waking up as software, because the process is entirely new, but in *Diaspora* editing and copying yourself is old hat and people are far more worried about problems in theoretical physics that might help them evade a cosmic disaster. Obviously no reader will have had personal experience of either situation, but if the characters' priorities and reactions make sense in the circumstances, any reasonably empathetic person can relate to them.²⁴

This kind of empathy can extend to the alien too. Vernor Vinge decided to use familiar animal-like descriptions to provide his human readers partial understanding of his alien species:

We're familiar with dealing with dogs as individuals, and we're familiar—less familiar, but somewhat familiar—with dealing with dogs as part of pack-like groups. So an awful lot of stuff sort of came along with that idea, and I did not have to further explain those sorts of things. They were sort of already rooted in the consciousness of most readers.²⁵

But while providing these touch points, authors want to also stress the alterity of their aliens. Peter Watts has described his approach to alien design in *Blindsight* as finding the balance between the known and unknown:

I was a little tired of aliens, both literary and cinematic, that basically seem to be humans in rubber suits with one or two cultural knobs cranked to eleven. On the other hand, it's a bit too easy to throw a big black slab at the audience and say 'There's no point in even trying to understand the aliens because they're, you know, alien'. If something evolved in Darwin's universe, it's damn well going to adhere to certain natural laws, and that makes it tractable. So I wasn't so much breaking a convention as I was treading the razor's edge between two conventions. I tried to ensure that

24 Greg Egan, 'Interview with Carlos Pavón', 1998. <https://www.gregegan.net/INTERVIEWS/Interviews.html>.

25 Vernor Vinge, quoted in John Joseph Adams and David Barr Kirtley, 'Interview: Vernor Vinge', *Lightspeed Magazine*, May 2012. <https://www.lightspeedmagazine.com/nonfiction/interview-vernor-vinge/>.

everything was deeply weird—life without genes, intelligence without conventional cephalisation—but nothing was unjustifiable.²⁶

In my view, Watts (and Lem's *Solaris* which we will see later) certainly do achieve this 'deeply weird' effect, perhaps more so than others who have relied more heavily on human and animal reference points.

On the need for 'expository lumps'

In addition to finding the balance between the possible and the highly speculative, authors make a conscious choice in the extent to which character and events are explained. While classic SF tended to revel in lengthy explanation—particularly of alien worlds and space drive technologies—from the New Age of the 1960's and onward, authors were perhaps more likely to use a deliberate minimalism aimed at drawing the reader in. This sparser approach can increase the space to trigger cognitive resonance in the reader, making them do more of the imaginative work. As Adrian Tchaikovsky admits (echoing William Gibson), getting this balance right can be a struggle:

It's one of the great writer's arts to pare what you have learned on a subject down to the bare minimum. The temptation to show off your erudition is always very strong. Certainly it's something my editors bring me up on quite often. And every reader's different, and some may prefer more or less visible scaffolding. It's a real case-by-case exercise, but you get a mental feel for those situations where you just haven't joined the dots enough, or where readers might get tripped out of the immersion by questions about why or how something happened.²⁷

Minimalism in style can apply to plot and to world building—the detail of fictional societies and places. For plot, I put it to Gwyneth Jones that some readers of *White Queen* have found her slightly obfuscatory and difficult, with the lack of explanation leaving them struggling to connect the threads, but she was unapologetic:

26 Peter Watts, 'Peter Watts Interview', *Pat's Fantasy Hotlist* (blog), December 22, 2006. <http://fantasyhotlist.blogspot.com/2006/12/peter-watts-interview.html>.

27 Adrian Tchaikovsky, quoted in 'Author Interview: Adrian Tchaikovsky', *The Book in Hand* (blog), May 26, 2021. <https://thebookinhand.com/2021/05/26/author-interview-adrian-tchaikovsky/>

I wrote a novel, not a scifi story, and imagined scifi things happening to people with complications and problems in their lives (which interfere with the smooth running of the plot, of course!). In real life, we do not understand each other. I think fiction should reflect that, even in the middle of an alien invasion... If you're serious about writing SF, don't be afraid to confuse!²⁸

She also sought to create the kind of confusion characteristic of colonial invasions, where history shows us a litany of mistrust, ineptitude and exploitation.

In their approaches to fictional worlds, authors such as Alastair Reynolds generally are wary of being overly descriptive and logical, for fear of becoming encyclopaedic and flat, with the reader too passive a participant:

I like the idea that you write in such a way that the reader thinks they've been given a bit of world-building, but they haven't—they've made it up in their own head, or joined up the dots. That's the way to do it with maximum economy. Clearly this is something that frustrates a lot of readers, but I like leaving stuff out.²⁹

So narrative explanation can be made the responsibility of the reader, leaving the author free to provide minimal cues or even misdirection. William Gibson admits that the exposition he provides is not really central to the plot:

I wanted to play it by my own possibly kind of perverse strict rules of golf in future SF ..none of those... no expository lumps. Or if there are expository lumps, they're kind of perverse lumps because they explain things that the reader doesn't actually need to know.³⁰

As well as this selectivity on description of worlds and plot, characters too can be treated enigmatically. Kazuo Ishiguro has noted that he prioritises characters' relationships before their own backstories, as in

28 Gwyneth Jones, email message to author, 2021.

29 Alastair Reynolds, quoted in Ann Leckie, Kim Stanley Robinson, and M John Harrison, 'If the Aliens Lay Eggs, How Does that Affect Architecture?: Sci-Fi Writers on How They Build Their Worlds', *The Guardian*, January 5, 2021. <https://www.theguardian.com/books/2021/jan/05/if-the-aliens-lay-eggs-how-does-that-affect-architecture-sci-fi-writers-on-how-they-build-their-worlds>

30 William Gibson, quoted in Karin L Kross, 'William Gibson on Urbanism, Science Fiction, and Why *The Peripheral* Weirded Him Out', *Tor.com*, October 29, 2014. <https://www.tor.com/2014/10/29/william-gibson-the-peripheral-interview/>.

his view it is in the intriguing relationships that we come to care about them.³¹

The range of narrative style in the genre thus varies from more realist to more impressionist and abstract, allowing different locations of meaning-making. When discussing deeper meaning, China Miéville, whose work is at the fantastical side of SF, emphasises the importance of metaphor rather than any fixed, allegorical intention:

A metaphor fractures and kicks off more metaphors, which kick off more metaphors, and so on. In any fiction or art at all, but particularly in fantastic or imaginative work, there will inevitably be ramifications, amplifications, resonances, ideas, and riffs that throw out these other ideas.³²

Miéville has thought and taught a lot about writing the numinous and sees the weird as somethings all around us and commonly encountered:

My impression is that a lot of us do experience it quite a lot, in everyday life. But given that part of its *differentia specifica* is that it is AWESome, beyond language, expressing it is very difficult. I think a lot of what we admire in Weird Fictioneers is not that they see, but that they make a decent fist of expressing.³³

Miéville's work succeeds, then, by focusing on conjuring the alien though rich language and metaphor, something that other authors attempt more by creating deliberate gaps for the imagination to fill. The experience is different, but can be just as unsettling.

I will assume in this book that there is a continuum between universal experience and the limited kind of consciousness we know as humans, a continuum which extends above and below us to forms of consciousness we do not or cannot know. Fiction represents human attempts to guess at what this might mean to the subjects themselves.

31 Orhanen, Anna, 'An Exclusive Q&A with Kazuo Ishiguro on *Klara and the Sun*', Waterstones.com Blog. <https://www.waterstones.com/blog/an-exclusive-qanda-with-kazuo-ishiguro-on-klara-and-the-sun>.

32 China Miéville, quoted in Geoff Manaugh, 'Unsolving the City: An Interview with China Miéville', *BLDGBLOG*. March 1, 2011. <https://www.bldgblog.com/2011/03/unsolving-the-city-an-interview-with-china-mieville/>.

33 China Miéville, quoted in Jeff VanderMeer, 'God, That's a Merciless Question': China Miéville's Interview From *Weird Tales*, *Jeff VanderMeer* (blog), June 16, 2009. <https://www.jeffvandermeer.com/2009/06/16/god-thats-a-merciless-question-china-mieilles-interview-from-weird-tales/>.

Science fiction attempts to ground this guess in knowledge, to build a skeleton on which conjecture can extend itself and reach out into the possible.

I will be considering any non-standard consciousness as useful to the picture, so will include accounts of superhumans, sentient earth species as well as human-created AIs that have been created in fiction. From individual minds, we will progress to depictions of many minds in union or widely distributed. We will then visit ways in which we ourselves might escape the current limits of consciousness through posthuman enhancement or transcendence of our 'wetware' limits. A sensible place to start, though, is in descriptions of first becoming aware, the initial coalescence of mind and stirrings of conscious reflection.