Introduction: Why Do We Need Aliens?

"What are these Martians?"
"What are we?" I answered.
(H.G. Wells, *The War of the Worlds* (1897))

Invasions of discourse snatchers

Aliens are everywhere. They have conquered movie screens, with blockbuster movies like *Independence Day*, *The Day the Earth Stood Still*, *Avatar*, *Prometheus* and the many remakes of *The War of the Worlds*. They have marched into video games, comic books, and cartoons. They have even crept into our nightmares, with a sizable number of people claiming they have been abducted by UFOs. The SETI project has been fruitlessly searching for signs of extraterrestrial intelligence for more than fifty years.[1] We are longing for the good news that we are not alone in the Universe but when alien ships do land, we run away screaming – at least, if the movies are to be believed. Torn between attraction and revulsion, we are watching the skies.

"We", perhaps, is the wrong pronoun to use here since it assumes the uniformity of audience and response. Many previous discussions of the subject of alien encounters have lumped together the Martians of H. G. Wells and of *Mars Needs Moms*, conflated Dr. Who and Dr. Sagan, and blended pop culture's delicious scares with the serious scientific endeavor of looking for extraterrestrial life. But while there are important continuities within our cultural eco-system, there are equally important ruptures. Before I define my own subject of inquiry, it is necessary to specify what I am *not* going to talk about by describing the different discursive registers that deal with aliens.

First, there is the subculture of people who believe that aliens are already here: members of UFO cults, alien abductees, and conspiracy theorists.[2] Largely, though not exclusively, confined to the US and the UK, this group is fascinating in what it reveals about religion formation and mass hysteria. However, its aliens are rather pedestrian. Not just physically – either as the fetus-like Grays or the tall blond "Nordics" – but intellectually and emotionally as well, they resemble their target audience to a rather depressing degree. Would a super-civilization really cross interstellar distances in order to mutilate some cows and perform old-fashioned gynecological examinations on randomly chosen women?

Second, there are Hollywood blockbusters and TV series, from the *Star Trek* franchise to *Dr. Who*, that are largely responsible for disseminating the clichés of alien encounter among wide, but not necessarily widely educated, audiences. This is not to put down movie-goers but rather to suggest that Hollywood movies and mainstream TV are designed to appeal to the cultural average. The cinematic aliens are, therefore, squeezed into the Procrustean bed of simple moral judgment: they are either good – *E.T.*; or bad – *War of the Worlds*. For the same reason, they are either anthropomorphic (*Star Trek*) or have tentacles (everything else).

Surprisingly, it is precisely UFOs and movies that are most often invoked in the cultural studies of the alien, despite their intellectual vacuity. Neil Badmington's *Alien Chic* (2005), for example, does an excellent job of analyzing these two registers of alien discourse but stops short of tackling the next two, even though this is exactly where the figure of the alien reveals its profound cultural, epistemological, and ethical implications.

As opposed to the Alien Abduction Support groups and *Battle: Los Angeles*, there is a serious scientific study of the possibility of alien intelligence. Epitomized by the SETI project, this field exists on the intersection of astrobiology, astronomy, and philosophy (see Paul Davies, Lamb). Its practitioners take great pains to dissociate themselves from UFO enthusiasts. As the SETI scientist Paul Davies writes, UFO stories reflect the limitations of the human mind in trying to imagine aliens but they "cannot be taken seriously as evidence for extraterrestrial beings" (2010: 38).

And, finally, there is literary science fiction (SF).[3] The importance of the figure of the alien for the genre can hardly be exaggerated. Since H.G. Wells' ground-breaking *The War of the Worlds* (1897), innumerable novels and stories have been written featuring "SF's most versatile metaphor, its signature trope, the Alien" (Monk 186). Literary SF occupies

the middle ground between the popular visual media and the science of alien intelligence, touching both and yet irreducible to either. It has its own distinctive set of narrative tools, conventions, and meanings.

Like the visual media, literary SF is *fiction*, clearly signaling its "as if" ontology, thus differentiating itself from UFO cults.[4] On the other hand, literary SF is a cognitively challenging and epistemologically naturalistic genre, aligned with the ethos of modern science. In his classic analysis of SF, Darko Suvin defines it as the literature of "cognitive estrangement", whose impact is primarily intellectual rather than emotional (1979). In a more recent study of the poetics of the genre, Seo-Young Chu described SF as mimesis of cognitively estranging referents; that is, as representation of entities within our mental universe that resist immediate perception and apprehension (2010).

The alignment between SF and science is ideological rather than substantive. The genre does not have to cleave to known scientific facts but it has to be informed by the scientific worldview:

> But even in the hardest of hard sf, sf's science is always figurative. It is an image of science […] [SF writers] use the language and history of technoscience to evoke the coherence and correspondence of the scientific worldview – but always with the freedom to violate, stretch, ironize and problematize it. If actual science intends to increase human beings' freedom by augmenting their power over matter, sf makes both freedom and power the subject of play. (Csicsery-Ronay 111)

The kinship between the ethos of science and SF is evident in the fact that SETI scientists, while keeping UFO enthusiasts at bay, are strongly influenced by literary SF. Paul Davies' books often reference such SF writers as Stephen Baxter and David Brin who, in their turn, have contributed to the scientific and philosophical debates over the possibility of alien contact. One of the founders and promoters of SETI, the astronomer Carl Sagan wrote a novel of alien encounter called *Contact* (1985), of which more below.

This book focuses on literary SF as a testing-ground for the ontological, epistemological, and especially ethical issues raised by the possibility of the existence of alien intelligence – entities that defy our cultural and psychological conflation of reason and humanity. The question I am trying to answer is the one posed by the great SF writer Stanislaw Lem: "How can a human author describe a being which is definitely gifted with reason, but which, with equally categorical certainty, is not human?" (1984: 244). The artistic challenge of such representation

is inseparable from the ethical challenge of dealing with the "not human". And while aliens may, or may not, exist, the nonhuman is already here, inhabiting and undermining our most cherished verities of humanism. We need aliens because we are already alien to ourselves.

Nonhuman, inhuman, posthuman

It has become a cliché that we live in the age of posthumanism. Traditional definitions of humanity are being undermined by advances in science and technology, social and political upheavals, and ideological shifts:

> …technology is rapidly making the concept of the "natural" human obsolete. We have now entered the realm of the posthuman, the debate over the identities and values of what will come after human. (Vint 2007: 7)

But while this debate has been very successful with regard to identities, mining the conventions of SF for a whole zoo of posthuman types – the cyborg, the hybrid, the android, the AI – the question of values has remained somewhat murky. Radical representations of genetically enhanced or computer-plugged subjects coexist with a familiar feel-good agenda of individual freedoms and human rights. The Golden Rule apparently remains in place even when all the other rules are suspended. "Humanism is always becoming posthumanism" (Badmington 12). But the converse is also true: posthumanism is always sliding back into humanism.

To avoid this slide, I will argue, posthumanism requires a new form of ethics, predicated on the transformative encounter with the ontological Other. In the articulation of such an ethics, SF has a special role as a testing-ground for new forms of subjectivity and narrativity. Perhaps the "and" is superfluous here: subjectivity *is* narrativity. We are narrative animals, articulating our relation to the world and each other through stories whose form, no less than content, is responsible for the way we see ourselves. Different types of the alien encounter in SF embody different modalities of ethical response to the presence of radical alterity in the Universe.

There is, by now, a sizeable and growing body of works dedicated to posthumanism. Following the lead of Michel Foucault and Jean-François Lyotard, such scholars as Donna Haraway, N. Katherine Hayles, Bruce Clarke, Gary Wolfe, Neil Badmington, Sherryl Vint, and many others

have explored the current historical moment "in which the decentering of the human by its imbrication in technical, medical, informatic, and economic frameworks is increasingly impossible to ignore" (Wolfe xv). Many of their studies rely on SF as *the* paradigmatic narrative discourse of posthumanism:

> SF is particularly suited to exploring the question of the posthuman because it is a discourse that allows us to concretely imagine bodies and selves otherwise, a discourse defined by its ability to estrange our commonplace perceptions of reality. (Vint 2007: 19)

And yet there is a subtle return to humanism in many of these explorations: a return predicated on the notion that "decentering of the human" will inevitably support some form of familiar ethical and political behavior. Wolfe writes, for example:

> Such a project [of posthumanism] points us toward the necessity of an ethics based not on ability, activity, agency, and empowerment but on a compassion that is rooted in our vulnerability and passivity [...] In this light, the ethical force of our relation to the disabled and to nonhuman others is precisely that foregrounds the necessity of thinking ethics outside a model of reciprocity between 'moral agents' [...] the ethical act might instead be construed as one that is freely extended without hope of reciprocation by the other. (Wolfe 141; emphasis in the original)

But what if the Other *is* a moral agent but with a morality different from mine? What if compassion backfires when my own intuitions provide no clues to the desires and needs of my interlocutor? How do we navigate in a world where forms of agency are as multiform as the biological configurations of posthuman bodies? Can SF show us not just "bodies and selves" but entire cultures and civilizations "otherwise"?

It is perhaps not surprising that the greatest successes of posthumanism have been in relation to animal studies. Animals are at our mercy; their plight indeed calls for an ethics of compassion. But one hardly needs posthumanism to defend their rights; indeed, historically it was liberal humanists and utilitarians who have campaigned most successfully for better treatment of livestock and wild animals. The greatest challenge of posthumanism, it seems to me, lies not in reiterating or expanding the Golden Rule but in trying to imagine what lies beyond it. And here SF aliens may be of invaluable help, modeling for us an

encounter with the ontological Other who is *not* merely a victim of human self-centeredness.

One might object that aliens do not – so far – exist, while animals certainly do. But as the world is becoming more unified, divisions within our species are not thereby diminishing. Cultural, religious, ideological, and even neurological differences are becoming more pronounced and more exacerbated. Simply asking for mutual "respect" and "tolerance" is not going to resolve the clashes and stand-offs, in which the opposing sides come armed with incompatible moral and epistemological systems. We are one species biologically – *Homo sapiens sapiens* – but we are already several cultural species and this "pseudo-speciation" is not going to stop. Just the opposite: it is being accelerated by the developments of biotechnology that might soon turn social and ideological opinions into neurochemical and genetic facts.

The alien in SF is a lever to break open the confines of what Nietzsche called "human, all too human". It is a trope of ontological alterity, a way for our culture to come to terms with the radical otherness of the Universe and with what Jean-François Lyotard called "the inhuman" within the psyche (1991). The alien is what is located outside the boundaries of humanity and whose very existence challenges humanism.

Not all SF lives up to its iconoclastic potential. In fact, the narrative form of the genre may reinforce humanism and anthropocentrism. As Mark Rose pointed out in one of the first critical explorations of the genre, the main paradigm of SF is the confrontation between human and nonhuman. The nonhuman "may be conceived positively […] or negatively as a form of the diabolic" and in both cases, it is subordinated to the human-centered moral scheme (Rose 41).

But this does not have to be the case. Cognitive estrangement, the main narrative strategy of SF, operates precisely by estranging or defamiliarizing our commonly held beliefs. It does so in a rational and quasi-scientific manner, appealing to the intellect rather than emotions. The SF of alien encounters defamiliarizes the moral, psychological, and ethical verities of humanism. At its most intellectually fearless, such SF questions not just the good and evil of particular human actions (colonization, war, assimilation) but the human-centered notions of good and evil themselves. Challenged at this deepest level, humanity responds by incorporating the Other within its epistemological and moral framework. The posthuman becomes an ethical response to the inhuman.

The book explores three different scenarios of alien encounter: *confrontation, assimilation*, and *transformation*. They mark the degrees of

engagement with the Other, from violent rejection, through passive acceptance, to transcendence of the limitations of humanism in pursuit of an ethical stance beyond the Golden Rule. But before discussing them in more detail, I want to linger over the issues raised in the quote from the *War of the Worlds* that serves as the epigraph to this chapter. What, indeed, are those as yet non-existent aliens, from Mars, Vega, Alpha Centauri, or the Galactic Center, that haunt the dreams and nightmares of postmodernity? And what are we?

"What are these Martians?"

SETI and the cosmic mirror

In his book *The Eerie Silence: Renewing Our Search for Alien Intelligence* (2010) Paul Davies, chair of the SETI Post-Detection Science and Technology Sub-Group, reviews the history of the project and frankly addresses some of the troubling issues raised by it. Among these issues: the absence of any proof that alien intelligence exists; the absence of firm criteria for what would qualify as such a proof; and the embarrassing fact that the signs of alien activity SETI is searching for faithfully reflect the current level of human technology. When Frank Drake started the search in 1960, he was looking for radio signals because this was the cutting edge of what we did. Nowadays, there are proposals for detecting laser signals, crowd-sourcing software developments, and analysis of the Kepler extraterrestrial-planet discovery data. But surely if aliens exist and their technology is superior to ours it will likely be as strange to us as the Internet would be to medieval clerics. In fact, we may not even recognize it as technology.

Davies points out that there are two levels of technology we know so far: hardware and software. But

> Might there be a still higher level, as yet outside all human experience, that organizes information in the same way that information-processing organizes electrons? … There is no vocabulary to describe the third level but it does not mean it is non-existent, and we need to be open to the possibility that alien technology may operate on the third level, or maybe the fourth, fifth… levels. (Davies 2010: 160)

In other words, we do not know what we are looking for, and we may not know we have found it even if it staring us in the face. In addition to these philosophical objections, the long years of silence (the SETI project started in 1959) have led many to dismiss the search for alien

intelligence as futile. Peter Schenkel wrote in the *Skeptical Enquirer* some years ago:

> However, in the interest of science and sound skepticism, I believe it is time to take the new findings and insights into account, to dampen excessive SETI euphoria and to adopt a more pragmatic and down-to-earth stand, compatible with facts. (Schenkel 2006)

Schenkel's objections are based on the re-evaluation of the Drake equation that calculates the probable number of civilizations in our galaxy.[5] But what is interesting is the tone of his reluctant admission that SETI may have been a failure. Even as he is offering us a "consolation prize" of our uniqueness, he is hoping against hope that the "dream of mankind to find brethren in space may yet be fulfilled" (Schenkel 2006). Similarly, Davies, while acknowledging the shaky foundations of SETI, insists that we need to keep looking, that we need to find intelligent aliens. There is a profound emotional need to do so:

> If we ever do discover unmistakable signs of alien intelligence, the knowledge that we are not alone in the universe will eventually seep into every facet of human enquiry. It will irreversibly alter how we feel about ourselves and our location on planet Earth. The discovery would rank alongside those of Copernicus and Darwin as one of the great transformative events in human history. (Davies 2010: 200)

Just how strong this emotional need may be is vividly dramatized in Stephen Baxter's *Manifold* trilogy (1999–2002). The trilogy is an exploration of the so-called Fermi paradox, whose informal formulation is: "Where are they?" Suggested by the physicist Enrico Fermi in 1950, the paradox points out the disjunction between the seemingly high probability of intelligent life as based on the age of the universe and the estimated number of habitable planets (running into billions) on the one hand, and the lack of any extraterrestrial visitors, or indeed of any evidence that extraterrestrials exist.[6]

Baxter's trilogy presents three solutions to the Fermi paradox: we are alone in the universe; the universe is teeming with intelligent life but this life is subject to periodic extinctions; and there are a number of universes coexisting in the multiverse in each of which life may or may not develop.[7] These solutions are not alternatives but rather constitute a three-step progression. In *Manifold: Time*, the first book of the trilogy, our descendants realize that there is no other intelligent species in our universe. Traveling

among the stars, they find "no *other* against which human advancement could be tested" (Baxter 1999: 3). The sheer wrongness of this is so great that they reach back into our own time and working through the mutated super-intelligent children blow the Earth to smithereens in order to generate black holes through which new universes, teeming with intelligence, can be created. The protagonist of the trilogy is a retired American astronaut Reid Malenfant (or rather, *a* Reid Malenfant, a slightly different version of him in each book). Initially horrified by the self-destruction of humanity, he comes to accept it as a necessary sacrifice. The purpose of mankind is to find aliens and, if they do not exist, to create them. It is simply unacceptable that we are alone, that "all the mind and love and hope in the universe was confined to that thin blue film of dirt and water and air" (Baxter 1999: 236). The SETI enthusiasts, patiently pointing the recently installed Allen Telescope Array in Hat Creek, CA to the unresponsive sky, would recognize the frustration and unquenchable hope of Baxter's hero.[8]

But there are two different ways of understanding this hope. We may be searching the sky for the confirmation of who we are, for "brethren in space" who will beam back to us our narcissistic reflection. Or we may, as Baxter's heroes, be searching for "the *other*", the intelligence that will be unlike us and that will call into question our most cherished assumptions about ourselves. We may be pining for a mirror. Or we may be reaching out for a window opening up onto the unknown.

Us are them

In SF criticism, the figure of the alien has often been seen as a mere aid in "the development of humanity's understanding of its own intrinsic nature" (Monk xiv). The function of fictional aliens is to reinforce "man's position at the center of his universe" by acting as a foil to our strengths and weaknesses (Rabkin and Slusser viii). This, I will argue, is a very reductive way of reading the trope of the alien but it is undeniable that much of popular SF fits this description. The aliens in the so-called Golden Age of American SF (roughly between the 1930s to the 1950s) were often hostile; later they became more friendly. But whether as friend or foe, "space brethren" are simply human beings with tentacles (Soviet SF, which I will discuss in chapter 2 was at least consistent in making its aliens as anthropomorphic on the outside as western aliens were on the inside). Between the cuddly ET and the gung-ho invaders of *Independence Day*, movies have marked out the restrictive moral and ontological territory where aliens are allowed to roam. Good or bad, they are just like us.

There are innumerable examples of this deep-seated anthropomorphism. Perhaps one of the more interesting ones is the works of Hal

Clement (1922–2003), precisely because he has been commended for his realistic portrayal of aliens. Indeed, as a proponent of hard SF, he is meticulous in working out the physical constraints of his unusual worlds, such as the rapidly rotating Jovian gas giant Mesklin in his classic *Mission of Gravity* (1954). But the inhabitants of this planet, despite having the physical shape of small centipedes, are psychologically and morally human. The novel is focalized through the eyes of one such alien, with the reader given full access to its psyche, which as comfortable as an easy chair. Indeed, one may experience a greater jolt of estrangement by accessing the mind of a Japanese protagonist in, say, a Haruki Murakami novel than the mind of a centipede crawling in 700 g super-gravity in Clement. In a later novel *Still River* (1987), anthropomorphism becomes almost self-parodic, as a group of students, only one of whom is human, explores a strange planetoid. The rest of the party, ranging in physiology from an ammonia-breathing ball to a giant crawler, have names like Joe and Carol and are far more agreeable than a bunch of sophomores on Earth are likely to be. Nowhere in the novel is there even a suggestion that physiological and cultural differences may create tensions or mutual misunderstandings. The novel is dedicated to Clement's children who have shown to him "that no mind one loves can be truly alien" (Clement 1987: vi). It is a touching sentiment directed at one's offspring but as a general maxim, it is rather problematic. Does it mean that no one can love a truly alien mind?

In seems that the endless flood of alien invasions and galactic wars washing over pop culture signifies just that. However, a closer look shows that no one can hate a truly alien mind either. Whether lovable or hateful, the easy-to-understand aliens are always made in our own image. Paranoia is not a negation of goodwill but its negative, black to its white. Discussed in Chapter 1 of this volume, the war-of-the-worlds scenarios far outnumber the amicable depictions of cosmic solidarity. But they are ruled by the same logic, or rather, by the logic of the Same. Aliens want to invade, colonize, or subjugate humans for exactly the same reasons humans have invaded, colonized, and subjugated each other throughout history. Stephen Hawking created quite a media stir when he suggested that we should be wary of hostile aliens. But there was nothing new in his warning: he simply articulated the underlying assumptions of cosmic anthropomorphism."So if aliens ever visit us, I think the outcome would be much as when Christopher Columbus first landed in America which didn't turn out very well for the Native Americans" (Hawking 2010). The aliens are to us as the Europeans were to the Native Americans. In other words, the aliens *are* us.

A certain degree of anthropomorphism in imagining alien intelligence is inevitable. We are cognitively hard-wired to ascribe agency to other beings and since the only intelligence we know is our own, fictional aliens are likely to mirror their creators to some degree. In a book arguing against what he calls "new anthropomorphism" in relation to animals, John S. Kennedy claims that the anthropomorphic interpretation of animal behavior is "a drag on scientific study of it" and yet concedes that it is ineradicable because it has been built into us by natural selection and reinforced by cultural conditioning (5). Animals, however, act on their own regardless of how we interpret their actions. Fictional aliens reflect the inner dynamics of human culture and society. As David Lamb points out in his assessment of the philosophical implications of the search for alien intelligence, a "cautious use of analogical reasoning is clearly advised" when considering both the likelihood and the form such intelligence can take (Lamb 63). Earth seems to be a fairly representative planet and the fact that we are here should count for something.

But there is an *excess* of anthropomorphism in representation of aliens, above and beyond the necessary limitations of human language and cognition. This excess has an ideological function, reinforcing a certain limited – and limiting – view of humanity.

In his *Alien Chic* (2005), Neil Badmington paradoxically suggests that the visible presence of aliens in postmodern culture and the seemingly benevolent attitude to them – "Alien Love" – in fact "quietly reaffirms a traditional border between 'them' and 'us'" (6). By analyzing a wide variety of cultural texts – from *Star Trek* movies to the psychologist John E. Mack's credulous book on the UFO abductee experience – Badmington shows how these texts re-inscribe the very boundary they seem to erase:

> This fundamental elsewhere, this absence, is one of the moments at which humanism reaffirms itself in a space that is declared by Mack to be beyond anthropocentric thinking … the human subject finds itself reassured, marked out as authentic and absolutely different from the inhuman. (81)

Love and hate, acceptance and paranoia, are mirror images of each other; and in this hall of mirrors, humanism as an ideology and ethics is reaffirmed by friendly ETs as much as by alien invaders:

> "Alien love", that is to say, is abducted by the logic of "alien hatred". The binary opposition between "Us" and "Them", human and inhuman, resurfaces. What might, at first glance, appear to be a radically

> different approach to the extraterrestrial – aliens are welcomed; close encounters are benevolent and beneficent – turns out to be merely a different way of shoring up the traditional distinction between human and alien. (Badmington 85)

He further suggests that the alien love-fest is a reaction to the crisis of humanism caused by evolutionary psychology, the animal rights movement, and the development of AIs. As the binaries of human–animal and human–machine are being undermined, the difference between human and alien is used to shore up the crumbling humanist ontology. Since aliens are a product of our imagination, they cannot challenge us with their inconvenient quiddity, the way animals and computers do.

But in fact, not all aliens are as familiar as the UFO pilots or space colonizers. There are other images of extraterrestrial intelligence out there.

Pi in the sky

The binary dichotomy of friend/foe seems to admit of only two broad possibilities of alien contact: either it is love, peace, and mutual understanding; or ray-guns blasting and planets being blown up. But there is a powerful undercurrent in both scientific and science-fictional discourses of alien encounter that suggests a third possibility: transcendence.

Meeting extraterrestrials would be "more akin to the consequences of a religious revelation" than to a UN session (Baxter; qtd in Davies 2010: 189). Indeed, UFO believers have already turned their imaginary close encounters into the foundation of New Age cults: some silly but benign like Raelianism, some sinister like the Heaven's Gate whose followers committed mass suicide in 1996.[9] For most scholars, these overtly religious aspects of alien contact seem to indicate that the entire issue is simply a postmodern reframing of the search for God. Brenda Denzler, for example, believes that the UFO phenomenon is an aspect of the New Age resurgence of religious belief and that the experiences of the abductees lie in what she calls "the middle kingdom": a spiritual realm impervious to the reach of science (178). Brian Appleyard similarly suggests that aliens have become an imaginary counterweight to science's "ongoing project … to disenchant the world, to subdue the strange" (173). Both scholars' surprising willingness to accept the abductees' wild claims at face value rests precisely on their sympathy to the religious impulse behind it.

But the stark opposition of science and religion hides a more complex picture. Science and religion differ in their ontology: science is based on the naturalistic presumption that disallows a supernatural intervention

into the material universe. Insofar as aliens are natural beings, no matter how powerful or advanced, they cannot be conflated with the angels or demons of theology. But science and religion may share an emotional and spiritual stance, the attitude of wonder and awe. Indeed, it is arguable that science does more to *enchant* the world than conventional religion.

Paul Davies addresses the issue of whether SETI has become a religion and concedes that the quest for extraterrestrial intelligence has a "spiritual dimension" and that "for many non-scientists, the fascination of SETI is precisely its quasi-religious quality" (2010: 213). At the same time, he insists that as opposed to God (or even *a* god), aliens are material beings like ourselves. The assumption of their existence does not require the abandonment of the naturalistic philosophy of science. If SETI is a religion, it is a religion without the supernatural. But it is still informed by search for the transcendent and the sublime.

One of Lem's most interesting comments on the interrelation between SF, science, and religion comes in his discussion of the Strugatsky brothers' SF masterpiece *Roadside Picnic* (analyzed in chapter 2 of this volume). He considers the challenge of representing a truly alien mind and compares it to the challenge of representing the divine. Mysticism has thrived by "maintaining the mysteriousness of God" (Lem 1984: 198). SF cannot simply declare its aliens to be unknowable but it can avoid anthropomorphism by borrowing some of the tools of theology and mysticism. The poetics of the numinous and the sublime allows us to go beyond the categorical limits of the human. Rather than aliens being a metaphor for God, God becomes a metaphor for aliens.

The successes and pitfalls of using mysticism as a source of representational strategies for the alien are demonstrated by Carl Sagan's novel *Contact* (1985). It is a particularly interesting text because it was written by a practicing scientist whose name has become a byword in the skeptical movement. Sagan, the author of the bestselling *Demon-Haunted World: Science as a Candle in the Dark* (1995), one of the classics of new atheism alongside the works of Richard Dawkins and Sam Harris, can hardly be accused of harboring supernatural beliefs of any kind. Nevertheless, his only novel engages the Christian narrative of the Good News, redemption, and salvation to an astonishing degree.

Contact follows the SETI astronomer Ellie Arroway, who becomes one of the five human beings to come face to face with aliens. Ellie is instrumental in deciphering the alien radio signal received from Vega and in building the Machine that allows the multinational team of five to "walk" through a wormhole and to meet the aliens who take the form of

the most important person in each contactee's life (for Ellie it is her dead father). However, the five astronauts return with no material proof of all the amazing things the aliens have told them, including the fact that the universe is teeming with civilizations who cooperate on a stupendous scale, while keeping underdeveloped planets, such as Earth, safely quarantined.[10] Ellie and her fellow contactees are accused of fraud and the Machine is destroyed by a rising tide of religious fundamentalism.

Ellie's entire life-story is a quest for transcendence. As a child, she is fascinated by transcendental numbers and by the infinity of what Kant called "the mathematical sublime". It is the lure of the sublime that prompts her to reject the idea that aliens do not exist. Much like Baxter's Malenfant, she cannot emotionally reconcile herself to the possibility of the empty cosmos:

> All those billions of worlds going to waste, lifeless, barren? […] No matter how valiantly she tried, Ellie couldn't make herself take such a possibility seriously. It dovetailed perfectly with human fears and pretensions, with unproved doctrines about life-after-death, with such pseudosciences as astrology. It was the modern incarnation of the geocentric solipsism… (Sagan 66)

Ellie is searching for the numinous Other, rejecting the universe filled with "human, all too human." And in the scientist's parable of wish-fulfillment, her desire is granted. Not surprisingly, one of the first questions she asks of the alien father-figure is not about knowledge but about experience: "are those who make the numinous unable to feel it?" (366). The alien replies that they are indeed capable of awe, indicating their ontological parity with humans. No matter their world-shattering powers, they are natural, not supernatural, beings.

Much of the novel deals with the aftermath of the alien message, framed as the debate between science and religion. And religion loses: not because it is emotional but because it is not emotional *enough*. Science rather than religion is capable of evoking the sense of *mysterium tremendum*. As Ellie tells her lover:

> I think the bureaucratic religions try to institutionalize our perception of the numinous instead of providing the means so you can perceive the numinous directly – like looking through a six-inch telescope. If sensing the numinous is at the heart of religion, who's more religious would you say – the people who follow the bureaucratic religions or the people who teach themselves science? (159)

The catch, however, is that if the archaic narratives of "bureaucratic religions" fail to convey the numinous, so does the science-inspired narrative of *Contact*. The meeting with the aliens is bathetic; the recourse to the father-figure reinforces the sense of recycling religious clichés rather than truly "providing the means so you can perceive the numinous directly." And this is the reason, perhaps, why Ellie's quest does not end with the meeting with the aliens but leads her straight into a version of Intelligent Design – precisely the kind of ideology Sagan vehemently opposed in his capacity of a science popularizer and a skeptic. It turns out that the real Message is hidden in the structure of transcendental numbers, broadcasting to all who have eyes to see that the Universe itself is a work of art, lovingly designed and maintained by a Supreme Creator:

> In the fabric of space and in the nature of matter, as in a great work of art, there is, written small, the artist's signature. Standing over humans, gods and demons, subsuming Caretakers and Tunnel builders, there is an intelligence that antedates the universe.
>
> The circle had closed.
>
> She found what she had been searching for. (430)

These are the last words of the novel and there can hardly be a more disappointing conclusion. Why to travel light years to meet aliens, just to be told that the real Gospel is not the Bible but a math textbook? Since both seem to deliver pretty much the same message – love, reconciliation, and salvation – what is the difference?

It would be easy for a believer to point to Sagan's deployment of religious discourse in order to accuse the scientist of bad faith. The problem, however, is not that Sagan uses theology as a source of metaphors but that it is a wrong kind of theology. Instead of challenging the human-centric worldview, he reinforces it. A sentimental father–daughter reunion is a staple of the same "bureaucratic religions" he faults for their lack of the numinous. Instead of sublimity, we are given sentimentality. Sagan does not defamiliarize the quotidian but refamiliarizes the unknown.

This refamiliarization is reinforced by the narrative structure of *Contact*. It is the traditional *bildungsroman* of a sympathetic heroine who is also the novel's exclusive focalizer.[11] Ellie is a stock character: a plucky tomboy who overcomes social barrier in pursuit of her dream. Sagan undermines his own objective by locking the heroine who is trying to transcend the human condition in the cage of literary humanism.

We feel so comfortable inside her head that anything nonhuman becomes merely a distant backdrop to her quest.

But the object of her quest, the numinous, belongs with "referents that all but defy human language and comprehension" (Chu 7). Insofar as SF strives to represent such referents, it has to go beyond the poetics of psychological realism. But a comforting theology that creates God in man's image is not sufficient either.

The Great Father or the Great Other?

It is often claimed that the naturalistic basis of religion is the brain's tendency to attribute human-like agency to nonhuman objects. Stewart Guthrie provides a concise summary of this view: "My claims, then, are first that religion is anthropomorphism (the attribution of the human characteristics to the nonhuman world); and second, that such attribution is peculiarly intuitive – that is, spontaneous and independent of external tuition" (Guthrie 99).

According to this view, religion is irreducibly anthropomorphic. But paradoxically, religion also has the opposite aspect: the ineffable experience of the numinous and the sublime. Early scholars of religion, such as Rudolf Otto and Mircea Eliade, emphasized the numen, or the sense of the sacred, as the foundation of religion (see also Chapter 5). Recently Andrew Newberg et al. made a renewed case for the importance of mystical, spiritual experience as underpinning the enduring presence of religion in all human societies (2001).[12] These two aspects of religion are in constant dynamic tension. Perhaps Sagan's mistake in *Contact* can be described as confusing anthropomorphism and apophaticism.

Apophaticism, or negative theology, emphasizes the unknowability and unrepresentability of God, the profound and unbridgeable gap between human and divine. Recently negative theology has had a renaissance in religious studies because of the way in which it resonates with the intellectual climate of postmodernity, "in which negation – as difference, absence, otherness – is frequently judged to be more interesting than affirmation" (Davies and Turner 1). In their anthology *Silence and the Word* (2004), Davies, Turner and their contributors explore both the historical roots of apophatic theology in the writings of Christian mystics, and its correlations with Heidegger, Lyotard, Derrida, Bataille, and other continental philosophers. The similarity of their title to Paul Davies' *Eerie Silence* is, as far as I know, a coincidence but a suggestive one.

The numinous constitutes a meeting-place of religion and science. Albert Einstein put it with great eloquence in one his essays:

> Common to all these types [of religion] is the anthropomorphic character of their conception of God. In general, only individuals of exceptional endowments, and exceptionally high-minded communities, rise to any considerable extent above this level. But there is a third stage of religious experience which belongs to all of them, even though it is rarely found in a pure form: I shall call it cosmic religious feeling. It is very difficult to elucidate this feeling to anyone who is entirely without it, especially as there is no anthropomorphic conception of God corresponding to it. The individual feels the futility of human desires and aims and the sublimity and marvelous order which reveal themselves both in nature and in the world of thought. Individual existence impresses him as a sort of prison and he wants to experience the universe as a single significant whole ... The religious geniuses of all ages have been distinguished by this kind of religious feeling, which knows no dogma and no God conceived in man's image; so that there can be no church whose central teachings are based on it. … In my view, it is the most important function of art and science to awaken this feeling and keep it alive in those who are receptive to it. (Einstein 38)

A similar view of the sublimity of science was articulated by Olaf Stapledon (1886–1950), the author of SF classics *Star Maker* (1937) and *Last and First Men* (1930). Piously denounced by C.S. Lewis for his naturalistic views, Stapledon nevertheless freely borrowed from religious iconography to represent human encounter with the cosmic Other. He writes in the Preface to *Star Maker*:

> At the risk of raising thunder both on the Left and the Right, I have occasionally used certain ideas and words derived from religion, and I have tried to interpret them in relation to modern needs. The valuable, though much damaged words "spiritual" and "worship" … are here intended to suggest an experience which the Right is apt to pervert and the Left to misconceive. This experience, I should say, involves detachment from all private, all social, all racial ends… (Preface).

His artistic solution to the problem of representing the unrepresentable is the opposite of Sagan: Stapledon's novel is written in the modality

of future history, with an extremely wide angle of vision that is gradually broadening from our planet, to numerous alien civilizations, to a sort of pan-cosmic mind, and to its encounter with the transcendent Star Maker. The narrative "I" is a shifting signifier that encompasses both the implied author and the collective of which he is a small part. If the novel fails, it does so in a way opposite to Sagan's: by inflating the narrative sphere so much that human concepts become patently inadequate. But a writer cannot write outside language, and so the gap between the ineffable subject matter and the limited narrative means at Stapledon's disposal yawns ever wider. Yet the end of the novel turns even this gap to its artistic advantage. "Barren, barren and trivial are these words. But not barren the experience." Stapledon reaches for a kind of poetics, in which disintegration of language, obscurity, and silence are signposts toward the sublime. Lyotard, following Kant, describes this poetics as:

> …the impotence of the imagination attests a contrario to an imagination striving to figure even that which cannot be figured … and that furthermore the inadequacy of the images is a negative sign of the immense power of ideas … At the edge of the break, infinity, or absoluteness of the Idea can be revealed in what Kant calls a negative presentation, or even a non-presentation. (Lyotard 1991: 98)

SF, however, cannot adopt wholesale the avant-garde poetics of the sublime, no more than it can commit fully to apophatic theology. The first is precluded by the inherited conventions of the genre; the second by its quasi-scientific ethos. Chu argues that SF, in trying to articulate the ineffable, is close to poetry. Nevertheless, SF is a narrative genre, with a strong tradition of dynamic plots and traditional closures inherited from its pop-culture roots. While there is a great deal of interpenetration between postmodernist and avant-garde fiction and SF, they are not the same (see McHale 1992; Gomel 2010). SF develops its own narrative poetics, which blends influences from many diverse sources.

In contemporary SF, the poetics of the sublime may coexist with the narrative conventions of realism. Similarly, the genre's search for the numinous may coexist with secular humanism. The interaction and interpenetration of these diverse narrative and ideological frames generates the richness and diversity of literary SF. Its aliens may be pale imitations of Sky Daddy, demons in spacesuits, or angels in flying saucers. Or they may be something else entirely, something Other.

"What are we?"

Humans and other animals

In his useful summary of the core concepts of humanism, Tony Davies writes:

> We might call this the myth of essential and universal Man: essential because humanity – human-ness – is the inseparable and central essence, the defining quality, of human beings; universal because that essential humanity is shared by all human beings, of whatever time or place. (24)

The reference to the "myth of essential and universal Man" echoes Roland Barthes' mockery of "Adamism" in his *Mythologies* (1957). Barthes argued that humanism is blind to the historicity of human behavior and ethics. He drew upon Nietzsche's trenchant critique in *Human, All Too Human* (1880) of the way of thought that regards "Man" as "something that remains constant in the midst of all flux, as a sure measure of things" (Nietzsche). In fact, as Barthes pointed out, "Man" is a political fiction.

Philosophical and ideological critique of humanism intensified in the 1960s and 1970s, conducted by a generation of continental philosophers who signed a "Warrant for the death of Man" (Badmington 7). These philosophers – Louis Althusser, Michel Foucault, and Jean-François Lyotard – continued the earlier tradition of Nietzsche and Heidegger. A striking statement in Michel Foucault's *The Order of Things* encapsulates their attitude: ''It is comforting, however, and a source of profound relief to think that man is only a recent invention, a figure not yet two centuries old, a new wrinkle in our knowledge, and that he will disappear again as soon as that knowledge has discovered a new form'' (1974: xviii).

The critique of humanism was based on privileging the supra-human networks of knowledge and power over the individual, and on "decentering" autonomous agency. The latter was seen as an epiphenomenon of social and psychological processes that either exceed or evade conscious control. In *The Inhuman* Lyotard asked a rhetorical question: ''what if human beings, in humanism's sense of the word, were in the process of, constrained into, becoming inhuman?''(2). His answer was that the universal Man had never existed in the first place, since "what is proper to humankind'' is "inhabited'' by the inhumanity of the social system as well as by the secret otherness of the unconscious, "of

which the soul is hostage" (ibid.). Humanism was seen primarily as an ideological construct whose not-so-hidden purpose is to justify western dominance, patriarchy, and capitalism.

The ideological critique of humanism was later elaborated by feminist scholars Donna Haraway and N. Katherine Hayles. Both saw posthumanism as intertwined with the progressive movements of the day. In Donna Haraway's influential "The Cyborg Manifesto," the posthuman (or "the cyborg" as she calls it) is a new modality of human subjectivity linked to a utopian, socialist-feminist remaking of the world. Haraway conceptualizes the cyborg as "a cybernetic organism, a hybrid of machine and organism, a creature of social reality as well as a creature of fiction. Social reality is lived social relations, our most important political construction, a world-changing fiction" (1991: 149). Cyborg is a social metaphor that represents the posthuman subject as polymorphous, fragmented, multiple, transcending the dichotomies of organic and inorganic, human and animal, male and female. N. Katherine Hayles, in *How We Became Posthuman* (1991), links the philosophical/political questioning of humanism with the sweeping advances in science, particularly in cybernetics, genetic engineering, and neuropsychology, which force us to abandon the bankrupt notion of "a universal human nature". She cautions against the uncritical acceptance of these advances, while still insisting that posthumanism has progressive social implications, especially in relation to the rights of women and minorities that have been traditionally excluded from the ethnocentric definition of Man.

The progressive implications of posthumanism have been championed by the animal rights movement. Peter Singer's highly influential *Animal Liberation* (1975) drew a parallel between racism and anthropocentrism:

> The racist violates the principle of equality by giving greater weight to the interests of members of his own race … Similarly the speciesist allows the interests of his own species to override the greater interests of members of other species. The pattern is identical in each case. (Singer 1975: 9)

Humanism privileges humanity over other animals for the same ethically invalid reasons men have been privileged over women or whites over blacks. In his debate with Richard Posner (2001), Singer succinctly summarized this point:

> What ethically significant feature can there be that all human beings but no nonhuman animals possess? We like to distinguish ourselves

> from animals by saying that only humans are rational, can use language, are self-aware, or are autonomous. But these abilities, significant as they are, do not enable us to draw the requisite line between all humans and nonhuman animals. For there are many humans who are not rational, self-aware, or autonomous, and who have no language ... Like racists and sexists, speciesists say that the boundary of their own group is also a boundary that marks off the most valuable beings from all the rest. (Singer 2001)

However, there is a problem here. Just as he is gleefully demolishing our taken-for-granted ethical intuitions ("*of course*, babies are more valuable than pigs!"), Singer falls back onto another unexamined assumption: that we should treat everybody equally or fairly. Who says? If speciesism is bad because racism is bad, on what grounds can we oppose the latter without invoking some version of *human* rights? And if we do, how do we square it with the critique of humanism?

The alliance between posthumanism and progressive politics is shaky because the former has the potential to undermine the sacred values of the latter. These values include human rights, equality, non-violence, cooperation, and democracy. But as Tony Davies reminds his readers, the genealogy of posthumanism prominently features two philosophers forever tainted by their association with Nazism: Friedrich Nietzsche and Martin Heidegger. And if Nietzsche can be rescued from this stigma by the fact that he died when Hitler was 11 years old, no such alibi can be offered for Heidegger who was a conscious and articulate supporter of the Nazi project of remaking humanity. In response to the horrors of the Holocaust, philosophers such as Adorno and Horkheimer blamed humanism and the Enlightenment. But insofar as the main project of both Nazism and Communism was to create a New Man, should they be not seen as varieties of posthumanism? And if so, on what grounds can they be condemned?

Davies highlights the contradiction between the philosophy and politics of posthumanism in the second half of the last century: "At the same time, even as its theoretical stock crashed, the rhetorical repertoire of humanism continued to be used without embarrassment, even by the most intransigent antihumanists" (61). He offers no resolution to this contradiction, caught between his political sympathies for anti-colonialism, feminism, and other emancipatory movements on the one hand, and his theoretical acceptance of posthumanism on the other. Similarly, Thomas Foster argues that posthumanism may function politically in two very different ways. There is the argument that "posthumanism

has critical potential, that it is or can be part of struggles for freedom and social justice, and the argument that posthumanism dismisses such struggles or even makes them obsolete" (xxvii). Foster takes his stand with "the struggles for freedom and social justice", using posthumanism as a political tool. But it seems to be a rather clumsy tool if it can be equally well used to undercut these struggles by making them "obsolete". Indeed, how can we logically defend the universality of human rights in a posthuman world? Felipe Fernandez-Armesto succinctly summarizes the paradox created by the growing gap between the philosophy and the politics of posthumanism:

> Over the last thirty or forty years, we have invested an enormous amount of thought, emotion, treasure, and blood in what we call human values, human rights, the defense of human dignity and of human rights. Over the same period, quietly but devastatingly, science and philosophy have combined to undermine our traditional concept of humankind. (2004: 1)

But a support for beleaguered humanism has come from an unexpected source. Reviled by religious conservatives for its supposed immorality and relativism, a certain interpretation of evolutionary theory now seems poised to take over the vacant throne of the Universal Man.

Darwin the humanist?

The religious right's favorite jibe at evolutionary theory is that it leads to moral nihilism. Indeed, their pre-eminent bête noire, Richard Dawkins pithily summarizes the Darwinian view in *River Out of Eden:* "The universe we observe has precisely the properties we should expect if there is, at bottom, no design, no purpose, no evil and no good, nothing but blind, pitiless indifference" (8). This is in line with the argument advanced by T.H. Huxley in "Evolution and Ethics" (1895) that natural selection is an amoral force and offers no foundation – positive or negative – for ethics.

Recently, however, a slew of science writers and skeptics have taken up the challenge of developing what Michael Shermer calls "a science of good and evil". Suggesting that our moral intuitions have an evolutionary basis – a reasonable if unproven supposition – they argue that moral universals are grounded in evolutionary adaptation: ''moral sentiments and behaviors exist beyond us, as products of an impersonal force called evolution'' and are, therefore, binding (Shermer 19). Sam Harris, in

The Moral Landscape: How Science Can Determine Human Values (2010), boldly claims that science – especially neurobiology and evolutionary psychology – should supplant ethics and religion in prescribing norms for moral behavior, which are to be based on "the totality of scientific facts that govern the range of conscious experience that are possible for us" (49).

The pitfalls of this view have been pointed out by critics: the confusion of "is" with "ought" (naturalistic fallacy); the strident prescriptive tone; and most of all, dubious science. What we do know about evolution seems to be more in line with Huxley's agnosticism regarding the origin of values. As Michael Ruse puts it, "Darwinian evolutionary biology is nonprogressive, pointing away from the possibility of our knowing objective morality ... I argue strongly that Darwinian evolutionary theory leads one to a moral skepticism, a kind of moral nonrealism" (25). But perhaps the greatest objection to "the science of good and evil" is that its conclusions amount to a long-winded restatement of the Golden Rule. Do we really need Darwinism to boost up a Sunday-school lesson: "Do not do unto others what is hateful to you … is the foundation of all human interactions" (Shermer 25)?

The universality of the Golden Rule assumes essential similarity between the moral agents involved in the interaction because it presupposes the reciprocal transparency of their minds: I can safely gauge another entity's preferences on the basis of my own, knowing in advance that what is "hateful" to me is equally hateful to the Other. The Golden Rule may work for human beings because we are essentially alike. But will it work for agents whose distinguishing feature is that they are *unlike* us?

Political battles of the past have extended rights to previously disenfranchised groups, such as women, gays, minorities, and the disabled, by emphasizing their essential humanity. Political battles of the present with regard to such issues as abortion, animal rights or protection of the environment, still utilize the same strategy, so the side that champions the "rights" of zygotes, primates, or the biosphere as a whole rhetorically humanizes these entities, while the opposing side restricts the sphere of ethical consideration to members of the species *Homo sapiens sapiens* or some subset thereof. But the issue at hand becomes the issue of similarity: who is sufficiently "like us" to benefit from the same ethical consideration we extend to the members of our own group. Humanism is based on "codes of conduct which are devised by humans for humans" (Fowler 189). And to be within the reach of these codes, one has to be biologically or rhetorically human, as defined by a

particular construction of humanity: hence Harris' strange notion that morality should be based on the scientifically defined "well-being", despite the obvious fact that there is no cross-cultural (let alone cross-species) consensus on what well-being is. Ethics is absorbed into the symbolic economy of the Same.

The Golden Rule is based on one human capacity that is unquestionably biologically determined: empathy. Neuropsychology claims that the basis of empathy is "Theory of Mind": the hard-wired propensity of human beings to gauge others' inner states on the basis of their own. Self-awareness, the human capacity to monitor oneself, enables projecting one's own interiority upon others. As Keenan et al. explain it: "I *know* my own thoughts in any given situation, so I can *infer* that another person has similar thoughts in a similar situation" (Keenan et al. 78). Theory of Mind is intimately connected with the Golden Rule, so that the latter may even be seen as the cultural codification of the former. The rights we grant to others are a projection of the rights we want for ourselves. "True empathy involves the abilities of Theory of Mind, understanding what another is feeling and relating it to our own experience" (Keenan et al. 243).

Neurologically atypical humans, as well as most animals, are incapable of ascribing mental and emotional states to others, exhibiting what (in cases of autism) has been called "mind-blindness" (Carruthers 257). Theory of Mind is not infallible. Putting aside for the moment the significant neurological variations within humanity, it is clear that application of the Golden Rule often backfires across cultures and almost always backfires in dealing with other animal species. But even if it does not, reliance on human nature to underwrite ethics can lead to very problematic results. In Stanislaw Lem's hilarious story "Altruizine", a benevolent robot, wishing to improve humanity's lot, doctors the water supply with a drug that allows one literally to feel another's pain or pleasure: the "science of good and evil" in action! According to its manufacturer's instructions, Altruizine "will insure the untrammeled reign of Brotherhood, Cooperation and Compassion in any society" (Lem 1974: 272). The results are universal mayhem, since the neighbors of a headache sufferer rush in to put him out of his misery, doctors are incapacitated by a flood of empathy, and unhappiness is regarded as a crime.

In his diatribe against biotechnology and its potential to usher in the era of posthumanism, Francis Fukuyama insists that "nature itself, and in particular human nature, has a special role in defining for us what is right and wrong, just and unjust, important and

unimportant" (2002: 7). In the absence of a transcendental foundation for ethics, human nature is the last resort of the Golden Rule. But as Fukuyama correctly points out, genetic engineering, neuropharmacology and social processes have already modified our definition of humanity. Sociobiology is caught in a double bind: since human beings are now capable of taking control of their own evolution, who is to say that we should not override some aspects of our neural architecture, including Theory of Mind? In fact, SF has already considered such a possibility: in Greg Egan's *Distress* (1995) and Peter Watts' *Blindsight* (2006), discussed in Chapter 5. No matter how appealing Harris' recourse to science as the foundation of morality may look, it is no more persuasive than the old-fashioned religious humanism he critiques.

Speaking of/as the Other

Confronted with the crisis of humanism, postmodern ethics has turned toward "the opening to alterity" (Easterbrook 384). This "opening" is often couched in terms borrowed from Emmanuel Levinas' ethics of the humility in the face of the Other. In Levinas, the "face" is real, not metaphorical: "The other man, who at first is part of the world as a whole, somehow pierces through this world by his appearance as face... this face is the place that commands me and this is what I call the word of God in the face" (Levinas 300).

This is a very anthropocentric notion of alterity, "reading life still in terms of an opposition between human and nonhuman, where the human logos of ethics is the defining factor" (Benso 43). There are attempts to go beyond this anthropocentrism. Sylvia Benso suggests that clues to an ethics of the Other lie in a deeper respect for the essential alterity of inanimate objects that cannot be assimilated into the discourse of the Same by being humanized, in "the silent laughter of the things themselves whose arcane profundity could not be obliterated by their transfiguration into the eternal world of essences" (23). Lyotard draws attention to "the ungraspable and undeniable 'presence' of a something which is other than mind" (1991: 75). This "other" for Lyotard resides not merely in the obduracy of the material world but also in the elusive alterity of the human psyche, so that humanist subjects are always-already "in the process of, constrained into, becoming inhuman" (2). But any such critiques are limited by the fact that the possibility of ontological alterity is still treated as a metaphor: that is, in discussing the inhuman, "we are in fact re-presenting questions that

have been asked of the human – questions about social injustice, gender discrimination, ethical dilemma, etc." (Yi 2006).

In creating fictional worlds in which ontological alterity is literal and not metaphorical, SF enables us to confront the political and ethical crisis of humanism. In representing entities that are beyond the reach of the Golden Rule and yet are moral agents in their own right (as opposed to animals or the biosphere), SF challenges us to consider that the only ethical response to the nonhuman is to become posthuman, to move beyond the emotional appeal of the face and the seductive tug of empathy and to confront the possibility of radical transformation, even if this transformation truly changes us into "something new and strange".

In his recent argument that literature should be considered a discourse of ethics, David Palumbo-Liu emphasizes the importance of narrative forms in mediating the relationship between the self and the Other: "I suggest … we should think of how literature engenders a space for imagining our relation to others and thinking through why and how this relation exists, historically, politically, ideologically. This in turn creates *new forms of narration and representation*" (14; emphasis in the original). His focus, however, is on realistic forms and he indeed argues that realism still performs an invaluable function in the global age because it can balance self and Other in healthy and politically viable ways by answering the question: "how much 'otherness' is necessary to gain the benefit of being 'exposed' to the lives of others without creating too much distance and alienation from our selves, fragmenting beyond recuperation our sense of reality"? (35). But what if "distance", "alienation" and "fragmenting our sense of reality", instead of undesirable by-products, become the primary goals of the encounter? Then realism becomes patently inadequate, precisely because of its in-built human-centeredness that Palumbo-Liu relies on. Realism can engage our empathy by stimulating Theory of Mind, enabling a peek into another's mental universe. But this mental universe must be commensurate with ours or realism fails: in his discussion of J.M. Coetzee's *Elizabeth Costello*, for example, Palumbo-Liu shows how the ethics and aesthetics of humanism are dissolved by the influx of otherness: "the very thing that binds humans together is shattered, as all living beings, including nonhuman animals, now qualify for the position in the same paradigm" (49).

But regulating otherness is a rearguard action in the age of global politics, science, and the Internet. As Fukuyama acknowledges, posthumanism is here to stay, no matter how much we would like to cling to human nature. So perhaps a better way forward would be to

re-examine *all* the implications of humanism, including the ethics of empathy and the politics of human rights. This is not to discard them necessarily but to recognize that humanity is in the process of flux and self-transformation, and that what fits us today may not necessarily fit us tomorrow. Instead of containing alterity, literature may be seen as preparing us for the moment in which we become others to ourselves. And realism, even in the expanded version that includes Coetzee and Ishiguro's *Never Let Me Go* (2005), cannot go where no humanist has gone before. But SF can.

Ethics of metamorphosis

Bernard Waldenfels suggests that the alien should be seen not so much as a positive entity but as an invitation to a change of the self:

> In order to avoid the dilemma of either dissolving the alien by appropriation or dissolving my own self by expropriation, I offer not a better definition of alien but rather a certain change of attitude. Instead of asking what the alien is or how it functions, I take the alien as what we respond to and what we must respond to, whatever we say or do. That means that we can speak of the alien only in an indirect way, understanding it as something other and more than our familiar conceptions and projects suggest. (Waldenfels 42)

This invitation of the alien corresponds to the mystical notion of transcendence, in which the numinous is an opening to what lies beyond and outside the sphere of humanity:

> This approach seeks to venture into the domains of what we might tentatively call a negative metaphysics – more precisely, a minimal theology – whose contour and contents are less residue of metaphysics, with its natural or onto-theology, than an exploration of the unprecedented, the encounter, and the new, as it takes shape here and now. (de Vries 13)

In appropriating the metaphors and plots of such "negative metaphysics", SF points to an *ethics of ontological transformation* as an alternative to the humanist ethics of the Golden Rule. In the encounter with an alien agency, humanity is confronted with the deceptive nature of Theory of Mind, which forces us to see similarity in difference. But the very failure to understand the Other may create the conditions for

transcending the self. In interacting with the nonhuman, we become posthuman.

Posthumanism is not an identity or an ideology but a willingness to abandon both. It is an ethical response to the radical otherness of the Universe and to the dynamic, self-creating nature of our species. Fictional aliens are merely the shorthand we use to indicate what lies beyond the self-imposed boundaries of our humanity. In inviting us to step outside these boundaries, in asking provocative questions about our nature, SF has an important, indeed a foundational, role.

Or rather, it *can* have an important role. SF is a popular genre and it often reflects the dominant ideological and moral assumptions of its time and place. Many novels of alien encounters end up reinforcing anthropocentrism and even ethnocentrism. Alien invasion has been used as a political allegory to excoriate a *threat du jour*, be it Communism or terrorism. Even alien-friendly texts, such as Ursula Le Guin's *The Word for World is Forest* or Octavia Butler's *Lilith's Brood*, often shore up humanism (see Chapter 4). It is done not just through explicit statements but more importantly, through the narrative strategies borrowed from psychological realism, such as the first-person narration, a sympathetic human protagonist, and focalization through an alien character that instantly humanizes it, regardless of its bodily shape. A poetics of radical alterity and an ethics of ontological transformation structure only a small subset of alien-encounter SF.

But the potential still exists, even within the most xenophobic and/or humanistic texts. Even when the alien is narratively domesticated, there remains a residue of alterity which warps the fabric of the text, creating shifts and lacunae through which the acid of the nonhuman seeps into humanity. The structural aspect of SF is inextricably bound with its ethical aspect. Thus, my special focus in this book is on narrative strategies of representing the alien, which I see as integral to the meaning of the text.

Confrontation, assimilation, transformation

I will discuss three main scenarios of alien encounter: *confrontation*, *assimilation*, and *transformation*. Each scenario has two chapters dedicated to it. Thus, the book is divided into three parts and six chapters. Chapter 5 consists of three shorter subchapters.

Since *The War of the Worlds*, a violent confrontation has been the most popular SF plot of alien encounter. Whether, as in Wells, humanity is

overrun by an alien invasion or as in Heinlein's *Starship Troopers* (1959), humans and aliens clash in space, the confrontation itself unfolds according to the time-tested formula of war. In war each party has specific interests and goals, which it strives to achieve by violence; and these interests and goals are comprehensible to the other party, though their moral valuation is reversed. War generates a simple moral template that makes the difference between "good" and "evil" stark and absolute; it intensifies the bonds of affection and solidarity among the members of each warring side and cements their collective identities. War is not a negation of the Golden Rule but its logical outcome.

In Chapter 1, "'The Force that Gives us Meaning': Alien Invasion and Search for Redemption," I discuss the most familiar form of alien encounter: invasion. Considering Wells' *The War of the Worlds* as the narrative and ideological template of this scenario, I isolate three aspects of war: the humanist, the apocalyptic, and the sublime. The interaction of these three aspects is traced in post-Wells novels of alien invasion, in which violence becomes a way to shore up the foundations of humanism, shaken by the encounter with the alien. The chapter addresses multiple texts, including novels by Robert Heinlein, Larry Niven and Jerry Pournelle, Scott Mackay and others. The ones that are discussed at length are Greg Bear's *The Forge of God* (1987) and *Anvil of Stars* (1992), *Usurper of the Sun* by Housuke Nojiri (2002), and Stephen Wallenfels' *POD* (2012).

Chapter 2, "Across the Universe: Cosmic Humanism and Escape from History," addresses a body of works that seems the exact opposite of the space wars and bloody invasions of Anglo-American SF. Soviet SF, exemplified by such writers as Ivan Efremov and the Strugatsky brothers, constitutes a coherent genre that is irreducible either to propaganda or to dissent; instead, it is an expression of the dynamic worldview of Soviet civilization. There is almost never a violent confrontation with aliens in Soviet SF; instead, the default scenario is of peaceful cooperation and mutual understanding. And yet this programmatic humanism is as restrictive as its militaristic counterpart, erasing the Other through its obligatory anthropocentrism. A systematic study of the image of the alien in Soviet SF has never been undertaken in the West. This chapter is a sketch of such a study, focusing on Ivan Efremov's *Andromeda Nebula* (1957) and "Cor Serpentis" (1963), and on the oeuvre of the Strugatsky brothers, particularly *Roadside Picnic* (1972). Efremov's works constitute the fullest articulation of Soviet humanism, whose ethics of solidarity is based on the denial of difference. I will show how the ideological tensions within this ideology warp the narrative fabric of Efremov's

novels. And I will trace the artistic and ideological development of the Strugatsky brothers, from anthropocentrism to a subtle and challenging representation of radical alterity, and read their alien-encounter novels as a critique of utopian humanism.

Assimilation, seemingly, defies the militaristic ethos of confrontation by offering a peaceful alternative: merging with the alien. It is the preferred scenario of feminist and postcolonial SF, epitomized by Octavia Butler's classic *Lilith's Brood* trilogy (1987–89). But just like confrontation, assimilation presupposes an essential similarity between humans and aliens. Its humanist ethics is inscribed in the narrative tools it deploys: a *bildungsroman* plot, deep focalization, and first-person narration.

Just how inadequate these tools are to representing a posthuman subject that would result from the merging of human and alien is shown in chapter 3, "The Contagion of Posthumanity: Alien Infestation and the Paradox of Subjectivity." This chapter considers representations of posthuman subjectivity in a range of texts that deal with a takeover of human beings by aliens. They include John Campbell's "Who Goes There?" (1938) and Robert Heinlein's *The Puppet Masters* (1951), as well as more recent novels, such as Scott Sigler's *Infected* (2006) and *Contagious* (2008). This particular form of assimilation of human to alien is invariably viewed as negative and horrifying, occasioning such a violent backlash that these texts have often been read merely as allegories of political paranoia. But in fact, they are far more complex, both thematically and narratively. While the alien puppet master is represented as opaque and incomprehensible, its takeover of a human host results in a posthuman "hybrid" whose subjectivity is accessed by ordinary strategies of focalization, first-person narration and authorial description. But these strategies are so patently inadequate to the posthuman that the result is a narrative chaos, which is barely contained by the violent plot of purification. In parallel to the narrative disintegration of the human subject, humanist ethics is also subjected to impossible strains. The alien-possessed subjects are placed outside the boundaries of the ethical community, persecuted and exterminated with no mercy. And yet, they are still outwardly human and so the violence against them brings into the open all the paradoxes of humanism, in which empathy is triggered by humanness, which is demarcated by empathy. Theory of Mind, as deployed in the texts of alien possession, becomes a trap, in which the subject is caught in a hall of mirrors, reflecting back his own face, now seen as the face of a malevolent stranger. If the Golden Rule assumes the Same in the Other, alien possession reveals the Other in the Same.

In Chapter 4, "Human Skins, Alien Masks: Allegories of Postcolonial Guilt," I discuss assimilation in the context of postcolonial SF. On the one hand, such SF is particularly attuned to the problems of humanism, critiquing the politics of cultural imperialism and denial of difference, so often resulting from the attempts to "civilize" non-western societies. But on the other hand, by relying on the rhetoric and ideology of human rights, it performs the same maneuver it condemns, taming the Other rather than defamiliarizing the Same. The chapter will consider this dynamic in Octavia Butler's *Lilith's Brood* trilogy (1987–89), as well as novels by Amy Thomson, Matthew Farrell, Gene Wolfe, and others. It is divided into two parts, following the two main tropes of postcolonialism: mimicry and hybridity. The chapter concludes with a discussion of two novels that critique the anthropocentrism of postcolonial guilt: Michael Bishop's *Transfigurations* (1979) and Paul Park's *Celestis* (1993).

I have chosen not to discuss specifically feminist scenarios of assimilation in the novels by Ursula Le Guin and Naomi Mitchison (*Memoirs of a Spacewoman*, 1962). The reason is simply that these scenarios have been extensively analyzed by such pioneering SF critics as Maureen Barr (*Feminist Fabulation* 1992) and Sarah LeFanu (*In the Chinks of the World Machine* 1988), and addressing them here would swell the chapter beyond any reasonable length. While the issues of gender are unavoidable in discussing Butler and Thomson among others, they are not my focus here.

In narratives of *transformation*, the alien is radically Other, ontologically different, and cognitively inaccessible. Such narratives require a profound revolution in the means of representation, as the narrative repertoire of humanism fails to come to grips with the nonhuman. The alien contact that transforms the human participant(s) not just in body but also in mind constitutes the core of the ethics of metamorphosis. It is the ethics predicated not on empathy but on its failure; not on Theory of Mind but on an inescapable mind-blindness. By opening itself up to the nonhuman, humanity undergoes a profound and irreversible change.

Chapter 5, "The Human Trinity: What Makes us Other?," considers transformative encounters with aliens along the three axes that conventionally define human uniqueness: worship, speech, and self-consciousness. Each subchapter focuses on one or several representative texts that suggest how the radical alterity of the alien can reshape each of these human fundamentals. The transformation that ensues is

not utopian; in some cases, it may appear to us horrifying. And yet, by challenging our moral and ontological intuitions, the SF of transformation defamiliarizes humanism and points a way to transcendence.

Subchapter 5-1, *Homo religiosus*, provides a deeper insight into the interrelation between SF and the universal search for the numinous, addressing such texts as Vercors' *Les Animaux dénaturés* (1952), Arthur C. Clarke's *Childhood's End* (1953), Ian Watson's *Alien Embassy* (1978), Sheri S. Tepper's *Grass* (1989), and Nancy Kress' *Steal Across the Sky* (2009). Each of them approaches the issue of transcendence and the relationship between scientific ethos and religious belief through the prism of alien contact and each, from its own perspective, demonstrates the failure of the anthropocentric notion of godhead to encompass the radical alterity of the Universe.

Subchapter 5-2, *Homo loquens*, focuses on one obvious definition of humanity: capacity to speak a human language (which is qualitatively different from animal forms of communication). It briefly discusses some of the contemporary theories of the origin and uniqueness of language and then looks in detail at three SF texts that go beyond the cliché of the "universal translator" to consider an impact of an alien tongue on human subjectivity: Richard Paul Russo's *The Rosetta Codex* (2005), Ted Chiang's "Story of Your Life" (1998), and China Mièville's *Embassytown* (2011).

Subchapter 5-3, *Homo conscius*, delves into the most intractable and yet the least questioned feature of humanity: self-consciousness. There is no consensus in philosophy or cognitive psychology as to what consciousness is, or even whether it exists at all, even though we regard it as absolutely fundamental to our experience of ourselves. We hardly ever consider the distinction between intelligence and consciousness, and so most SF aliens, even those that are profoundly different from us, are unquestioningly assumed to possess consciousness. This subchapter focuses on one notable exception: Peter Watts' *Blindsight* (2006), a brilliant and unsettling exploration of an alien encounter that transforms humanity out of its existence as a self-conscious species. While this form of posthumanity is hardly an attractive option for most of us, Watts' novel forces us to consider not just the binary of humanism/posthumanism, but the different forms the transcendence of the human condition might take.

Chapter 6, "Stanislaw Lem and the Holocaust of Humanism," focuses on the oeuvre of one of the most significant twentieth-century SF writers, Stanislaw Lem. Lem's contribution to the poetics and philosophy of SF is incalculable, and his own novels of alien contact, such as

Solaris (1961) and *Fiasco* (1986), constitute some of the most profound meditations on the ethics and aesthetics of transformation. This chapter analyzes in depth these two novels, in addition to two others: *Eden* (1959) and *His Master's Voice* (1968). The four novels transpose negative theology into the ethics and ontology of a posthuman age, in which the liberal pieties of secular humanism are revealed as inadequate as the backward nostalgia of religious fundamentalism.

Lem's aliens, such as the Ocean in *Solaris* (1961), the doublers in *Eden* and the Quintans in *Fiasco* (1986), are nonhumanoid entities whose actions resist the mirror effect of Theory of Mind. The aliens' actions, such as the Quintans' refusal of contact which destroys their planet and the Ocean's creation of pseudo-human simulacra, are neither good nor evil; they are simply incomprehensible. And yet there is an agency behind these actions but it is strangely opaque, repelling empathy and indignation alike. The Golden Rule is shown to be not just irrelevant but actively harmful in dealing with the Other. However, Lem's novels indicate that ethics is possible beyond the Golden Rule if humanity opens itself up to the transformative power of the nonhuman.

A brief note on the choice of texts. Literary SF possesses an almost inexhaustible richness, and new and interesting publications are appearing almost daily. This book is neither the history of the genre nor a study of individual authors and/or periods. It is an argument and a typology, which is both structural and thematic. For almost any text (with the exceptions of chapters 2 and 6), another one could be substituted. And with so many studies focusing on the "canon" of the genre, (Ursula Le Guin, Philip K. Dick, William Gibson, Samuel Delany) I have made a conscious choice to reach out to other, less-known writers and texts, both to familiarize the reader with the breadth of the genre and to bring critical attention to bear upon new material.

The ethical, political, and philosophical implications of a text are not always commensurable with its aesthetic worth. All too often, criticism focuses only on canonical texts while dismissing 90 percent of textual productions as unworthy of attention. But, as many scholars have pointed out, in postmodernity the distinction between the canonical and non-canonical is largely meaningless (McHale 1992). Some books are, of course, better than others; I make no claim that, say, Lem and Sigler are equally good writers. But because of the vastly increased volume of culturally circulating narratives, they all participate in what Mikhail Bakhtin would call the "polyphony" of textual production. The cultural voices I trace can be located in specific texts but they do not

originate there; rather, the texts become nodes in the tangled skeins of ethical, political and philosophical discourses of postmodernity.

Any scholar who says that her choice of subject is not influenced by personal taste is being less than frank. I make no such claim. All the texts discussed in the book engaged my interest, whether I agreed or (most often) disagreed with the author's conclusions. I hope the reader will feel the same.