CHAPTER 4

A Comedy of Survival

Narrative Progression and the Rhetoric of Climate Change in Ian McEwan's Solar

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AS URSULA HEISE argues, perceptions of climate change and other environmental risks are shaped by narrative modes and rhetorical tropes, which serve as a means of "organizing information about risks into intelligible and meaningful stories" (138). Consequently, classical figures, tropes, and allegorical story models, such as pastoral, apocalypse, irony, tragedy, and comedy, retain their vitality when writers try to come to terms with climate change. Based on these premises, the rhetorical approach to narrative appears relevant when we are studying the ways in which fiction communicates ideas and values related to environmental phenomena. In this regard, the rhetorical emphasis in narrative studies can also be seen in the service of ecocritical or other politically engaged literary studies.

In this essay, I read Ian McEwan's climate change novel *Solar* (2010) as a fictional narrative taking part in the heated discussion about the problems and possibilities of narrative relative to large-scale environmental problems. In *Solar,* the human race's struggle for survival takes the form of an environmental comedy in which the protagonist, scientist Michael Beard, tries to save the planet—and especially his own skin—by developing new technologies for utilizing solar energy. The character's progression in the narrative is both negative and positive, just as the novel itself can be read either in a comic or in a tragic mode; Beard's body collapses while his ethical vision matures, and in the global discussion, climate change develops from an apocalyptic

story into an aching reality. Indeed, McEwan's rhetorical narrative is built on complex negotiations, beginning with the challenging questions that the very topic of climate change poses: first, how does the novelist's traditional toolbox approach a problem of such global proportions, and second, should we even look to fictional narratives for answers to real environmental problems?

More specifically, I argue that despite being cast in a strongly mimetic mode in its plotting and characterization, *Solar* is a *metarhetorical* narrative about climate change, meaning that the novel extensively deals with the many-sided rhetorical dialogue associated with the climate-conscious talk. Just as the novel as a rhetorical and dialogical form complicates this talk, the ecocritical concern about the heating planet complicates the premises of a human-centered narrative. The novel also critically asks whether climate change is a *narrative* and whether the solution to this larger-than-human-life question is telling better and better *stories* that we can agree on—a contention that is sometimes voiced in literary-theoretical approaches to the Anthropocene. Some critics have found McEwan's comic and allegorical style somewhat disappointing, suggesting that environmental fictions were supposed to deal with environmental issues seriously. In my reading, Michael Beard, McEwan's ethically deficient protagonist, is a central part of the novel's rhetorical aim, as this mimetic-thematic-synthetic character holds up a mirror to human behavior in our age of the Anthropocene. After discussing the novel's style and some responses to it as well as Beard's character and its progression, I will focus on McEwan's way of using fictional narrative as a rhetorical form that can say something worthwhile about climate change. In this regard, my argument is related to the recent rhetorical conception of fictionality as a serious mode of discourse about the actual world.

When reading *Solar* in terms of its environmental rhetoric, I pay attention to the novel's narrative progression and its way of handling the complex issue of climate change through plot and characterization. As the narrative progresses, there are changes not only in the world's climate and global politics but in the protagonist's life as well. According to the rhetorical theory of narrative, this mimetic aspect of fiction—the life-like characters and their actions—is a central means of engaging the reader and addressing ethical issues. James Phelan employs the term *progression* to refer to "a narrative as a dynamic event, one that must move, in both its telling and its reception, through time," so that in examining progression "we are concerned with how authors generate, sustain, develop, and resolve readers' interests in narrative" (*Reading People, Reading Plots* 15). From the perspective of the rhetorical theory of narrative, readers' judgments of the narrative progression also depend on their individual ethical investments in characters and ideas.

While I focus on *Solar*'s narrative progression in my analysis, my overall aim is to merge narrative theory and ecocriticism in order to show how their methodological combination might help us read the rhetoric of climate change in fiction. In effect, I argue that ecocritics need to study specific rhetorical designs in fiction just as narratologists should consider the ways in which fiction communicates ideas and values about our living environment. In my view, the concepts of the rhetorical theory of narrative helpfully delineate the communicative designs and purposes of a fictional narrative such as *Solar.*

POET AND PHYSICIST: WORLDS OF ART AND SCIENCE IN IAN MCEWAN'S FICTION

Even before *Solar* was published, prominent ecocritic Greg Garrard made reference to Ian McEwan's forthcoming novel despite not having yet had a chance to read it. In these anticipatory remarks, Garrard mentions that McEwan's earlier work—*The Child in Time* (1987), for instance—provides "an implicit, and possibly deliberate, critique of many of the major ethical assumptions in ecocriticism" ("Ian McEwan's Next Novel" 696). In a subsequent essay on the published book, Garrard writes that *Solar* was "eagerly anticipated by those who hoped for a dramatic shift in public consciousness of the issue [i.e. climate change]" but that the finished product only confirms a widely held assumption about the realist novel as a mode ill-suited to this particular topic ("*Solar*: Apocalypse Not" 123). But the critic's disappointment perhaps stems more from execution than the novel as form. Garrard clarifies that the novel is "limited . . . by McEwan's choice of satirical allegory as a genre" (123). The rather unenthusiastic critical response to *Solar* among ecocritics and other readers appears to focus on McEwan's light-hearted approach to a grave issue. Another challenge for ecocritical and narratological readings alike involves the indeterminacy, even after examining the novel's narrative structure, rhetorical purpose, and aesthetic design, of the implied author's actual stance on climate change issues. In *Solar,* the implied author's views are refracted through the minds and discourse of characters and therefore remain elusive.

Apparently, McEwan's use of comedic, satiric, and allegorical story models is a choice rather unexpected from environmental fiction. Yet, instead of as theoretical "top-down" models, we should aim to judge individual works according to their specific purposes and achievements (Phelan, *Experiencing Fiction* 142). As Gary Johnson maintains, speaking of a rhetorically oriented approach to allegory, "rather than beginning with some ineffable standard of aesthetic merit to which a particular work either mysteriously (and sometimes

inexplicably) rises or fails to [*sic*], the rhetorical critic starts by asking what an author's purpose in writing that work might have been" (21). Accordingly, I read *Solar*'s purpose as a kind of parody of environmental literary studies' overly pessimistic view of the human impact on nature as well as its overly optimistic notion that literary art can effect change. In this, I echo Astrid Bracke, who also notes McEwan's "satire of . . . ecocritical premises" (433). The novel is peopled with "merry" artists who are merry *because* they are "worried about global warming" (McEwan 67). Garrard argues, quite rightly to my mind, that "environmental literature and ecocriticism have typically embodied an unexamined moral idealism" ("Ian McEwan's Next Novel" 710). It has been a crucial part of ecocriticism not only to analyze literary texts but also—and even more so—to advocate for environmental awareness and social change. But the protagonist of *Solar,* a hardcore advocate of quantum physics, has doubts:

> Beard would not have believed it possible that he would be in a room drinking with so many seized by the same particular assumption, that it was art in its highest forms, poetry, sculpture, dance, abstract music, conceptual art, that would lift climate change as a subject, gild it, palpate it, reveal all the horror and lost beauty and awesome threat, and inspire the public to take thought, take action, or demand it of others. He sat in silent wonder. Idealism was so alien to his nature that he could not raise an objection. He was in new territory, among a friendly tribe of exotics. (77)

The Nobel Prize-winning scientist Michael Beard, who cares for neither art nor climate change and cares "even less for art about climate change," is happily ignorant of the fact that he is himself a character in a novel that is a modest piece of art about climate change (73). Even before this scene, Beard has been baffled by the suggestion that he consider art as one way of thinking about climate change: "There were novels Aldous wanted him to read—novels!—. . . and documentaries about climate change" (28–29). The space is now open for the politics and rhetoric of climate change, but as Dipesh Chakrabarty suggests, it is open "as much to science and technology as to rhetoric, art, media, and arguments and conflicts conducted through a variety of means" ("Postcolonial Studies" 9). In Beard's view, however, while fiction may have some rhetorical purpose of "lifting," "gilding," and "palpating" climate change, art is not serious enough to concern him.[1]

1. In an interview with *the Wall Street Journal,* McEwan maintains that the topic of climate change is "a subject impacted with hard science: physics, climate science, statistics, graphs, measurements—things that are fairly hostile to a novel" (Alter).

McEwan's novels often test and challenge clashing worldviews of science and poetry.[2] David Herman, using McEwan's novella *On Chesil Beach* (2007) as a test case, draws attention to narratives' role in wider discursive contexts; he writes that "narratives do not merely evoke worlds but also intervene in a field of discourses, a range of representational strategies, a constellation of ways of seeing—and sometimes a set of competing narratives" (Herman et al. 17). In McEwan's subsequent work, it is scientific (especially neuropsychological) explanations that have gained prominence; for example, the preference of science over poetry is a motif governing *Saturday* (2005).

In the course of Beard's lectures on solar energy to his academic audiences and his potential sponsors and investors, *Solar* becomes filled with discourses representing natural science, cognitive psychology, capitalism, and humanism. The floor is not occupied solely by Beard, for "the point of view of the audience" is also given voice (138). Obviously, we should be careful not to conflate this fictional and characterized audience's voice with the discourse-level communication between the implied author and the authorial audience—although it is possible that the fictional audience's views on climate change reflect those of the *actual* audience. The narrative, often using free indirect discourse and thus merging the narrator's voice with the character's viewpoint, explains that "Beard had heard rumours that strange ideas were commonplace among the liberal-arts departments" and that "humanities students were routinely taught that science was just one more belief system, no more or less truthful than religion or astrology" (132). Instead, Beard situates himself in another, "objectivist" camp that "could not accept that there was no reality without an observer" and that "believed the world existed independently of the language that described it" (65, 139). Beard remains skeptical of the postmodernist ideas espoused by cultural scholars—representing the abovementioned point of view of the audience—who dismiss facts of natural science as "socially constructed" and treat climate change and other worldwide environmental problems as only stories and narratives (131). He feels that "people who kept on about *narrative* tended to have a squiffy view of reality, believing all versions of it to be of equal value" (147; emphasis added). Whereas McEwan's previous work expresses skepticism about the explanatory power of poetry, in *Solar* he challenges literary scholars to reflect on unexamined celebration of narrative's possibilities. The text invites the actual audience of the novel—including the

2. McEwan suggests that science parallels literature as a means by which the world can be understood but that there are "insights which science has brought us and which literature could never equal," just as "there are many complex facets of experience for which science has no language and literature does" (Cook, Groes, and Sage 128).

literary theorist—to join debates about the validity of narrative approaches to nature.[3]

Skepticism notwithstanding, however, *Solar* itself is a thoroughly and self-consciously literary text. Even Beard's scientific work on light, space, and power actually goes back to his reading of John Milton. However, Beard does not realize Book One of *Paradise Lost* anticipates his doomed mission to harness sunlight in the verses beginning "A summer's day; and with the setting sun / Dropt from the zenith, like a falling star" despite quoting a fragment from them: "from morn / to noon he fell" (200). Ironically, Beard does not care for "the arty sort of people" who "intimidated him with literary references he did not understand" and who asked that he "synthesized [his] reading into some kind of aesthetic overview" (197, 202). Through this comical and rhetorical strategy, which makes Beard function as a foil for readers, the novel asks its reader to perform interpretive tasks that Beard himself is incapable of doing or unwilling to do because of his deep scorn for literary studies—that is, to read behind Beard's back for the implied author's views. I would argue that the implied author of *Solar* adopts, and encourages readers to adopt, an ironic and amused stance toward Beard's ethics—at least to a point. Beard also fails to recognize that his initial interest in "the redeeming power of the imagination," as exemplified by Milton's poetry, opens up his own mind, for a short while, to creative innovation of the kind that is needed to produce breakthroughs in the natural sciences (200). These are "daydreams," "manic moments," "episodes that braided the actual with the unreal" (116). Therefore, the celebrated "Beard–Einstein Conflation," which earns him the Nobel Prize in Physics, is the fruit of his youthful mind's imaginative power, almost Miltonic in its way of seeing.

In the narrative progression, Beard's scientific worldview repeatedly clashes with that of artists, as seen in his outraged response to a novelist called Meredith, who suggests that we should bring ethics into the realm of the natural sciences and vice versa: "Let's hear you apply [Heisenberg's Uncertainty Principle] to ethics. Right plus wrong over the square root of two. What the hell does it mean? Nothing!" (77). In Beard's view, physics is a realm purified of ethics and emotion, "Free of human taint, it described a world that

3. Beard, I think, would find the following theoretical assertion problematic: "[A]n essential ingredient of the process by which humans make sense of crises in public life—or feel inspired to work towards solutions—is *stories: narratives* we tell ourselves in order to find our bearings in a new situation. . . . Our success in developing a globally concerted response to the climate crisis, for instance, will depend on the degree to which we can tell *stories* that we can all agree on" (Chakrabarty, "Foreword" xiii–xiv; emphases added).

would still exist if men and women and all their sorrows did not" (9). Because Beard does not see any value in "human taint" and "sorrow," his mind is cold, detached, and reductive—and yet the reader mainly sees the narrative world through *his* limited viewpoint, which has "no language . . . for feelings" (197). Beard's scientific approach therefore intentionally excludes other minds. The reader's confinement to Beard's point of view may seem problematic, but it is absolutely essential to the novel's rhetoric and ethics. By making readers see the world through the protagonist's self-centered and objectifying vision, *Solar* makes its main move, asking us to reflect on our own ecological preconceptions and "unexamined assumptions" (155).

One easily concludes that Meredith speaks for McEwan, especially since this author-character is based on McEwan's own participation in the climate change conference at the North Pole in 2005. The text self-ironically presents Meredith to the reader through Beard's vision: a "gangling" and "spindly novelist," "this crop-haired fellow with rimless glasses," reading a "harsh, impenetrable fragment of a novel punctuated with expletives" (76, 77, 80)—supposedly the very narrative we are reading. Perhaps McEwan plays with self-parody here, even as his authorial persona splits in two: Beard embodies scientific skepticism, and Meredith represents the poetic approach. Even though Beard ridicules Meredith's ethics and art, the reader is nevertheless invited to view the fictional novelist's rhetoric as one among the serious discourses featured in *Solar.* According to one reading, McEwan defends poetry and the humanities in the age of economy and technology; according to another, equally valid reading, he exposes the limits of the arts, humanities, and especially religion in explaining the human mind and how it works in the natural world. It may be the case that Meredith, whom Beard boos, represents a novelist's weak position in the larger arena of climate change rhetoric.

SURVIVAL IN THE AGE OF THE ANTHROPOCENE

As mentioned, McEwan's use of comedy, satire, and allegory in his fictional approach to climate change has received mixed responses. While the rhetorical understanding of a work's specific purposes is one way to deal with this criticism, *Solar* also prompts me to revisit Joseph Meeker's argument in his pioneering work on environmental imagination, *The Comedy of Survival: Studies in Literary Ecology.* Meeker regards literature as an important resource of the human species—a means of its survival—since it offers insights "into human relationships with other species and with the world around us" (4).

For Meeker, *comedy* as a mode locates human beings in their natural environment, while *tragedy* is about humanity's doomed attempt to put ourselves above the world. Thus, whereas tragedy foregrounds the transcendent moral order, human supremacy over nature, and the importance of the human individual, the comic mode is fundamentally connected to human survival in the natural environment (52). Meeker seeks to determine whether literature contributes to the survival of the human species or to its extinction (25), and his emphasis on the comic mode as a model for ecological behavior may help us appreciate comedic elements of McEwan's novel.

However, in the Anthropocene, heroic, tragic, or comical stories of individual survival in the midst of wild nature may simply not suffice, and idealistic notions of narrative's all-encompassing powers have also become suspect—as Chakrabarty concludes, addressing the topic of survival in the climate change context, "It is precisely the 'survival of the species' on 'a world-wide scale' that is largely in question" ("Postcolonial Studies" 15). Climate change and its various environmental consequences are difficult to make sense of in human terms precisely because they radically exceed the human scale. Therefore stories focusing on human experience—such as *Solar*—have a necessarily limited grasp of environmental issues' global proportions. As I suggested above, McEwan employs both narrative comedy and allegorical satire to approach the experience of climate change, with a banal and failed scientist as his hero. For such a character, readers may question whether his conceptions about climate change should be taken seriously either:

> Beard was not wholly skeptical about climate change. . . . But he himself had other things to think about. And he was unimpressed by some of the wild commentary that suggested the world was in "peril," that humankind was drifting towards calamity, when coastal cities would disappear under the waves, crops fail, and hundreds of millions of refugees surge from one country, one continent, to another, driven by drought, floods, famine, tempests, unceasing wars for diminishing resources. (15–16)

As the narrative rhetoric discloses these alarming scenarios following from climate change, we are told that Beard does not believe in these alleged perils. He is annoyed by the apocalyptic rhetoric associated with climate-conscious talk about the planet, as well as sick of listening to the "familiar litany of shrinking glaciers, encroaching deserts, dissolving coral reefs, disrupted ocean currents, rising sea levels, disappearing this and that, on and on" (36). And yet, behind Beard's back, these global threats are conveyed to readers in a visually

and emotionally evocative way, potentially raising their ecological awareness. While Beard believes he is dismissing these views, they in fact emerge as dialogical alternatives. McEwan's strategy here is effective both in terms of narrative rhetoric and in terms of environmental discourse.

What Beard does not recognize is that, in nine years and partly because of global warming, he will disappear, too. The narrative progresses from 2000 through 2005 to 2009, and there are changes in the climate: the Intergovernmental Panel on Climate Change (IPCC) gives its successive reports, and Al Gore challenges George W. Bush in the U. S. presidential election. At the beginning of the new millennium, the British government gets engaged with climate change "practically rather than merely rhetorically" (16). Yet Beard himself only "read about it" and "expected governments to . . . take action," and soon "the century had ended and climate change remained a marginal concern" (15, 75). The novel consists of three acts, each of which formulates a different viewpoint on the topic of climate change: first, Beard's skepticism about it (Part One, 2000), second, his rhetoric outlining the benefits of solar energy (Part Two, 2005), and third, his action of saving the planet and his own life (Part Three, 2009). Whereas the first part of the novel shows the protagonist's profound skepticism about global warming, the last part shows him convinced of its reality, much like Al Gore in his documentary film *An Inconvenient Truth* (2006). In fact, some pieces of Beard's rhetoric in front of his audience—such as his calculated expression in a staged theater performance that "the planet . . . is sick" (148)—parody Gore's populist phrasings. At the beginning of *Solar,* Beard's egotism strongly reflects humankind's self-centered attitude in the face of a crisis affecting the entire earth, but his subsequent conclusions—that in a crisis we understand "that it is not in other people or in the system or in the nature of things that the problem lies, but in ourselves, our own follies" (155)—signify his growing ethical vision.

Solar progresses from the "frozen shores" of the North Pole to the "savage heat" of the New Mexico deserts, so that human thinking and action are enveloped in the harsh and changing realities of the natural environment (79, 232).[4] The text depicts science, Beard's only and true religion, as practiced in sterile, lifeless sites, detached from human concerns. But the problem is achingly real; the changing climate—the freezing cold or the burning sun—affects everyday life. These effects make Beard seem like a comical figure and

4. Scott Slovic importantly notes that the popular phrase *global warming* does not quite describe the complexity of *climate change,* since what is happening globally is both extreme warming and extreme freezing. Therefore, for rhetorical reasons it makes sense to talk about the implications of "climate change" instead of "global warming" (119).

an egotist at the same time, for his fears about climate change are not really global but instead very local, concerning his own body.[5] As the narrative discourse and the story-time progress, climate change is written on Beard's body through extreme temperatures' influence upon his physical well-being:

> For when his business was done he discovered that his penis had attached itself to the zip of his snowmobile suit, had frozen in hard along its length, the way only living flesh can do on sub-zero metal. . . . And he was already in pain from the cold. (59)
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> The instrument panel was showing an external temperature of one hundred and twelve degrees Fahrenheit, hotter than either man had ever known. . . . Beard was generally adept at avoiding inconvenient or troubling thoughts, but now that his spirits were low he was brooding about his health, and staring at the reddish-brown blotch, a map of unknown territory, on his wrist. (232, 238)

Beard's bodily experiences have consequences for his ethical thinking. He ponders, quite grudgingly, whether "climate change, radical warming above the Arctic Circle, was actually taking place and was not a figment of the activist imagination" (59). The world around him gives constant signs of its existence, so that Beard is forced to concede that not all were "abstract concerns," for some were "distinctly embodied" (184). Here McEwan utilizes Beard's bodily experiences for rhetorical purposes, foregrounding human experientiality as a way of dealing with issues as big and complex as climate change.

Beard's comical ventures around the globe are therefore firmly rooted in his physical experiences, while his questionable ethics are also emphasized. Beard steals his younger colleague Tom Aldous's pioneering work on artificial photosynthesis, the use of carbon dioxide, water, and sunlight as an endless resource for the solar energy industry.[6] It appears, however, that Beard is in it for commercial gain rather than the saving of the planet, so that, indeed,

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5. Beard's banal situation is a kind of parody of the well-known environmental slogan "think globally, act locally," since his commercial ideas of saving the planet remain abstract compared to his comical actions on the physical and local level. Yet, as Timothy Clark, among others, suggests, "the issue of climate change also undermines the very possibility of acting only locally" (136).

6. As often in McEwan's fiction, the epilogue provides an ironic twist or reversal to the main narrative. In the appendix we are given the Nobel Prize Committee's presentation speech with its implication that Aldous's vision of artificial photosynthesis as a saving solution actually derives from Beard's initial work on "the complicated interactions between light and matter" (283).

climate change is something from which he *profits*. Compared to Aldous and his "deep interest in global warming, ecology, [and] sustainable development," Beard comes across as an opportunistic and selfish villain (270). This makes it difficult for readers to view him and his actions with sympathy. One of the most revealing conversations occurs in Part Three between the scheming Beard and his not-so-bright assistant Toby Hammer, who is worried about the possibility, mentioned on television, that the planet is *not* heating:

> "Here's the good news. The UN estimates that already a third of a million people a year are dying from climate change. Bangladesh is going down because the oceans are warming and expanding and rising. There's drought in the Amazonian rainforest. Methane is pouring out of the Siberian permafrost. There's a meltdown under the Greenland ice sheet that no one really wants to talk about. . . . Two years ago we lost forty per cent of the Arctic summer ice. Now the eastern Antarctic is going. The future has arrived, Toby." . . . Beard laid a hand on his friend's arm, a sure sign that he was well over his limit. "Toby, listen. It's a catastrophe. Relax!" (216–17)

There is clear irony here, for Beard needs the sun to get scorching hot in order to make his solar panels function more effectively. The very contradictoriness of Beard's practice occupies the core of *Solar*'s narrative rhetoric, for the novel dramatizes the potential dead ends to which even well-meaning individual or governmental practices may lead. Therefore, his telling Toby to "Relax"—because *it will remain* a catastrophe—is not very reassuring. We can view this white male physicist as an embodiment of a general refusal to think about the future of the planet. Beard's vices—gluttony, greediness, sexual promiscuity, opportunism, calculation, profit-seeking, and so on—hold up a mirror to humankind. His "grotesque body" is the very center of the novel's "satirical allegory" (Garrard, "*Solar*: Apocalypse Not" 125, 130). Beard consumes, steals, and exploits everything around him, whether it is food, women, or other scientists' research plans. As Beard's body starts to collapse and his ethics gradually deteriorates, he becomes a symbol of humankind's grossly exploitative way of treating the planet.

As we have seen, McEwan gives his main character pronouncedly physical attributes as well as allegorical dimensions—dimensions that Beard is unable to live up to precisely because of his physical shortcomings. Free indirect discourse at the narrative's beginning reveals that the "ethereal Beard of planetary renown" has "given up hopes of being the mortal chosen to find [the] grail," but near the end, Beard believes himself on a "quest to rescue human-

kind from self-destruction" (11, 66, 223). He thus aspires in vain to the role of his namesake, the Archangel Michael, who leads the heavenly forces against Satan in *Paradise Lost*; indeed, like Milton's god of fire, Hephaestus, he is "a falling star" in "the setting sun." Despite his allegorical dimensions, Beard is totally mundane; his "messy" life, filled with junk mail and empty bottles, mismatched socks and uncleared attics, never reaches "Eden, purged of clutter and distraction" (222, 226).

As a fictional figure, Beard fulfills the three character functions or dimensions outlined in rhetorical narrative theory: the *mimetic* component involves readers' interest in the narrative world as like our own and characters like ourselves; the *thematic* component involves readers' interest in the cultural, ideological, philosophical, or ethical issues the narrative addresses; and the *synthetic* component involves readers' close attention to the narrative as an artificial construct (Phelan, *Experiencing Fiction* 5–6). Beard's figure is, for good and ill, recognizably human and thus mimetic; his allegorical quality obviously serves thematic functions; and he is a useful narrative device for McEwan, enabling metafictional and intertextual commentary, and is therefore synthetic. Beard's developing skin cancer is an indexical sign of global warming, which is partially caused by short-sighted human actions, but Beard also symbolizes the planet's looming peril, even becoming an iconic image resembling the Earth: "an oily nausea at something monstrous and rotten from the sea stranded on the tidal mudflats of a stagnant estuary, decaying gaseously in his gut and welling up, contaminating his breath, his words, and suddenly his thoughts" (148). Indeed, the descriptions of his bodily features sometimes draw on geographic metaphors: "the archipelago of his disrupted selfhood" (142); "the northern hemisphere of his eyeball" (244). Beard's body therefore reads as a planetary metaphor for exploitation. The abstract dimensions of Beard's character are, however, converted into concrete functions of his character in the narrative progression (Phelan, *Reading People, Reading Plots,* 9), and the character's mimetic component comes to the foreground.

This is *Solar*'s greatest irony and the core of the narrative's difficult contradictions. Beard's selfishness is a symptom of humans' unsustainable treatment of their natural environment, yet he is the one who acts by thinking up solutions to save the planet. The ambivalence of Beard marks the novel's broader ethical indeterminacy. It is as if our future depended on Beard's growing self-reflexivity, precisely because in his greedy, selfish, and calculating mind he is "an average type" representing mankind (170).[7] Slovic writes that we are

7. As McEwan points out in an interview, "Global warming suddenly wasn't an abstract issue, because humans had to solve it—untrustworthy, venal, sweet, lovely humans" (qtd. in Garrard, "Ian McEwan's Next Novel" 718).

"an inventive, imaginative species—that is our nature," but we can "*apply* our minds or physical energy in sustaining or destructive ways" (6). Though, as some critics note, *Solar* reveals a pessimistic attitude about human behavior toward our planet (see Murphy 150), the novel also maintains some implicit hope about our ethical transformation. In Beard's case, while his bodily functions gradually collapse, there nevertheless remains some progression in his thinking and ethics.

NARRATIVE ART: A RHETORIC AND POLITICS OF CLIMATE CHANGE

Although some of the most challenging environmental problems have been popular topics in science fiction, fantasy, graphic novels, movies, and documentaries, *Solar,* together with Barbara Kingsolver's *Flight Behavior* (2012), is a rare example of climate change fiction in the mode of the traditional novel and psychological realism. In spite of their self-conscious employment of allegory and other rhetorical tropes, these two contemporary novels still fall into the category of the realist novel in the sense that they are "set in the here, the now, and the local" (Murphy 158). As Adam Trexler maintains, other modes and media "lack the novel's capacity to interrogate the emotional, aesthetic, and living experience of the Anthropocene" (6). However, following Trexler, we can ask what climate change does to conventional literary forms and what distortions and complications may occur in generic structures until they are better able to explore the Anthropocene's complexities and implications.

Solar thus raises a theoretical question about environmental imagination and the realist novel's limits in the age of anthropogenic climate change. Garrard maintains that "none of the traditional forms in literature, film, or television documentary is unproblematically suited to capturing the geographical and temporal scale, complexity, and uncertainty of climate change in particular" ("Ian McEwan's Next Novel" 709). Arguably, formulaic fictions will provide no sustainable solutions. Yet we may ask (together with Michael Beard) whether *any* kind of art will have the slightest influence on the future of the planet. Heise notes that climate change has begun to make its way into the cultural imagination and that it "poses a challenge for narrative and lyrical forms that have conventionally focused above all on individuals, families, or nations, since it requires the articulation of connections between events at vastly different scales" (205). Consequently, she argues that in their portrayal of climate change, some popular films rely on the conventions of "apocalyptic narrative" (206). These popular notions are also addressed by Beard with

increasing cynicism: for him, "the end of the world" was a "fantasy," and when it comes to the special case of climate change, "the apocalyptic tendency had conjured yet another beast" (16). Thrillers and science fiction novels, Hollywood mega-films, and documentaries routinely utilize conventional, human-centered narrative strategies when dealing with something that both exceeds the human scale and presents a huge challenge to the future existence of the species. Also in *Solar,* McEwan seems to be unable to represent climate change except in the form of a conventional masculine narrative about a white male scientist trying to navigate his relationship with his several ex-wives and one daughter. Obviously, we can also read the novel as a parody of this clichéd plotline.

Instead of being a sympathetic and idealistic character with whom the readers can become friends, such as Dellarobia in Kingsolver's *Flight Behavior,* Michael Beard becomes more and more obnoxious as the narrative goes on, "a modern monster in the flesh" (138). He is tragically unable to follow the friendly advice of Jesus—a Spanish ice sculptor he meets at the North Pole conference—that "it was important never to lose faith in the possibility of profound inner change" (66). After all his misdeeds, Beard still wants to believe in his own redemption: "He would be redeemed. Let there be light!" (144). Finally, the very ending of the novel aims to restore some hope in the sense that there might still be love and happiness waiting for the protagonist after his five marriages and adulterous escapades. After Beard has lost everything (his solar power project and his reputation in the field of science), he still has his loving daughter Catriona, and the last word of the narrative is *love*: "As Beard rose to greet her, he felt in his heart an unfamiliar, swelling sensation, but he doubted as he opened his arms to her that anyone would ever believe him now if he tried to pass it off as love" (279). But the conclusion of the narrative also offers us another interpretation; the "unfamiliar, swelling sensation" in Beard's heart may actually be a sign of a coming heart attack, anticipated by his feelings of chest pain, exhaustion, and his being overweight. The ending can be alternatively interpreted as a happy one in the comic mode or as an unhappy one in the tragic mode—indeed, this moving back and forth between two (or more) possible interpretations is built in the novel's rhetorical design and purpose.

Regarding the rhetoric of climate change and its competing narratives, Chakrabarty notes an apparent preference for accounts neither purely scientific nor purely literary; thus, he argues, in order to bring the complex dimensions of climate change's "wicked problem" within the grasp of human experience, it is typical to use narrative practices ("Postcolonial Studies"

10–11, 17–18). While environmental problems are not texts, narratives (both scientific and poetic) offer the problem of climate change rhetorically to the larger public imagination—as McEwan does in *Solar.* This is also a view that Michael Beard, a staunch opponent of storied versions of the natural world, gradually adopts: he employs "narrative art" to make his case about climate change and solar power (180). Thus, in a conference on solar power energy Beard is trying to survive in front of a demanding audience: "He was warming to his tale, convinced that it had a useful conclusion that he would discover in the telling" (155). This may make Beard an unreliable storyteller and yet, at the same time, the most reliable there is: he is feeling the actual heat in the face of global warming, and this may result in his failure to tell the tale. Since he believes that climate change is not a narrative to be told and put away, he becomes a "kind of learned satyr" and "innocent fool" who has seen the light (137). One way to conceptualize this would be to say that Beard gradually moves closer to the ethical stance of the implied author.

In my view, there is both dialogue and discrepancy between the rhetorical theory of narrative and ecocriticism. Whereas, in rhetorical theory, narratives communicate ideas and values to audiences through textual designs, ecocriticism is interested in ways that literature can affect readers to act in sustainable ways in the real world. These two approaches and their interests can still be combined in order to develop a new, environmentally informed and engaged narrative theory. Seymour Chatman suggests that rhetoric in fiction should be seen as "end-oriented discourse," by which he means the way in which the novel "suades" its readers toward the investigation of some views of "how things are in the real world" (203). According to Phelan, the rhetorical approach emphasizes "narrative as a distinctive and powerful means for an author to communicate knowledge, feelings, values, and beliefs to an audience" (*Narrative as Rhetoric* 18). In ecocritical literary studies, there are likewise scholars who see the relationship between nature and literature as dialogical and crucially negotiated by rhetoric. Bonnie Costello suggests that "the ecocritical preference for referentiality over textuality, for real world over rhetorical and aesthetic concerns, seems misguided" (14). Defending the power of poetry, Costello argues that imagination and abstraction can draw us toward the natural world rather than away from it. She adds that "a rhetorically oriented criticism is aware of the text . . . as a series of motivated strategies and structures, which communicates something to an audience" (14). Here, in the idea of rhetorical community and transaction, might be the missing link between ecological and narrative poetics.

Recent developments in narrative theory also help us bridge narratology and ecocriticism. Henrik Skov Nielsen, James Phelan, and Richard Walsh argue that "the use of fictionality is not a turning away from the actual world but a specific communicative strategy within some context in that world" and that "rhetoric is prevalent wherever and whenever someone wants to move someone else to do or think or change something" (62–63). A conception of narrative and fiction as rhetoric is the key to making narrative theory relevant to environmental literary studies, since in rhetorical theory and ecocriticism, as voiced by Costello and others, there are shared ideas about strategies, values, and communication. From the combined vantage point of the rhetorical narrative theory and ecocriticism, fictional narrative is a powerful means for making various environmental issues palpable—although we are reminded of *Solar*'s rhetorical and open-ended questions about whether *art* would lift climate change as a subject, gild it, and palpate it.

Indeed it is a central tenet of ecocriticism that writing and reading literature should not be an end in itself but should lead to engagement, commitment, responsibility, and action in the real world (Slovic 3–5). Slovic also wonders how you can use "narrative language for this purpose, to tell the story of something as abstract and complicated as climate change?" (123). I would argue that McEwan's choice of comedy and allegory provides one possible solution and answer, as does his taking advantage of the distinctive features of fictional narrative as rhetoric.

However, *Solar* seems to speak back to idealistic notions of narrative and literary theory and their supposed power to affect the real world. What McEwan's fictional scientist would claim is that both ecocriticism and narrative theory are based on unchecked idealism. It is as if Beard, who feels that "greenery . . . was not to his taste," was not reconcilable with any kind of politically correct "green" reading (87). We could idealistically think that *Solar* proves Beard wrong, that art *can* "inspire" us to "take action" in the extratextual environment, but this kind of straightforward interpretation falls short of recognizing the rhetorical complexity of the implied author's call (77). Through Beard's slanted thoughts and other fictional voices, *Solar* asks its readers to reflect on the many sides of climate change discussion, including the question about the value of literary art and narrative theory in that discussion. As in the confrontation between Beard and Meredith, McEwan presents a many-layered approach to the climate change issue, weighing options and entertaining contesting versions, especially those provided by natural sciences and poetry in their respective visions of the world.

CONCLUSION: TOWARD A METARHETORICAL NARRATIVE ABOUT CLIMATE CHANGE

Fictional narratives can obviously teach us values through their form, including complex characters, dialogic voices, many-layered viewpoints, and difficult human situations. All this makes novels and other narrative fictions a valuable means of communicating environmental themes deeply and persuasively to their audiences. In *Solar,* the various conflicting views inside the fiction invite the actual audience of the novel to take part in the heated discussion, to search for the implied author's design and intentions, and perhaps finally to conclude that some ethical problems resist easy solutions. It is this metarhetorical emphasis of *Solar* that, in my view, makes it a specific kind of rhetorical narrative. The novel exemplifies the idea that fiction can be a serious mode of discourse since it provides its readers with the possibility to think about narratives' rhetorical efficacy with regard to problems of the scale of climate change. Indeed, the ethical stakes of McEwan's novel prompt its readers to confront the idea that narrative as a rhetorical form can say something worthwhile about environmental issues. The novel's self-conscious rhetoric gives space to various conflicting views about our common world and shared realities without providing firm guidelines. The extremely complex issue—"the burning question" (149)—therefore remains open to further negotiation.

These open questions are reflected in the novel's narrative style, as Michael Beard's ceremonial confidence in front of a conference audience gradually gives way to disturbing inner thoughts: "'We pass through a mirror, everything is transformed, the old paradigm makes way for the new.' But the rhetorical flourish of these final phrases had a desperate air, his voice sounded thin in his ears, his conclusions were hollow after all. Where now?" (155–56). While Beard's project of providing a sustainable solution to the climate change problem is eventually doomed to fail, McEwan is ultimately successful with his chosen fictional approach. Apparently, following the rhetorical theory of narrative, we should trace a careful path across a complex site of textual meanings. Phelan writes that when reading fiction "we often come across narratives that do not seem to give sufficient signals for us to make clear and firm discriminations" (*Experiencing Fiction* 1–2). Despite his ambivalent role as Beard's antagonist, Meredith, the fictional novelist of *Solar,* does point the reader toward the ethical and rhetorical crux of the narrative, speaking of "the loss of a 'moral compass'" and the "difficulty of absolute judgments" (76). This kind of rhetoric inside the fiction—indeed, a kind of interpretative key to readers—mirrors the larger discursive and metarhetorical frame of the novel.

In conclusion, it may be suggested that through his rhetorical moves McEwan constructs an argument that real-world problems are not only narrative problems and that it is not only a question of different storied versions of climate change. Literary fictions can still contribute to the discussion about our global futures in concert or in clash with other discourses, either scientific, economic, technological, or philosophical. Finally, rather than reading *Solar* as a mimetic representation of the reality of climate change, we need to recognize another kind of design and intention: the novel is about the rhetoric associated with climate change.[8]

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