DEBUNKING THE GLOBAL WARMING METANARRATIVE: AN ECOCRITICAL READING OF IAN McEWAN'S *SOLAR*

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Abstract: Even though it abounds in sophisticated physics jargon that captures the ethos of the current state of the global warming debate, Ian McEwan's novel Solar (2010) is not, in essence, a novel about climate change and renewable energy. The novel's satirical and antiheroic portrayal of Michael Beard, the repulsive Nobel-prize-winning scientist who wants to save the world from global environmental disaster but who embodies all the planet-spoiling habits that people develop, serves the author's true intent of debunking current scientific myths and clichés and of voicing his concern with the metanarratives that they generate, with the dangers of conflating fact with fiction and building a whole scientific project on deceit. It is precisely the novelist's questioning of the authority of the global warming debate, and of all scientific discourses and globalising systems for that matter, that thwarts a traditional ecocritical reading of Solar. By challenging two of the major ethical assumptions of ecocriticism (the existence and importance of an environmental crisis and the capacity of art to appease it) rather than affirming them, the novel invites a broadening of the scope of the ecocritical approach and a reconsideration of its premises.

Keywords: global warming, ecocriticism, metanarratives, Ian McEwan, Solar

Motto: The planet does not turn for us alone.
Science is a form of wonder, knowledge a form of love.
Are we too late to save ourselves?
Shall we change, or shall we die?
(Ian McEwan, *Or Shall We Die?*)

"To address climate change and the political challenges it raises, we must harness imagination to understanding, good science to enlightened globalisation," says Ian McEwan in a debate on the politics of climate change. The difficulty of finding a balance between the narratives of science and those of fiction, between small, local practices and global, all-encompassing concepts, is precisely what the novelist tackles in *Solar* (2010), in an attempt to raise environmental and ethical awareness, inciting an ecocritically informed reading of the novel.

Ever since its emergence in the early 1990s, ecocriticism has been difficult to ignore, the environmental perspective covering a wide range of authors, genres and cultural theories. If early ecocriticism drew its philosophy, as Ursula K. Heise explains in her review of two fundamental works on ecocriticism (294), from a misunderstanding of ecological science, conceiving of ecosystems as harmonious and self-healing, a redefinition of the relationship between contemporary environmental cultural studies and science as complex, dynamic and subject to change is needed, current ecological criticism raising questions formerly neglected by ecocritics (294). As Greg Garrard argues,

> [p]ostmodern ecology neither returns us to the ancient myth of the Earth mother, whose loss some ecocritics lament, nor supplies us with evidence that 'nature knows best.' The irony is that a future Earth-oriented system of values and tropes will have to acknowledge contingency

> and indeterminacy at a fundamental level, but this only *increases* the scope and extent of our liability as the most powerful species on the planet. The poetics of authenticity assumes, against the evidence of ecology, that there is a fixed external standard we ought to try and meet. The poetics of responsibility recognises that every inflection of earth is our inflection, every standard our standard, and we should not disguise political decisions about the kind of world we want in either the discredited objectivity of natural order nor the subjective mystification of spiritual intuition. Ecocriticism is essentially about the demarcation between nature and culture, its construction and reconstruction. (178-9)

One of McEwan's primary preoccupations as a novelist is to trace the moral dilemmas that result from contingency, indeterminacy and the complexity of the human experience. What the novelist seems to suggest is that the sole way in which we can meaningfully investigate aesthetic and ethical questions is by means of close attention to the distinctiveness of specific cases. It is mini-narratives that the novelist favours, stories that emphasise the lived experience and explain small practices, local events, rather than 'grand narratives' and all-encompassing concepts. The terms 'grand narrative' and 'metanarrative' were used by Jean-François Lyotard in his book *The Postmodern Condition: A Report on Knowledge* (1979) to refer to the stories that a culture tells itself about its practices and beliefs in order to maintain totality and stability. Lyotard regards the Enlightenment project as a mere totalising explanation of things, just like Marxism or the myth of scientific progress, and defines "postmodern" as "incredulity toward metanarratives." In the philosopher's opinion, postmodern theories are aware that grand narratives serve to unmask the instabilities inherent in any social organisation. "The grand narrative," the philosopher explains, "has lost its credibility, regardless of what mode of unification it uses, regardless of whether it is a speculative narrative or a narrative of emancipation." As a result, postmodern critics opt for 'small narratives,' preferring small practices to wide-ranging theories, abandoning all pretence to universality, certainty, or permanence (*apud* Cahoone 264).

On the face of it, it is unlikely to look for environmental awareness in a novel whose protagonist made reviewers uncomfortable, many of them failing to see the effect that McEwan wanted to create by filtering the world through the mind of Michael Beard, an overweight, self-absorbed, self-deluding, gluttonous Nobel-prize-winning physicist, who wants to save the world from environmental disaster. Jason Cowley complained about the novel's one-dimensional protagonist and the absence of "other minds, the sense that people other than Beard are present, equally alive, with something to contribute. Without them, after a while, it feels as if you are locked inside an echo chamber, listening only to the reverberations of the one same sound−the groan of a fat, selfish man in late middle age eating himself."

Yet what such critics overlooked was precisely the essence of the novel and the author's true intent in creating it. Michael Beard, though utterly obnoxious, is not a duplication of any of the characters of McEwan's shocking and claustrophobic earlier short-stories and novels, populated with desocialised, obsessive, detestable people, nor is *Solar* an infelicitous digression from the novelist's admirable approach in recent novels. More importantly, it is not merely a comical novel, as many of its reviewers suggested. Even though the novelist does rely on lively humour to depict memorable scenes, *Solar* portrays even more profound anxieties and instabilities and a more sombre image of humanity than those

sketched in his two previous novels, *Atonement* and *Saturday*, and stands as a great achievement that should be credited with more inspired and complex criticism than those reviewers were able to provide. With *Solar*, McEwan takes his work to a new direction by merging satire with science and mixing familiar elements in novel ways so as to create an original example of meaningful moral fiction that not only leaves behind his former preoccupation with deviant sexuality, but also departs from its focus on stereotyped contemporary themes, such as terrorism.

Science is only a marginal theme in the novel, being used as a backdrop for voicing McEwan's concern with "the forms of narrative that climate science has generated" (*Solar* 214), with the dangers of being unable to tell fact and fiction apart. Above all, the novel questions the authority of all scientific discourses and launches an attack against the insufficiency of any exclusive master narrative. McEwan turns to a scientist as justification to hold in contempt current myths and clichés–global warming, quantum mysticism, etc.

The first part of the novel finds its antihero, Michael Beard, accidentally engaging into climate change work, as a result of accepting a position as head of the newly founded British National Centre for Renewable Energy to reinvigorate his dwindling career and obtain income with a minimum of effort. Nonetheless, when it comes to his work, he is not keen on initiating any action and is totally devoid of conviction, as this passage where he expresses his scepticism about the threat of climate change indicates:

> [H]e 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. There was an Old Testament ring to the forewarnings, an air of plague-of-boils and deluge of frogs, that suggested a deep and constant inclination, enacted over the centuries, to believe that one was always living at the end of days, that one's own demise was urgently bound up with the end of the world and therefore made more sense, or was just a little less irrelevant. (*Solar* 21-2)

He thus criticises and even dismisses one of the beliefs at the heart of ecological studies: that there is actually a global environmental crisis. As a result, he is doubtful about the necessity to harness, convert, and distribute energy from the sun: "'Solar energy?' […] He knew perfectly well what was meant, but still, the term had a dubious halo of meaning, an invocation of New Age Druids in robes dancing round Stonehenge at Midsummer's dusk. He also distrusted anyone who routinely referred to 'the planet' as proof of thinking big" (35). An embodiment of moral depravity, always leaving behind him traces of waste, damage, and disaster, he stands for all the harmful and planet-spoiling habits that people develop, or, as Michiko Kakutani put it in his review of the novel, for "everything that has brought about the climate-change crisis in the first place: greed, heedlessness and a wilful refusal to think about consequences or the future."

The novelist's attack is also directed at those feminists and social science professors who warp scientific truths to make them convenient to their quirky ideas, such as the postmodern social anthropologist who delivers a speech at a roundtable chaired by Beard and whose recent research project consists in demonstrating that genes are "socially constructed"

(*Solar* 191). "Without the various 'entexting' tools the scientists used," the professor of social sciences argues in the novel, "the gene could not be said to exist. [...] The gene was not an objective entity, merely waiting to be revealed by scientists. It was entirely manufactured by their hypotheses, their creativity, and their instrumentation, without which it could not be detected" (191).

Artists, particularly those who appropriate ideas from physics to suit their own moral and political schemes, come under Beard's (and McEwan's) scathing scrutiny as well. The novel thus calls into question another crucial assumption of ecocriticism: that art can promote change during times of planetary ecological crisis or at least alleviate such a crisis. Artists are, Beard notes, "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" (113).

Beard also muses on the nonsensical assumptions to which quantum mechanics may give rise:

> Quantum mechanics. What a repository, a dump, of human aspiration it was, the borderland where mathematical rigour defeated common sense, and reason and fantasy irrationally merged. Here, the mystically inclined could find whatever they required, and claim science as their proof. And for these ingenious men in their spare time, what ghostly and beautiful music it must be–*spectral asymmetry, resonances, entanglement, quantum harmonic oscillators*–beguiling ancient airs, the harmony of the spheres that might transmute a lead wall into gold, and bring into being the engine that ran on virtually nothing, on virtual particles, that emitted no harm and would power the human enterprise as well as save it. (26, author's emphasis)

His thoughts are later confirmed in a scene where he, the only scientist among a bunch of artists on an expedition to the Arctic where they are supposed to see global warming in action (inspired by a trip to the North Pole that McEwan took as one of the few artists in a group of scientists, as he told Andrew Marr in a BBC interview), finds himself challenging the position of a novelist who abusively avails himself of Heisenberg's uncertainty principle to complain about "the loss of a 'moral compass,' the difficulty of absolute judgments" (*Solar* 111). Beard argues that Heisenberg's principle has "no application to the moral sphere," as this would have been possible only "if the sum of right plus wrong divided by the square root of two had any meaning" (112). Trying to secure an ethical perspective from quantum mechanics, McEwan seems suggest with this scene, poses risks that one must assume when resorting to such far-fetched speculations. The artists accompanying Beard on his trip to the Arctic come across as useless, idealistic escapists, a rendering that can be interpreted as self-reflexive criticism of McEwan's novel, which, just like the penguin ice sculptures of a Spanish artist called Jesus, quickly melting in the hot climate of southern Europe, is a work of art.

While participating in a conference on renewable energy, Michael Beard meets Jeremy Mellon, a professor of urban studies and folklore, who is concerned with "the forms of narrative that climate science has generated…an epic story…with a million authors' approaches" (214) and of whom Beard is suspicious, arguing that "[p]eople who kept on about narrative tended to have a squiffy view of reality, believing all versions of it to be of

equal value" (214-5). Beard favours the scientific version of reality, holding that science alone can offer an objective understanding of the world. Yet this scene underscores Beard's subjectivity, as he too resorts to narrative in his presentation; moreover, he accidentally proves that he himself draws on stories to recount his different versions of events, modifying them to please his auditors. He thus instances that reality comprises multiple versions and that storytelling is intrinsic to public speaking. Later on, in his lecture, he tells this story again, but infuses it with an attitude of possible financial advantage: "[c]olossal fortunes will be made" (223), he tells his listeners. Once arrived at home, he gives his girlfriend Melissa Browne an altered version of the event, further blurring the boundaries between fact and fiction.

The novel is populated almost exclusively with opportunists of various kinds and ranks who devour one another while being involved in a fervent venture to save the planet. No field of the academia, from selfish science to grandiose liberal arts, panic-stricken environmentalism, and hypersensitive social constructivism, escapes McEwan's lampoon, and the whole novel seems to be built on a scaffolding of tremendous irony. The attack against this gallery of intellectuals turns McEwan into a Menippean satirist, whose targets are, as Northrop Frye would have it, "mental attitudes," "pedants, bigots, cranks, parvenus, virtuosi, enthusiasts, rapacious and incompetent professional men of all kinds," and who "shows his exuberance in intellectual ways, by piling up an enormous mass of erudition about his theme."

Throughout the novel, Beard keeps revising his position with regard to global warming to suit his own opportunistic purposes and his self-image as saviour of the world to the extent that, a long way into the novel, he is thoroughly persuaded of both the scientific truth of climate change and the need for sustainable development. His regular state of delusion deteriorates as he nurtures the belief that he is capable of developing an artificial type of photosynthesis to help solar panels to capture energy from water photons, which would allow "less than an hour's worth of all the sunlight falling on the earth [to] satisfy the whole world's needs for a year" (*Solar* 224-5). Yet, while trying to "make his gift to the world" (346) and save humankind from large-scale environmental disaster, he must also realise that his own life is a small-scale catastrophe, the science on which he pins his hopes of status recovery turning out to be only ancillary to his domestic chaos and mishaps. It is no surprise that his three-year-old daughter is the only one in the novel who believes that Michael Beard's work will save the planet.

Beard's steadily eroded life disintegrates under the strain of his excesses and the blame for this lies entirely with him; nonetheless, *Solar*'s protagonist stakes no claim to the stature of a tragic hero who suffers a downfall because of his excessive pride. He inspires no pity and fear, being cast as a tragicomic everyman, the embodiment of the id-ridden part of the human personality, who cannot fully commit to a purpose and strong individuality and who persists in yielding to self-indulgent activities, including stealing the revolutionary plans of his now dead nerdy assistant Tom Aldous (who is deeply concerned about climate change and whose name is reminiscent of Thomas Henry Huxley, the 19th century biologist famous for his advocacy of Darwin's evolutionary theory, and Aldous Huxley, the 20th century author of the utopian novel, *Brave New World*) in order to curb global warming and draw easy money out of them. His tragic dimension is fully accomplished in comedy, his holy mission as planet saviour turning into an ironic quest that reveals an absurdist vision of the world and affirms a sense of disaster.

Solar's allegorical protagonist incites a view of humans as dummies enslaved to the dictates of their complacency. The choice of portraying a model of virtue would have rendered much more difficult or even impossible the author's task of uncovering of how weaknesses and self-satisfaction prevent humans from coping with the responsibility for counteracting the adverse effects of global warming. Even though it may seem a peculiar choice from the author's part to control his narrative, having at the centre of his novel a flawed and thoroughly repellent character, who describes himself as "neither observant nor sensitive" (284). who "would have been the first to concede that he had never quite got the hang of brotherly feeling" (218), and who considers virtue to be "too passive, too narrow […] a weak force" (218), has enabled the novelist to expose the frivolousness and dysfunctions that prevail among all the institutions of authority and the distress of an unstable world susceptible to both man-made and natural threats. Adam Kirsch astutely captures the essence of the novel's message in the conclusion to his review of *Solar*: "In a novel full of grim jokes, the grimmest is the possibility that if the planet is to stand a chance of being saved, its fate may lie in the hands of a man like Michael Beard." The novel's finest accomplishment, apart from its dark comedy, resides in the novelist's mastery in encapsulating the complexities of the issue of global warming in his protagonist's all-too-human portrayal.

McEwan's engagement with science is not at all uncommitted in *Solar*, as a few critics hurried to suggest when they interpreted his science-focused novels as being mere displays of sterile scientific theories and concepts. The influence of science on McEwan's writing has special relevance, precisely because his fiction, in spite of the novelist's self-declared advocacy of rational and scientific inquiry and unlike his scientist characters' perspectives, is not invariably commendatory of science: it favours the staging of a subtler criticism of the 'two cultures' debate and reveals that science and the humanities are unified at a deeper level. An attentive reading of his texts has evinced that the author manages to register a moral impact upon his readers, by calling into question the effectiveness of science as an exclusive model of knowing and ultimately showing that neither science nor emotion alone can offer an adequately broad understanding of the world.

The novelist creates characters who are proven wrong for exclusively endorsing one side of the conflict, thus entering into the two cultures debate and challenges the significance of science in a dehumanised, globalised, consumerist society. The outcome is a cogent testimony of the impossibility of any scientific explanatory pattern to elucidate quotidian disorientation and personal trauma.

By challenging scientific discourses that are ineffectual unless they encapsulate the humanistic values that are also part of the contemporary civilisation, Solar assumes that the green crisis is a widely cultural issue, thus signalling both McEwan's refusal to take for granted scientific doctrines and ecocriticism's widening of scope from its attention directed mainly to the natural environment that the prefix "eco" indicates towards a comprehensive view that also takes into account the urban life, the mingling of natural and built elements, and the reconsideration of global and local phenomena. It is only by adopting such a pluralist, open and conscious stance that it can raise awareness and offer a substantial gain to the theoretical landscape.

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