The essay suggests that Ian McEwan presents science as comedy in *Solar* in order to debunk the idea of progress as a modern myth. Contextualizing science as an activity tied to socio-economic and individual interests, humour in *Solar* mocks human hubris and the belief in salvation through technological advancement.

**Science as Comedy and the Myth of Progress in Ian McEwan’s *Solar***

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Before its publication in 2010, Ian McEwan’s novel *Solar* was hailed as a major literary contribution to the climate change debate, an acclaim which raised expectations the author was then accused of not having met. The text’s humorous elements have provoked particular disappointment because, as some critics felt, they did not do justice to the goal of increasing public awareness of the serious threat that global warming represents. In the words of Greg Garrard, *Solar* “is limited both by McEwan’s choice of satirical allegory as a genre, and by the topical parables that continually dissipate the momentum of the allegorical plot” (“*Solar*” 123). Richard Kerridge criticized the novel’s protagonist as an “unsympathetic” “version of [Joseph] Meeker’s picaro” (157), who merely serves to stress that “the effort to find technologies to save us from climate change [..] is beset on all sides by individuals heedlessly pursuing their own short-term desires and ambitions. *Solar* is anti-heroic on a general
scale. The crisis doesn’t bring the best out of anybody. No one rises to the occasion” (156). Other reviewers, such as Stefan Rahmstorf from the Potsdam Institute for Climate Impact Research, have appreciated the humour of the novel, especially because it “is [a] way around the moral gravity of the subject [of climate change],” whereas Evi Zemanek endows the form with meaning when she argues that “only in view of its satiric and allegorical dimensions can McEwan’s novel be understood as committed literature [. . . because] the consideration of the satiric-allegorical risk narrative [is] a new form of eco-fiction” (52). Last but not least, The Economist reduced the novel to a fun but otherwise insignificant reading experience because “the plot is barely credible and the scientific setting hard to recognise. A novel to chuckle over, and chuck away” (“Mr Sunshine”). As these examples show, the response to McEwan’s Solar has been shaped by readers’ different agendas, based on approaching the text either on the basis of its capacity to provide the pleasure of entertainment, or with regard to its presumed ability to build momentum for a political cause.

The comic representation of the world of science, however, has received comparatively little attention so far, and none with respect to the novel’s challenge to the myth of progress. This essay attempts to fill these lacunae by analyzing the ways in which humour in Solar serves to locate scientist characters and scientific research within topical philosophical debate. It argues that this formally realist novel is saturated with a variety of comic means that portray science as a human activity in context, a strategy aimed at debunking the idea of social advancement as a modern self-delusion. Science, the analysis will show, is the perfect trope to accomplish this effect, as it is a human achievement strongly identified with technological and epistemological development. The essay suggests that the novel’s comic representation of science confronts society with its weaknesses, satirically exposing self-indulgence, corruption, and the dangers of unrestrained consumption that distinguish twenty-first-century culture. Scientists and scientific institutions in Solar are tied to economic interest and personal ambition, a connection viewed critically through the modes of comedy that allegorize, exaggerate, mock, and distort the factual in order to expose the self-referential quality of human knowledge and technological advancement. The novel challenges the belief in the salvational potential of scientific progress not only because the latter is unfit to solve problems such as humankind’s destructive exploitation of natural resources, but also because, or so the text suggests, such romanticization is at the root of the mechanisms that allow humans to delude themselves into expecting deliverance from their own inventions.

Before discussing the ways in which the novel portrays science as comedy, it is important to outline briefly the philosophical background of its challenge to the myth
of progress. *Solar* allegorizes the thinking of British political scientist John Gray, whose critique of liberal humanism insists that the “idea of progress is a secular version of the Christian belief in providence” (*Straw* xiii) and as such a human “myth created by the need for meaning” (*Anatomy* 299) that does not warrant an equation of scientific and technological innovations with social advancement. Gray argues that in the natural sciences, “the growth of knowledge [may be] cumulative,” but “human life as a whole is not a cumulative activity; what is gained in one generation may be lost in the next.” In fact, scientific innovations can have a detrimental rather than beneficial impact on a society’s “ethics and politics” because scientific knowledge “increases human power—and magnifies the flaws in human nature” (*Straw* xiii). The hope for moral progress through science and technology, Gray suggests, is a historical phenomenon that has come to dominate contemporary culture: “According to Positivism, science is the motor of historical change. New technology drives out inefficient modes of production and engenders new forms of social life. This process is at work throughout history. Its end-point is a world unified by a single economic system. The ultimate result of scientific knowledge is a universal civilization, governed by a secular, ‘terrestrial’ morality. [...] Technology—the practical application of scientific knowledge—produces a convergence in values. This is the central modern myth, which the Positivists propagated and everyone today accepts as fact” (*Anatomy* 273). In *Solar*, Gray’s ideas are translated into narrative through a comical exposure of the incommensurability of technological advancement and social progress. The novel presents science as inextricably linked with the political and economic culture in which it is practiced, and problematizes both the circumstances of the production of scientific knowledge and scientists’ self-serving motivation to conduct research. The influence of Gray’s philosophy has already been identified in McEwan’s novel *Atonement* (2001), whose characters’ elusive and occasionally erratic “conscious motivation” was understood to question the positivistic “moral idealism” that can be observed in “environmental literature and ecocriticism” (Garrard, “McEwan” 710). *Solar* challenges both positivism and human reasoning by comically exaggerating the human nature of scientists, whose pursuit of professional and material ambitions impacts on the conditions and the results of scientific research. In this way, science becomes a symptom and a consequence of the human need for meaning, while its innovations remain unrelated to moral advancement.

It becomes evident that, read as an allegory of Gray’s thinking, *Solar* and its comic strategies are not designed as the sort of committed literature for which some critics hoped. The novel does not aim to stimulate activism, and its political agenda is limited to the impact of satire, which illustrates “the evils of particular ideas or
actions. As science fiction writer Ray Bradbury has explained, ‘I don’t write to predict the future; I write to prevent it’” (Nilsen and Nilsen 253). The humour in Solar, in fact, invites philosophical insight because it “lets us see the familiar defamiliarized, the ordinary made extraordinary and the real rendered surreal” (Critchley 10), all of which are encouragements to reconsider “the humanity of the human” (Plessner 186). The novel offers a realism that rests on the acknowledgment of the absurd and incongruous qualities of human nature, which “returns us to [this world] ineluctably by showing that there is no alternative” (Critchley 17) to who and what we are. Consequently, the realist narrative mode also has a satirical quality, which is supposed to jar “us out of [our] complacency into a pleasantly shocked realization that many of the values we unquestioningly accept are false” (Feinberg 15-16). The “human condition itself” is, after all, the “perennial topic of satire,” which aims to exhibit and ridicule man as a “weak and mortal creature” whose “desires, physical and mental, are boundless” and that, even when fulfilled, have “unexpectedly unpleasant consequences. Man is ceaselessly engaged in solving the problems set by nature—but every problem that he solves creates new ones” (Hodgart 10). Zooming in on different aspects of human nature and society, all of the novel’s comic means are applied to such satirical exposure: while parody reveals the selfish interests of scientists and the potential for corruption in a (funding) culture interested primarily in economic gain, irony—including the detached irony of the protagonist’s sarcastic free indirect discourse—gestures toward the ambivalences, contradictions, and incongruities of human behaviour. Physical humour such as the grotesque exaggerates moral weakness and human indulgence in vice, whereas slapstick is used to mock scientist characters’ clumsiness and to suggest that scientific knowledge is best practically applied rather than endowed with transcendental meaning. Last but not least, sardonic observation exposes hubris as counter-productive to both technological progress and the attainment of human self-awareness.

The main comic means by which Solar challenges the myth of progress and contextualizes science is the protagonist Michael Beard, a fictional winner of the Nobel Prize for his work on photoelectric effect. Drawn as an exaggerated parody of the conflicting desires that come with being human, he is a physicist who commands the education, the ability, and the institutional and financial means to develop concepts for ecologically sustainable energy production but who prefers to invest his time and energy in over-consumption, adultery, and criminal activity. In three parts set in the years 2000, 2005, and 2009, respectively, the novel shows the middle-aged philanderer Beard at different points of his life: first, as resting on his professional laurels and confronted with
the end of his fifth marriage; second, in his attempt to regain his former status and prestige by becoming engaged in the fight against global warming; and third, close to the completion of his project, an artificial photosynthesis plant, the ideas for which he has stolen from his postdoctoral colleague Tom Aldous. The disrupted coherence of the narrative has semantic meaning for the characterization of both the protagonist and the decade in which the novel is set: following 9/11, the first decade of the new millennium was concerned more with fundamentalism than climate change, which had dominated global debates in the later twentieth century. The novel presents Beard as a *picaro*, a standard comic character who “does not develop” and who repeatedly transgresses the “line between being a criminal and a petty rascal” (Nilsen and Nilsen 253), often journeying through an episodic structure that emphasizes those aspects of his personality that remain unchanged over the course of the story. In *Solar*, the episodes show Beard as comically controlled by his desires and unable to resist any kind of temptation at various stages of his life. According to M. John Harrison, the protagonist is “perhaps the most evident symbol of all. He represents science. He represents over-consumption. He represents the constitutional incapability of human beings to keep their habitat in order. [. . . ] Obese, poisoned and suffering from sunlight-induced melanoma, he spins rotundly towards some apparently final crisis” (19). An allegorical reminder of the seven deadly sins of Christian ethics (Jones), Beard indulges in all the instant gratifications that twenty-first-century Western culture has to offer: promiscuity, unrestrained consumption of unhealthy food and drink, physical laziness, and the ersatz satisfaction of intellectual pride through plagiarism. McEwan’s novel satirizes the abuse that Beard inflicts on himself as symptomatic of both contemporary culture and the latter’s mindless exploitation of the earth and its resources.

As a comic hyperbole of both science and society in the age of consumption, Beard exemplifies the human unwillingness to confront the consequences of over-consumption. Early in the story, it is shown that he does “not believe in profound inner change” (*Solar* 66), a comment that alludes to the myth of moral advancement. In addition, Beard combines the character type of the aging cuckold, a standard in comedies (Eder, Jannidis, and Schneider 38), with that of an aging scientist who has failed to keep pace with developments in his field: “Two decades had passed since he last sat down in silence and solitude for hours on end, pencil and pad in hand, to do some thinking, to have an original hypothesis, play with it, pursuit it, tease it into life. The occasion never arose—no, that was a weak excuse. He lacked the will, the material, he lacked the spark. He had no new ideas” (*Solar* 15). As a consequence, Beard feels intimidated by the knowledge and enthusiasm of his younger colleagues: “Some
of the physics which they took for granted was unfamiliar to him. When he looked it up at home, he was irritated by the length and complexity of the calculations. He liked to think he was an old hand and knew his way around string theory and its major variants. But these days there were simply too many add-ons and modifications. [...] God may or may not have played dice, but surely He was nowhere near this clever, or such a show-off. The material world simply could not be so complicated” (21).

Drawing him as occasionally as bewildered by recent scientific developments as he is generally by the motivations of others, Beard’s confusion renders him somewhat sympathetic as a character, for it comes as a surprise to find somebody who should be in control so embarrassed by his task. His reflection on recent scientific developments is both overtly sarcastic, and it shows an implicit ironic tone that determines the text’s narration in general. In comic novels, detached sensibility often allows extradiegetic narrators to comment on characters without being involved in the story themselves. The realist mode in Solar differs from such distanced comedy insofar as Beard’s homodiegetic third-person observation directs his irony toward himself: his perspective is the only one communicated in the text, a strategy that allows for melancholia and sad resignation as much as detached amusement.

Another ironic representation of science is Beard’s place of work, which is an institution where research is conducted in response to political demands and economic interests. Installed as the Head of the National Centre for Renewable Energy in Reading, Beard is expected to develop products that counteract the effects of climate change. The concern, however, does not occupy him much; he expects politicians to respond to the challenge but remains oblivious to the fact that his institute—and his position within it—were established as part of just such a governmental attempt to take action (15). Beard feigns activism in order to fit in with those who are more committed. At the Centre, he initiates the development of a Wind turbine for Urban Domestic Use—which is given the telling acronym WUDU (23)—but the technology eventually turns out to be much too complex to be efficient. The witty acronym mocks his colleagues’ quasi-religious belief in the capacity of wind energy, questioning both their motives and the conditions under which they produce knowledge and technology.

The ironic contempt that distinguishes Beard’s third-person narration is also used to denounce scientific research conducted exclusively for economic gain. In the third part of the novel, Beard, then seemingly successful in his attempt to build a solar energy plant, receives a letter containing a lucrative offer from “a consortium of power companies” (276) that seeks his expertise on nuclear energy. Since Beard is perceived to be a proponent of ecologically sustainable resources, the approach makes an effort to use the kind of ideologically phrased reasoning the consortium believes will chime
with his beliefs. Proceeding from the argument that nuclear power is, after all, much “greener” than oil or coal, the letter lists a number of prominent environmentally engaged scientists, from James Lovelock to Stewart Brand, who have promoted the use of nuclear power as an ecologically acceptable solution to humankind’s energy problems. The proposal breaks its own persuasive stride, however, when it tries to sell a nuclear power plant disaster as a blessing in disguise for biodiversity, an attempt mockingly paraphrased through Beard’s focalization: “Was not the 28-kilometre exclusion zone around Chernobyl now the biologically richest and most diverse region of Central Europe, with mutation rates in all species of flora and fauna barely above the norm, if at all? Besides, wasn’t radiation just another name for sunlight?” (276). The free indirect speech of the protagonist parodies the would-be enthusiastic style designed to conceal the consortium’s brazen pursuit of their own interests. The letter demonstrates that science “will never be used chiefly to pursue truth, or to improve human life. The uses of knowledge will always be as shifting and crooked as humans are themselves” (Gray, Straw 28). In line with his novel’s agenda to comically contextualize science, McEwan does not include an extradiegetic narrator’s opinion on the ecological potential of nuclear energy, but exposes to sarcastic criticism the processes by which economic interests impact the production of knowledge.

Beard has only caustic contempt for the mercenary attitudes that have come to prevail in corporate culture and business practices, and that determine the conditions of scientific research. The homodiegetic narration, tied to his ironic perception, does not reveal whether he scorns this mindset because it has become all-pervading, or because it is simply an unpleasant reminder of his own selfish behaviour. The parodied jargon in the letter, however, suggests a general rejection of utilitarian thinking. Drafted by a former scientist colleague of Beard’s now working as a consultant, the proposal applies both aesthetic and scientific rhetoric, combining vacuous poetic analogies, a crude allusion supposed to render harmless nuclear radiation, and a hypocritical bow to political idealism. This attempted multi-modal manipulation of Beard also gestures toward a development that extends the story frame. It discursively implies that the competitive “two cultures” struggle for relevance, which has informed debates between the sciences and the humanities since C.P. Snow decried the relative absence of scientific knowledge in British higher education in the early 1960s, has become obsolete. In contemporary Western societies, the different forms of cognition and learning have become subordinated to late capitalist consumer economics, which pragmatically deploys whatever ideological intertext promises to attract and to sell. The ironic re-enactment of the arts vs. sciences debate featured in the second part of the novel (138), which parodies both postmodern attempts to overcome reductionism and
the scientific commitment to it, gains an almost nostalgic quality in hindsight. The novel suggests that in an age that determines socio-cultural and educational priorities on the basis of their presumed economic value, it is not their respective methodologies that limit the significance of either of the “two cultures,” but the fact that they are appreciated only in utilitarian terms. Further irony to the bitter assessment of the influence of economic greed is added by the fact that when Beard receives the consortium’s proposition, the exposure of his fraud is imminent. Therefore, the letter’s feigned advocacy of environmental concerns is not only denounced as pathetic, it is rendered pointless.

In addition to the protagonist’s symbolic function as a parody of human weaknesses, and to sarcastically exposing the discursive takeover of economic reasoning in science and society, Solar satirizes the belief in salvation through scientific advancement as a form of human hubris. Again, Beard is at the centre of this challenge to the ideology of progress. His previously discussed unease with recent developments in physics is accompanied by a sarcastic diatribe against the metaphysical ambitions of his discipline:

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. (19, emph. McEwan’s)

Beard’s ironic contempt not only portrays quantum mechanics as unscientific: it denounces it as a phenomenon driven by the hope that there would be one solution to all of humankind’s problems—a solution that, miraculously, would allow humans to continue their exploitation of resources without causing poverty and environmental pollution.

The propensity to mistake abstract theoretical physics for a recipe that would solve problems of political reality can also be observed among those campaigning against climate change, or so the novel suggests. During an excursion to the Arctic, in which Beard participates as the only scientist of a group of environmental activists, he sarcastically comments on the latter’s romanticization of both the natural sciences and their own idealism (77). When one of the activists appropriates Heisenberg’s
Uncertainty Principle for his condemnation of contemporary Western culture’s loss of moral certainty, an annoyed Beard rebuffs the idea that Heisenberg’s model has philosophical implications (76). Since everyone apart from the physicist longs to find solutions to present-day ethical concerns in scientific developments, however, Beard’s explanation of the Principle is dismissed with the same impatience with which he ridicules the campaigners’ naïve enthusiasm. The episode channels Gray’s critique of human self-delusion, as it mocks the quasi-religious longing for salvation most of the participants seem to share. Situational irony occurs when Beard shows symptoms of enchantment with the quantum mechanics he derided earlier in the story: in a conversation with a sculptor tellingly named Jesus, who shows genuine interest in learning about quantum theory, the two men soon happily share the romantic hope that “a genius would arise to propose an overarching theory binding all in a formulation of astounding beauty” (66). The human “need for meaning,” which Gray has identified as the root cause of the quasi-religious glorification of scientific innovation (Anatomy 295), does not only infect scientifically uneducated artists. Beard’s sudden enthusiasm belies the ironic resignation he usually parades with regard to his profession, drawing him as a man who failed his own aspirations but who harbours the longing for a science whose meaning extends beyond utilitarian application.

Another scientist character whose professional enthusiasm for the salvational potential of science is mocked in the novel is the postdoctoral researcher Aldous. Completely consumed by his political agenda, he seeks to convince his mentor Beard of the potential of artificial photosynthesis. The text ridicules Aldous’s evangelical sense of mission through Beard’s sarcastic indirect discourse, and the young researcher’s ecstatic verbiage: “It’s all out there, waiting for us to understand how to use it, and when we do, we’ll be amazed we ever thought of burning coal and oil and the like’” (25), adding that “If an alien arrived on earth and saw all this sunlight, he’d be amazed to hear that we think we’ve got an energy problem” (26-27). Aldous’s fascination with photovoltaic technology glorifies physical processes as divine bequests to humankind: “God’s greatest gift to us is surely this, that a photon striking a semiconductor releases an electron. The laws of physics are so benign, so generous” (27). Beard finds his colleague’s sense of mission tedious and morally questionable: “The essence of a crank was, firstly, to believe that all the world’s problems could be reduced to one, and be solved. And secondly, to go on about it non-stop” (27); “This was what he disliked about political people—injustice and calamity animated them, it was their milk, their lifeblood, it pleased them” (36, emph. McEwan’s). Beard happily mocks Aldous’s commitment to solar power. To him, “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” (25). Annoyed with idealism of any kind, Beard dismisses Aldous’s enthusiasm as well as the younger man’s professional know-how as a physicist.

The aging protagonist of Solar, who satisfies his occasional stirrings for the sublime with salt and vinegar crisps, does not wish to be reminded that dedication to science used to animate him as well. What is more, he suspects Aldous’s enthusiasm of being self-interested rather than idealistic. Beard recognizes his own carnal longings mirrored in the young colleague’s immediate change of topic when he is introduced to Beard’s attractive wife: “Tom Aldous was suddenly blessed with expressiveness and humour [. . . He] kept turning away [from Beard] and grinning, and self-consciously running his hand up his neck to touch his ponytail. At no point did he remember that the planet was in peril” (37). It is an ironic twist of the plot that Beard, not normally blessed with good character judgment, is correct this time: Aldous will begin a secret affair with his wife and, when caught by Beard in the latter’s dressing gown, will accidentally trip over a polar bear rug and break his neck. The young scientist’s death is rendered as slapstick comedy: it mocks sardonically his smug self-assurance, killing him off with flailing arms (89). Beard frames another of his wife’s lovers for Aldous’s murder and uses his colleague’s notes on artificial photosynthesis to re-energize his own career—with solar power. As Roman Bartosch has noted, “energy is central to the environmentalist endeavours of Michael Beard, and at the same time, the novel’s tragic course is set by energy, too: criminal energy” (124). Scientific progress, the text suggests, is driven by all-too-human motivations.

The novel’s focus on exposing human self-delusion addresses climate change exclusively in a comic manner and with regard to the characters’ individual interests. The story does not give conclusive evidence as to whether Beard has actually changed his mind, or whether he simply saw an opportunity for himself and his career when he used Aldous’s groundwork to develop a plant using solar power to produce photovoltaic energy. The episodic structure skips the years in which his transformation could have taken place, and in the only scene in which he explains in earnest the phenomenon of global warming, Beard is drunk (216). McEwan avoids serious discussions about the end (or a new way) of consumption for the sake of drawing his main character as an exaggeration and parody of William McDonough and Michael Braungart’s theses in Cradle to Cradle. In this book, the chemist and environmental theorist Braungart promotes more rather than less consumption of products, which are designed in a way that already takes into account their eventual recycling, and so contribute effectively to an endless circulation of material. The protagonist, who allusively shares Braungart’s initials and his first name, also complies with the chemist’s demand for more consumption—albeit, or so the novel scoffs, not of reusable products.
To demonstrate that scientific knowledge is best applied practically rather than elevated as a philosophical panacea, the novel again employs the slapstick mode. During the Arctic excursion, Beard overindulges in drink and salty snacks and has to quench his thirst with large quantities of water. When he is then fully wrapped in thermal clothing for his ride on a snowmobile, he can no longer suppress the need to urinate, and takes out his penis, which “attached itself to the zip of his snowmobile suit, [. . . and froze] along its length, the way only living flesh can do on sub-zero metal. He wasted precious seconds, gazing at his situation in shock. When at last he pulled tentatively, he experienced intense pain” (59). First sarcastically contemplating his “misfortune” that global warming had not yet taken enough effect to prevent such calamities, Beard quickly pulls himself together and solves the problem with practical ingenuity:

The rationalist in Michael Beard died hard. There was a problem, and he should attempt to solve it. He was reaching lugubriously into the inside pocket of his jacket. In his post-doc years he had worked for a while in low-temperature physics, but even as a schoolboy, as Fatso Beard, bad at games, a swot at science, he knew the basics. Pure ethanol froze at minus one hundred and fourteen degrees, everyone knew that. Brandy at eighty per cent proof would be forty per cent ethanol by volume, giving a freezing point of . . . minus forty-five point six. At last, the hip flask was in his hand, the top came off after only a brief struggle, and generously he poured his libation and within seconds he was free. (60)

Beard’s description of his brandy as a “libation” is an ironic reference to the quasi-religious hopes of salvation that are not warranted by scientific knowledge and its practical uses. After all, “the authority of science comes from the power it gives humans over their environment. Now and then, perhaps, science can cut loose from our practical needs, and serve the pursuit of truth. But to think that it can ever embody that quest is pre-scientific—it is to detach science from human needs, and make of it something that is not natural but transcendental” (Gray, Straw 20). In this context, it is significant, and by no means incidental, that the brandy episode is the only one in the novel in which science is linked to some form of rescue. The scene describes a specific situation in which knowledge of scientific facts solves a particular (i.e., limited) human problem in order to contrast applied science with the “sacred fetish of science” (Anatomy 389) which human beings hope will save them from the consequences of their sins, i.e., the problems caused by environmental exploitation and excessive consumption.

While slapstick illustrates the use of applied science for humankind, the comic strategy of the grotesque exaggerates human attempts to exploit for economic gain the belief in the capacity of science to repair environmental destruction. The speech with which Beard tries to persuade financial investors of the economic potential of
solar energy exemplifies Gray’s argument that moral progress is a modern myth: it shows Beard appealing to the investors’ selfish instincts, a strategy that exposes the belief in progress to be a fiction which is merely used to serve economic interests. Beard reduces the pursuit of scientific exploration to its utilitarian purpose rather than suggesting a common moral responsibility of science and economics: “This matter has to move beyond virtue. Virtue is too passive, too narrow. Virtue can motivate individuals, but for groups, societies, a whole civilisation, it’s a weak force. Nations are never virtuous, though they might sometimes think they are. For humanity en masse, greed trumps virtue. So we have to welcome into our solutions the ordinary compulsions of self-interest, and also celebrate novelty, the thrill of invention, the pleasures of ingenuity and co-operation, the satisfaction of profit” (149). The speech contains several of Aldous’s phrases and anecdotes that Beard had ridiculed only five years previously. Now parroting his late postdoctoral colleague, Beard evokes visions of “the planet” in peril (150) and of aliens visiting the earth and pointing out the potential of solar energy (153). In addition to this allusion to Beard’s plagiarism, the protagonist himself comes to serve as a comically repulsive embodiment of ravenous consumption for, in spite of being only “pre-hungry” before the speech, he eats nine salmon sandwiches (146-47) and subsequently has to struggle with rapidly developing nausea. The moment he finishes his lecture, he vomits behind the curtains of the stage: “The rhetorical flourish of [his] final phrases had a desperate air, his voice sounded thin in his ears, his conclusions were hollow after all. […] To the sound of respectable applause, he bent double while his burden, well lubricated by fish oil, slid soundlessly from him. He remained in that position for a few seconds, waiting for more. There was nothing” (156). According to Garrard, Beard is “sickened by his own hypocrisy, [and . . .] unable to control the promptings of his grotesque gut” (“Solar” 130). His physical actions belie his ideological arguments, casting Beard as an opportunist who is driven by satiating his appetites, but who only ever achieves fullness, never satisfaction. His own appetite is symptomatic of the “greed trumps virtue” (149) ideology he tries to employ, a farcical invocation of both capitalist values in twenty-first-century consumer culture and Mandevillean philosophy, which holds that “Private Vices […] may be turn’d into Publick Benefits” (Mandeville 371). The grotesque exposes the myth of progress as a fiction that is being employed to maintain the status quo rather than to further scientific advancement.

As suggested by the discussion so far, McEwan’s Solar presents science through comic strategies in order to highlight it as ill-equipped for transcendental significance because it is defined by human interests. Proceeding from this assessment, the
novel’s third part suggests that human hubris and selfishness not only confine, but positively prevent the acquisition of knowledge and understanding. Demonstrating that the path to progress is mined with petty concerns, the comically distorted exposure of human flaws, which informed the first and second parts of Solar, are now complemented by a tragicomic climax and a more complex characterization of Beard that extends his function as a mere parody of over-consumption.

Before bringing the main storyline to a close that ironically suggests poetic justice—for it has the protagonist exposed as a criminal, his solar energy plant destroyed by the man he had framed for murder, and Beard himself suffering a heart attack—the third part introduces further details about the protagonist’s younger years. In an analepsis, Beard reminisces about his childhood, his student days at Oxford, and the beginning of his relationship with Maisie, who would become his first wife. This embedded narrative, which was first published separately as a short story under the title “The Use of Poetry” in The New Yorker, sheds light on the background of Beard’s self-centred and purpose-driven attitude to intellectual exploration. In his attempt to seduce Maisie, a student of English with an interest in John Milton, Beard asks a third-year student of literature “what to read, what to think” (199) about the early modern author, and browses some of Milton’s works himself, including what he memorizes as the writer’s poem on light. The words that Beard recalls reciting to Maisie, however, are neither a poem’s “last dozen lines” (200), nor from the sonnet⁴ that has become known as the aforementioned poem at all: instead, the verses Beard learned by heart are lines 51-55 from Book III of Paradise Lost:

\[
\text{thou Celestial light} \\
\text{Shine inward, and the mind through all her powers} \\
\text{Irradiate, there plant eyes, all mist from thence} \\
\text{Purge and disperse, that I may see and tell} \\
\text{Of things invisible to mortal sight. (qtd. in Solar 201)}
\]

During his rendezvous with Maisie, he praises these lines for what he understands they express, “talk[ing] to her of [the poem’s] pathos, a blind man lamenting what he would never see, then celebrating the redeeming power of the imagination” (201). Having studied the epic poem only hastily, Beard is oblivious to its various implications and fails to understand that Book III deals with the anxious struggle of a poet torn between confidence in and doubts about his inspiration (Fallon 9-10). Milton’s verses do not lend themselves easily to Beard’s straightforward reading of despair and salvation. Moreover, the epic narrator of Paradise Lost seeks not merely sight, but insight into the meaning of Creation, an enlightened knowledge that God provides in
Book III when he explains the importance of “human free will and moral agency” (Reisner 63). Beard’s cursory dealing with Milton’s work and with literary scholarship has him treat both the poet’s verses and their interpretation solely in view of their use for him, i.e., how they might be applied to cast the protagonist in the light of an emotionally sensitive man attractive to the woman he desires.

Since his charade succeeds with Maisie, whose acquaintance with Milton’s work appears to be just as fleeting as his, the scientist never bothers to probe more deeply into the epic poem and its different metaphysical implications, but henceforth enjoys believing that “there was nothing [the arts people] talked about [. . .] that anyone with half a brain could fail to understand” (202). The implicit mockery of the title of the original short story suggests that for Beard, poetry has meaning when it fulfils a function. The Milton episode betrays his positivistic mindset, which in his youth defines his approach to relationships and the arts, but which in his middle age comes to dominate his attitude to scientific work as well. There is considerable irony in the fact that the scientist Beard finds a way to use poetry he has only half understood, but he fails to conceive an application for the scientific projection he himself has developed, the Beard-Einstein-Conflation that earned him the Nobel Prize.

Given the theme of Sonnet 16, however, which features the poetic contemplation of loss of sight as a consequence of supposed moral failure, Beard’s lack of poetic comprehension mocks not only the protagonist’s dilettantish attitude toward literature. It also characterizes his subsequent wasting of his own scientific ambition and intellectual energy as irresponsible:

When I consider how my light is spent,
Ere half my days in this dark world and wide,
And that one talent which is death to hide
Lodged with me useless, though my soul more bent. (“Sonnet” 1-4)

The intertextual allusion implies that Beard’s pursuit of instant gratification rather than thorough understanding has undermined his intellectual abilities and corrupted his moral agency. In his youth, Beard exploited poetic knowledge but dismissed the aesthetic and intellectual challenge it posed. As a middle-aged man, he uses science to gain personal status and material wealth. The text’s reference to Sonnet 16 sardonically connects both forms of ill-consideration, for Beard’s proverbial blindness to Milton’s words anticipates his future engagement in scientific research as a mere means to an end as ill-fated from the beginning.

To sum up, Solar presents science as comedy in order to mock human belief in salvation through technological advancement. The novel demonstrates McEwan’s
turn to “social satire,” which critics identified as a “new departure” in his writing in the twenty-first century (Head 24). Inspired by Gray’s consideration that “science and technology have given us powers we never had before, but not the ability to refashion our existence as we wish” (Anatomy 16), Solar argues that technological development must neither be equated with social progress nor be seen as having encouraged a moral improvement of mankind. By comically exposing scientist characters’ personal and professional flaws and by satirically denouncing the political and economic interests that impact contemporary research culture, it maintains that scientific knowledge must not be expected to solve problems that have resulted from the destructive nature of humankind. The novel is not the manual professing to instruct readers on how to meet environmental challenges that critics like Garrard hoped for. It is also not designed to offer an uplifting message for those already engaged in climate change activism. Instead, Solar employs various comic strategies to expose humanity’s delusions of moral advancement and to characterize science as an activity that is tied to the interests and afflictions of those who conduct it. The novel is an example of a narrative whose meaning is indeed its form: embedded in a realist tale, the comic strategies exaggerate the factual to focus the reader’s gaze and to issue a warning that human self-conception bears little resemblance to who and what we are. McEwan’s use of humour successfully debunks the myth of progress, but avoids answering the question of whether “poetry and religion are [indeed] more realistic guides to life” than “science and technology” (Anatomy 16). Following his intertextual bow to the poetic philosophy of Milton’s works, however, a reconsideration of the moral obligations of human agency and inspiration seems not an unreasonable approach to attaining self-knowledge.

NOTES
1/ Greg Garrard’s discussion of McEwan’s The Child in Time (1987) and the then still unpublished Solar is a well-known example for an anticipation that was to become disappointed (“McEwan”).
2/ Incidentally, McEwan has described Gray’s analysis of the political repercussions of the Western concept of modernity as the “most arresting account I’ve read of our current crisis” (“More”), an appreciation that was later used to advertise the paperback edition of Gray’s book (Al-Qaeda and What it Means to Be Modern).
3/ There have been several attempts to date the sonnet in question, which is either listed as Sonnet XIX (Patterson 26; Milton, Poetical 84), or as Sonnet 16 or XVI, respectively (Major 81; Selected 65); some editors have added the title “On His Blindness” (Poetical 84), while others use the poem’s first line as subtitle (“When I consider how my light is spent” [Selected 65]).

WORKS CITED


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