DOOMED TO HOPE? MARGARET ATWOOD'S ORYX AND CRAKE*

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Oryx and Crake (2003) is set in the near future in a world ruined by global warming, pollution and the abuse of scientific knowledge. It belongs to the tradition of dystopian fiction, envisioning a bleak future in which science and global capitalism have displaced any sense of moral agency in daily life.

There is a link between the bleakness of traditional dystopian fiction and the idea of apocalypse, which etymologically means disclosing the end. Apocalyptic motives prefigure the end of humanity and apocalypse is linked to excess, to human attraction towards crossing all moral, scientific and economic boundaries. My aims in this essay are, first of all, to analyse the apocalyptic elements in the scientific practices described in the novel as well as to explore the main characters' apocalyptic identities, that is to say, their drives towards excess, transgression and selfdestruction. Atwood does not indulge in dystopian pessimism, but subverts it by presenting a protagonist that suffers a personal catharsis in the course of the story and emerges as a morally responsible human being. The novel's open ending suggests the possibility of a new opportunity for mankind, a new beginning.

Key words: dystopian fiction, apocalypse, transgression, science, identity

Oryx and Crake (2003) está ambientada en un futuro cercano en el que el mundo está casi destruido por el calentamiento global, la contaminación y el abuso

del conocimiento científico. La novela pertenece a la tradición de la ficción distópica y predice un futuro desolador donde la ciencia y el capitalismo globan han desplazado cualquier comportamiento moral en la vida diaria.

Existe un vínculo entre las lúgubres perspectivas sugeridas por la ficción distópica y la idea de apocalipsis, que etimológicamente significa revelar el final. Los motivos apocalípticos anticipan el final de la humanidad y la llegada del apocalipsis está ligada al exceso y a la atracción humana por sobrepasar todos los límites morales, científicos y económicos. Mis objetivos en este ensayo son analizar los elementos apocalípticos presentes en las prácticas científicas descritas en la novela así como explorar las identidades apocalípticas de sus personajes principales, con especial referencia a sus impulsos hacia el exceso, la transgresión y la autodestrucción. Atwood no se recrea en el tradicional pesimismo de la ficción distópica sino que lo trastoca mediante un protagonista que experimenta una catarsis personal a lo largo de la novela y se convierte en un ser humano moralmente responsable. El final abierto sugiere la posibilidad de una nueva oportunidad para la humanidad

Palabras clave: ficción distópica, apocalipsis, transgresión, ciencia, identidad

Oryx and Crake was published in 2003, the year of the fiftieth anniversary of Crick and Watson's discovery of the structure of DNA and also the year when the entire human genome was sequenced. It belongs to the tradition of dystopian fiction which also includes Orwell's 1984 and Animal Farm, Aldous Huxley's Brave New World and H.G. Wells's The Time Machine and The Island of Dr. Moreau. Oryx and Crake shows the dystopian impulse to shake readers into an awareness of dangerous trends in our present world, envisioning a bleak future in which science and global capitalism have displaced any sense of

moral agency in daily life (Bosco 2010: 160). The novel is also linked to some popular fictional genres such as the castaway-narrative, the detective and action thriller, the romance story and the journey diary. In this way *Oryx and Crake* constitutes an overview of literature and culture as well as a critique of ancient and modern values and modes of being. As a narrator, Snowman/Jimmy belongs to the tradition of narrators such as Job (the Bible), Melville's Ishmael (*Moby Dick*), Mary Shelley's Walton (*Frankenstein*), and Vonnegut's John (*Cat's Cradle*), who bear witness to the folly and grief that constitute human experience (Wilson 2007: 399).

Atwood's novels' The Handmaid's Tale (1985), and The Year of the Flood (2009) also belong to the tradition of dystopian fiction, and together with Oryx and Crake are examples of speculative fiction because, according to Atwood, "the science fiction label belongs on books with things in them we can't yet do or begin to do, such as going through a wormhole in space to another universe; and 'speculative fiction' means a work which employs the means already at hand, such as DNA identification and credit cards, and takes place on planet Earth" (Atwood 2005: 157). Atwood employs the conventions of the diary and the epistolary novel in The Handmaid's Tale, where a female first-person narrator, known simply by the patronymic Offred, tells her story of confinement within a totalitarian state represented by the dystopia known as Gilead. Women's identities have been reduced to their reproductive roles and their voices have been silenced. Offred is always aware of a world beyond Gilead and hopes for a different future as she addresses her audience. The Year of the Flood is a continuation of the narrative in Oryx and Crake, showing us the aftermath of a global catastrophe that has almost eliminated human beings from the face of the earth. The Year of the Flood covers roughly the same time-span and follows a similar narrative pattern to Oryx and Crake: it is told in the third person and opens by describing the situation of its protagonists in a post-apocalyptic present. The characters' former lives are unfolded throughout the narration, and, in the final chapter, the narrative joins up with the ending of Oryx and Crake.

There is a link between the bleakness of traditional dystopian fiction and the idea of apocalypse, which etymologically means "disclosing the end" (Thompson 1997: 13). Apocalyptic motives

prefigure the end of humanity and apocalypse is linked to excess, to human attraction towards crossing all moral, scientific and economic boundaries and overlooking the unwanted consequences.

In his survey of apocalyptic literature, Mark Bosco states that from the historical point of view, most apocalyptic texts prior to the eighteenth century either dealt directly with literal interpretations of the Book of Revelation or offered reinterpretations of the end time that implied an inner journey for the person who struggled for insight and moral certitude. For example, Dante's Divine Comedy evoked the interior spiritual struggles of moral development and the fear of eternal punishment that came as a consequence of following one's own selfinterested choices. The medieval Doomsday plays captured the popular imagination of everyone from kings to peasant-serfs and showed that how the individual behaved in the present would affect where he would be at the end of time. During the seventeenthcentury Protestant reformation, the most famous apocalyptic text was John Bunyan's Pilgrim's Progress (1678), where a pilgrim named Christian had to pass a land of temptation and apocalypse in his journey towards his heavenly reward. With the rise of the eighteenthcentury Enlightenment, two new modes of apocalyptic literature appeared: the rationalist utopia and the rationalist satire. These works shifted away from the explicit religious discourse of the end of time, and the secular displaced the sacred.

Throughout the nineteenth and twentieth centuries, other modes of apocalyptic literature found expression. Mary Shelley's Frankenstein (1818) offered the myth of the scientifically created monster, H.G. Wells wrote catastrophic tales in works such as The Time Machine (1895) and War of the Worlds (1898). The dystopian novels that proliferated in the first half of the twentieth century, such as Aldous Huxley's Brave New World (1931), George Orwell's 1984 (1949), and Ray Bradbury's Fahrenheit 451 (1953) imagined a dangerous and alienating future society controlled by the State or by self-interested elites within that network (Bosco 2010: 159-160).

I agree with Mark Bosco's statement that contemporary dystopian fiction is a variation of apocalyptic literature because it serves to critique actual cultural trends - political, economic or social

- observable in some form in the present situation of an author's life (2010: 159-160). Coral Ann Howells considers that the primary function of a dystopia is to send out danger signals to its readers (2006: 161). For Raffaella Baccolini, dystopian novels offer no space for hope in the story, only outside the story: only by considering dystopia as a warning can we as readers hope to escape such a dark future (2004: 520). My aims in this essay are, first of all, to analyse the apocalyptic elements in the scientific practices described in Oryx and Crake as well as to explore the main characters' apocalyptic identities, that is to say, their drives towards excess, transgression and self-destruction. In the case of Snowman/Jimmy, although we may say that apocalypse comes to him, his apathy and conformism make him partially responsible for the catastrophe. Oryx's and Crake's personalities are divided between emotion and pragmatism. Crake is emotionally numb and despises human achievements. He fantasizes about the end of humanity and its replacement by ecological humanoids perfectly adapted to their environment and without human beings' drives, instincts and passions. Oryx's extreme pragmatism with regard to emotional bonds and her instrumentalist view of human beings belittles human life, contributing to the apocalyptic scenario of the novel. These elements build the doom-laden vision of the world and the sombre predictions about mankind's destiny articulated in this work. However, Atwood does not indulge in dystopian pessimism but subverts it by presenting a protagonist that suffers a personal catharsis in the course of the story and emerges as a morally responsible human being. The novel's open ending suggests the possibility of a new opportunity for mankind, a new beginning.

Oryx and Crake is set in the near future in a world ruined by global warming, pollution and the abuse of scientific knowledge, where genetic engineering has created transgenic monsters and humanoid creatures in a post-apocalyptic scenario closer to conventional science fiction. This world is only populated by the protagonist, Snowman/Jimmy, and genetically engineered humanoids called Crakers. These were created by Snowman's best friend, Crake, in a secret experiment intended to generate a new race not troubled by sexual needs, aggression, religious and racial impulses (Rao 2006: 108). There are two narratives in the novel, one is focalized through Snowman and narrated in the present as he negotiates his life in this

post-apocalyptic world, and the other is focalized through Jimmy and told in the past. Shifts in narrative time correspond to shifts in the identity of the focalizer, and a gap emerges between the preapocalyptic Jimmy and his post-apocalyptic incarnation as Snowman (Foy 2007: 410).

The main protagonist has been split into two, with two different names, Jimmy and Snowman. Snowman's apocalyptic present is prefigured by the apocalyptic elements in his life as Jimmy and he exists in a state of double consciousness between "now" and "then" in an effort to escape from a devastated world and with the memories of twentieth-century civilization reminding him daily of what he has lost. He is so anxious to listen to a human voice that he starts having hallucinations and hears voices in his head: his lover Oryx's storytelling voice, and the voices of his friend Crake, his mother, and his former lovers. As his narrative mixes reality, memory, and fantasy, we realise that Snowman is telling stories as a way to reclaim his own identity and to avoid sinking into a world where words lose their consistency, use and meaning (Rao 2006: 111). In his past life as Jimmy, Snowman had defended the values of art and literature, but had had a mercenary job as writer of advertising copy. Paradoxically, he has now become a defender of words and stories precisely when there is nobody to listen. The Crakers' brains have been deprived of passion and imagination, consequently they cannot understand him. The lack of these distinctively human qualities in Crake's creatures reminds Snowman of his radical isolation: "He is Crake's prophet now, whether he likes it or not; and the prophet of Oryx as well. That, or nothing. And he couldn't stand to be nothing, to know himself to be nothing. He needs to be listened to, he needs to be heard. He needs at least the illusion of being understood" (OC, 120). Snowman's memories of his existence as Jimmy constitute the second narrative in the novel, the one which is told in the past till, near the end of the novel, both narratives coincide and readers can then understand who the Crakers are, the reasons for their existence and why the world has suffered this catastrophe.

If the threat of nuclear weapons was a stimulus to apocalyptic thinking in the post-war years (Garrard 2004: 102), in the world depicted in *Oryx and Crake*, the coming of an apocalyptic situation is

linked to the as yet unexplored possibilities of genetic engineering, biotechnology, and clonation, and also to the development of computers and the Internet as a virtual world where identities can be supplanted and intimacy trampled on with impunity. Like the real one, the virtual world displays the best and the worst of human behaviour, favouring the human drive to transgress moral, personal and scientific limits.

Science has played an important role in Atwood's personal and professional development. She has confessed that "I grew up among the biologists. My father was a forest entomologist [...] I myself took zoology, botany and chemistry in the last year of secondary school [...]. I was very good at them, and if I had not been kidnapped by literature I would have become a biologist, just like my brother" (Atwood 2005: 155). Getting the science right is a priority for Atwood and she is careful to distinguish her own speculative fiction from sci-fi fantasy fiction in that the former deals with current scientific knowledge whereas the latter represents a world moulded by imaginary scientific developments, by things human beings cannot yet do or begin to do.

Atwood's vision of science has always been positive. Science has to do with knowledge and it is a tool, and, like all ways of knowing and tools, they can be used for good or ill. In itself, science is neutral and cannot follow the ethical relativism that accepts all possible interpretations as correct. There are good and bad interpretation of data (Rogers 2007: 159). Also, Atwood is fascinated by the inexorability of the rules of biology and physics: "So, why not include biology in a work of fiction? Works of fiction are about human beings, however disguised, and human beings exist on a biological level. The rules of biology are as inexorable as those of physics: run out of food and water and you die. [...] Human civilizations are subject to the same law" (Atwood 2005: 157).

The classical ideals of science are truth-seeking and rational enquiry. Furthermore, science also aims at making connections among apparently disconnected things, at establishing links among alien phenomena. Science contributes to our understanding of the ultimate reasons for everyday phenomena, entities and situations, providing us with tools to look at the world and at ourselves with new eyes. Some

of the methods of classical science are counting, naming and mapping, and there is much that is beautiful about these activities.

All these ideals of classical science are absent from Oryx and Crake where scientific practices are presided by the excesses of human arrogance, instrumentalism and the pursuit of profit. The figure of the scientist playing God is presented in the novel as a consequence of an instrumentalist approach to nature, derived from man's separation from it. Jimmy's father, a scientist involved in biotechnological research, does not question the kind of science or technological developments he is involved in. He changes jobs from one biotechnological company to another, which involves their moving towards a new residential Compound, nicer but with a tighter security. This separates the scientific elite from the realities of normal life and sets them above ordinary people (Stein 2010: 143). Those who are not part of that elite inhabit the pleeblands, surrounded by pollution, violence, prostitution and the vices of the capitalist system. Jimmy's father never expresses moral doubts about the ethics of his job, and dismisses his wife's objections to his scientific achievements:

'It's the neuro-regeneration project. We now have genuine human neocortex tissue growing in a pigoon. Finally, after all those duds! Think of the possibilities, for stroke victims, and...'

'That's all we need,' said Jimmy's mother. 'More people with the brains of pigs. Don't we have enough of those already?'

'Can't you be positive, just for once? All this negative stuff, this is no good, that's no good, nothing's ever good enough, according to you!'

'Positive about what? That you've thought up yet another way to rip off a bunch of desperate people?' said Jimmy's mother in that new slow, anger-free voice (*OC*, 63-64).

Sharon, Jimmy's mother, used to work as a microbiologist at OrganInc Farms, the same company his father works for, but after leaving her job to be home with her son, she sank into a deep depression. Eventually, Sharon will abandon Jimmy and her husband

in order to become an activist against genetic engineering.

Jimmy's hypertechnological world is alienated from nature and from the methods of classical science. In fact, in the novel Nature with a capital "N" refers to Mother Earth's organic processes whereas nature refers to manufactured nature (Staels 2007: 433). The only animals Jimmy is familiar with are the pigoons (transgenic pigs), the wolvogs (wolf dogs), the snats (snake rats) and the rakunks (racoon and skunk); he plays with pictures of cells in his mother's computer, but he has never dissected an animal.

Atwood criticises the misuse of science and exposes the arrogance of the Promethean scientists whose pride and rigidly narrow thinking leads them to pursue their misguided projects (Stein 2010: 143). They overlook the unwanted side effects that may derive from creating genetically-mixed animal species or from using these new animals' tissues and cells as part of sophisticated medical treatments which are available only for those who can afford them. Excessive pride leads to disaster and apocalypse, as in *Dr. Faustus*'s story and in Mary Shelley's *Frankenstein*.

The details of Jimmy's life anticipate the apocalyptic situation he will have to face years later as Snowman. Apocalypse is linked to excess, to abuse, and Jimmy's existence is governed by excess. He witnesses the technological and scientific transgressions carried out in his father's biotechnological company, he suffers extreme personal isolation due to the absence of his mother, he is physically separated from nature and open spaces, and socially alienated due to his residence in the Compounds, where excessive surveillance over all aspects of human life endangers personal freedom. Control and discipline are guaranteed by private security corpses, the "CorpSeCorps", who are in charge of detecting those individuals with deviant behaviour who may become a potential threat for the Compounds. The scientific community demonizes the unknown pleeblands on the other side of the dividing line as a dangerous space of chaos, violence, disruption, and uncertainty, yet they are at the same time a source of attraction and furtive desire. As a child, Jimmy longed to visit the pleeblands and to go to the sea, both boundless and chaotic spaces (Staels 2007: 436)

Jimmy is the son of two scientists involved in biotechnological research. "Jimmy's father worked for OrganInc Farms. He was a genographer [...] he'd been one of the foremost architects of the pigoon project [...]. The goal of the pigoon project was to grow an assortment of foolproof human-tissue organs in a transgenic knockout pig host [...]" (OC, 25). Jimmy's mother was a microbiologist who studied the proteins of the bioforms unhealthy to pigoons (OC, 33). Jimmy grew up in the Compounds, which are the residential and working areas for the privileged classes, mainly scientists, and which are free from the violence of the Pleeblands (plebeian lands), where the masses live.

The absence of Jimmy's mother during his early childhood caused Jimmy unspeakable sadness. He will never be able to overcome the trauma of physical and emotional deprivation. He struggles with a sense of failure and guilt, sorrow and pain, and with a longing for an imaginary happy mother who loves him unconditionally (Staels 2007: 438). As an adult, we perceive Jimmy's understanding of the world through individual victimization. He has a limited sense of an individual's ability to effect change, which is why he often retreats into a state of apathy or drunkenness. For Jimmy, the world is far too big for his actions to make any difference, and he mocks his mother's activism for its naivety, "The story of his deviant mother had followed Jimmy around like an unwanted dog" (OC, 214). After his mother's execution, Jimmy concentrates on his feelings of grief and nostalgia, but does not question the kind of totalitarian state in which he lives, with policemen and security people constantly looking for dissidents, nor does he try to understand the positive elements in his mother's opposition to the abuses of genetic engineering. This is parallel to Jimmy's reluctance to accept his share of the responsibility for the outcome of the BlyssPluss plague and for precipitating the end of humanity (Foy 2007: 417)

From adolescence onwards, Jimmy turns into a multiple addict, which is a symptom of his suffering. He becomes a misfit and develops a chaotic personality in a world where chaos is expelled to the pleeblands: he smokes weed, drinks alcohol, has sex compulsively, watches disgusting porno Internet sites.

Jimmy defines himself as a "words person" unlike his father and Crake, who, as scientists, are repeatedly defined as "numbers persons". He shows a particular sensitivity towards language, "He compiled lists of old words too -words of precision and suggestiveness that no longer had a meaningful application in today's world [...]. He'd developed a strangely tender feeling towards such words, as if they were children abandoned in the woods and it was his duty to rescue them" (OC, 230). But he also evokes obscene terms such as "Saggy boobs [...] Bunfaced tofubrain. Thumbsucking posterboy. Frigewoman. Sell his granny. Wobblebummed bovine. Bladderheaded jerk" (OC, 293). All these abusive terms, curses, profanities and improprieties point to a destructive force inside him which results from feelings of unhappiness and isolation (Staels 2007: 440). He distances himself from the technological background in which he grew up, and after graduating in high school, Jimmy is accepted by the Martha Graham Academy, which had been a prestigious Humanities School at the end of the twentieth-century, but is now a degraded place for students who are not numbers persons. Jimmy knows that "a lot of what went on at Martha Graham was like studying Latin, or book-binding: pleasant to contemplate in its way, but no longer central to anything" (OC, 219).

Jimmy's moral blindness and his apathy will prove fatal for him and for humanity. Although he dislikes Crake's insensitivity and his unemotional personality, Jimmy feels attracted by the mystery Crake creates about him. Jimmy is Crake's dark double, a "words" person in a world which values "numbers" persons, a young man who cannot control his emotions, a freak interested in humanities in a society which has relegated them, "Crake was top of the class [...] he was snatched up at a high price by the Watson-Crick Institute. Once a student there and your future was assured. It was like going to Harvard had been, back before it got drowned" (OC, 203). Jimmy's arts-based education at the Martha-Graham Academy and his love for words and language do not contribute to enhance his knowledge of the world and of human beings. The women he meets at the Martha-Graham Academy, whom he defines as "semi-artistic, wise-wound [...] generous, caring, idealistic women" (OC, 222) don't mean much to him, and he is unable to develop a serious and rewarding relationship with any of them; he is always looking for the next in the series.

After graduating, Jimmy gets a job at an advertising company, AnooYoo, which "was a collection of cesspool denizens who existed for no other reason than to prey on the phobias and void the bank accounts of the anxious and the gullible" (OC 290). He is not deterred by the fact that one of those idealistic women at the Martha-Graham Academy committed suicide some months after getting a job at AnooYoo. Despite his cynicism about his job, Jimmy devotes his talent to convincing potential customers of the endless possibilities of physical and self-change, and the process relies as much on deceit as does Crake's science. Jimmy's senior thesis on self-help books in the twentieth century ironically prepares him to fulfill the same purpose as those books but more overtly as the agent of industry. This way he accepts the philosophy of the apparently deregulated corporations that rule the economic world in Oryx and Crake: these companies need the numbers persons to create products and the words persons, like Jimmy, to sell them (Chivers 2007: 389). He moves another step forward in this direction when he accepts a job to market the BlyssPluss pill created by his friend Crake without questioning either the science or the ethics of this project. Jimmy's life of ignorance and blindness contributes to the final apocalypse described in the novel. Once the human race has been destroyed, Snowman/Jimmy gradually starts to see and worry about explaining what happened to future descendants "How did this happen? Their descendants will ask, stumbling upon the evidence, the ruins" (OC, 260). He also admits to his responsibility in Crake's irrational project, which is the first step towards his emergence as a morally responsible human being, although maybe it's too late, "Some of that darkness is Snowman's. He's helped with it" (OC, 389).

Crake, the novel's villain, is another example of an arrogant Promethean scientist. He remains monstruous behind computer screens and technological experiments. His real name is Glenn after the Canadian pianist Glenn Gould, whom Atwood believed to have suffered from Asperger's disease (Wilson 2007: 403). He takes the name Crake as his username for the videogame show Extinctathon from the nearly extinct red Australian bird. He is the typical "numbers person" who despises art and humanities, "'Art', said Crake. 'I guess they still do a lot of jabbering about that, over where you are. What is it Byron said? Who'd write if they could do otherwise? Something like that' " (OC, 196); "'So that's what art is, for the artist,' said Crake.

An empty drainpipe. An amplifier. A stab at getting laid' "(OC, 198). Crake is blind to human feelings and is emotionally empty and repressed, as we can appreciate when he witnesses the horrifying death, the slow decay of his mother's body (OC, 215).

Some of the hints of the coming apocalypse are suggested by the appalling videogames Crake and Jimmy play as teenagers, which reveal Crake's nihilistic vision of mankind and suggest his instrumentalist approach to human beings. In the game Blood and Roses, the Roses side plays with human achievements, whereas the Blood one plays with human atrocities. The game equates human massacres with artistic creation, "The exchange rates - one Mona Lisa equalled Bergen-Belsen, one Armenian genocide equalled the Ninth Symphony plus three Great Pyramids - were suggested, but there was room for haggling." (OC, 90). When Jimmy points out that although the Blood player usually wins, winning implies inheriting a wasteland, Crake replies that this outcome is the point of the game, thus emphasizing the aggressive and violent instincts in human nature and overlooking those other aspects that belong to human nature as well, such as creativity, generosity and the need to reflect about who we are. Crake also loves playing Extincthaton, which is a battle of wits between the novice player and the Grandmasters, as each wants to best the other's knowledge of the evolution of extinct plants and animals. This perverse attraction and revelling in the consequences of human neglect of nature, and of pollution and global warming, this fascination with extinction prefigures Crake's future plan to eradicate the human species and to cause the apocalyptic situation Snowman is experiencing now.

Like other scientific geniuses rewarded by society, Crake is a demiautistic brainiac who tries to conform to the masculine, technocratic world of the coumpounds, "'I don't believe in Nature either.' 'Or not with a capital N' " (OC, 242). Crake graduates at the Watson-Crick Institute, renamed as Asperger's U by its own students due to the "high percentage of brilliant weirdos that strolled and hopped and lurched through its corridors. Demi-autistic, genetically speaking; single-track tunnel-vision minds, a marked degree of social ineptitude" (OC, 228). When visiting the university, Jimmy sees enormous butterflies with wings the size of pancakes and asks Crake

if they are real. Crake then argues that it doesn't matter how the butterflies were created, what matters is the result: "'If you could tell they were fake,' said Crake, 'it was a bad job. These butterflies fly, they mate, they lay eggs, caterpillars come out." (OC, 236). Crake's instrumentalist approach to nature has convinced him that animals and insects created in a laboratory are the same as those naturally occurring in nature. For him the natural world is part of an enormous laboratory that he can control. He embodies the figure of the scientist playing God, whose overconfidence in the power of science and technology leads to a complete disregard for ethics (Glover 2009: 53)

Crake starts to work for the RejoovenEssense company where he develops two simultaneous projects that will solve the environmental challenges of our century, particularly overpopulation. One is the BlyssPluss pill, which promises youth, beauty, energy, wellbeing, unlimited supply of libido and the definite birth-control method. The other is the formation of genetically spliced humanlike creatures, the Crakers, who will replace humans on earth when BlyssPluss wipes human beings out, because this pill contains the virus for a "rogue hemorrhagic" (OC, 380), and, of course, this is unknown to its worldwide consumers. Crake has made Jimmy immune to the hemorrhagic, without Jimmy knowing, so that Jimmy will survive to take care of the Crakers (Hengen 2006: 82). The Crakers' brains have been altered and their destructive features have been "edited out" (OC, 366). They only eat leaves and grass, thus they have plentiful food, and their sexuality is similar to that of the rest of the mammals, except man. They come into heat at regular intervals. The Crakers also lack a sense of humour and ambiguity and would have no need to invent any harmful symbolisms, according to Crake. Also, they are programmed to die at age thirty (OC, 356). These humanoids conform to his idea of an ecological utopia. If human beings are destroying the world, then he has to alter humans radically to ensure this destruction can no longer continue (Glover 2009: 54). In his children, Crake expels the human feelings, desires, and bodily drives that he wishes to extinguish in himself and which he sees grotesquely reflected in Jimmy, his repressed dark shadow (Staels 2007: 437).

Crake's humanoids are unable to achieve the level of progress that our contemporary civilization has reached and by designing them as ecologically sustainable, he makes sure the Crakers will not destroy the planet, as we human beings are doing. Taken from a certain perspective, the Crakers form an ideal community who fulfil the requirements of a kind of ecotopia, such as diversity and mutual respect for the Other. The problem is that for this ecotopia to exist, Crake must eliminate mankind and repopulate the world with his humanoids, who appear closer to nature, but, ironically, are the product of a laboratory experiment. In order to guarantee his project's success, Crake has developed an extreme instrumentalist attitude and has separated himself completely from nature and his fellow beings. His pursuit of the ecological dream of a human being perfectly adapted to nature runs the risk of ideological intolerance with regard to the conflicting tendencies that make us human: love, creativity, imagination, hate, envy, competition, territoriality, etc. Crake thinks that imagination is the main downfall of humanity because the possibility of imagining our own deaths is responsible for overpopulation, "human beings hope they can stick their souls into someone else, some new version of themselves, and live on forever" (OC, 139).

In the utopian world Crake desires, there is no room for art or imagination because symbolic thinking would precede the invention of idols, funerals, ceremonies, the afterlife, sin, slavery and war. Although some of these features are not positive attributes, they are the elements that separate us from animals. Our ability to reflect upon the characteristics of nature and of humanity separates us from nonhuman nature and highlights that we humans are both a part of nature and apart from nature. Crake's insistence on his humanoids being just a part of nature implies a rejection of culture and thus of a part of what makes us human (Glover 2009: 57).

Crake's wish to eliminate his humanoids' potentiality for art and imagination is ironically undermined by his decision to make Jimmy immune to the Juve virus. Crake leaves Jimmy as a shepherd for the Crakers and during the time he spends with them, he realises that they are starting to develop the human features Crake wanted to remove from their brains. Some Crakers look worried, a condition that cannot appear if there is no imagination, no ability to think about the future. Also, one of them is getting to be a leader, something Crake

wanted to avoid, "Watch out for the leaders, Crake used to say. First the leaders and the led, then the tyrants and the slaves, then the massacres. That's how it's always gone" (OC, 184). Consequently, Crake's project to stop human progress in its good and bad aspects is doomed to failure. The presence of three other survivors confirms that Jimmy is not the last man on earth and that Crake's virus has not been able to eradicate mankind.

The apocalyptic features of Oryx are also connected to the moral transgressions of Jimmy's existence and prefigure the final catastophe he finds himself in. Oryx is an enigmatic character and reminds us of Zenia, the sexual predator in Atwood's novel *The Robber* Bride (1993). Like Zenia, Oryx's story is presented through another character's narration, in this case Jimmy's. She is constructed from different scraps of information, and the proliferation of details about her life and her past obscures her from the reader (Tolan 2007: 286). The teenage Jimmy sees Oryx for the first time on a pornographic website for paedophiles. At that time Oryx is an eight-year old girl, and, for some reason Jimmy is captivated by her, "Her name wasn't Oryx, she didn't have a name. She was just another little girl on a porno site. None of those little girls had ever seemed real to Jimmy they'd always struck him as digital clones- but for some reason Oryx was three-dimensional from the start" (OC, 103). Jimmy will meet Oryx again some years later when he starts to work for Crake at the Rejoov Compound. Oryx has also been hired by Crake in order to teach and instruct the Crakers, the humanoid creatures, on a number of subjects. Oryx and Jimmy start a relationship that shows all of Jimmy's secret feelings and unconscious desires. Jimmy wishes to be truly loved and to be made happy by Oryx. In her encounters with Jimmy, Oryx tells him about her life story which includes being sold by her parents, child labour, extortion, pornographic films, sex slavery and prostitution. Her narration borders the limit of credibility, although we as readers know that child abuse is a crime that takes place every day (Tolan 2007: 287).

Jimmy is fascinated by Oryx's narration, basically because she has lived all her life on the other side, amidst chaos, violence and misery. Oryx's existence in the pleebland, the *locus* of Jimmy's interest as a child, contrasts with Jimmy's artificial existence in the safe compounds (Staels 2007: 443). For Jimmy, Oryx is a reflection of his

internal chaos and is a victim like himself. He believes they both share the story of victimization by a cruel mother who, in the case of Oryx, sold her. But Oryx refuses this role of victim and questions the fantasy object he has made her into. Significantly, the only woman who does not empathize with Jimmy's story of abandonment is Oryx," So Jimmy, your mother went somewhere else? Too bad. Maybe she had some good reasons. You thought of that?. Oryx had neither pity for him nor self-pity. She was not unfeeling: on the contrary. But she refused to feel what he wanted her to feel " (OC, 225). While Jimmy's indignation against his mother persists, Oryx has forgiven her mother for selling her into prostitution. She has a pragmatic sense of the social and economic context that drove her mother to do what she did, "She herself would rather have had her mother's love [...] but love was undependable, it came and it went, so it was good to have a money value, because then at least those who wanted to make a profit from you would make sure you were fed enough and not damaged too much" (OC, 146). Jimmy considers that his sexual relationships with Oryx are completely different from those performed by those paedophiles in Oryx's past, " 'I don't do them against your will' " (166), but Oryx just replies, " 'What is my will?' " (OC, 166). Oryx's sexual availability and her pliancy question the line between free will and necessary compliance, and Jimmy has to admit his passive and present contribution to her subjection (Tolan 2007: 290). Oryx never feels pity for Jimmy or selfpity, quite the opposite, she is always appealing to the light side of his soul (Staels 2007: 443). Her optimism proves fatal in the end because she fails to see the terrible consequences of Crake's project, "But I would never leave Crake. I believe in Crake, I believe in his' -she groped for the word- 'his vision. He wants to make the world a better place [...]' " (OC, 377). Oryx will die at the hands of Crake, and Jimmy, who shares Oryx's blindness with regard to Crake, will be left alone in an apocalyptic world where mankind has been eliminated. As a character, Oryx shows a negative attitude towards herself as a human being. Her casual acceptance of each person's economic price transgresses the consideration of human life as valuable in itself and exposes Jimmy's sexually debased world of web entertainment which dehumanizes women like Oryx (Bosco 2010: 168).

Margaret Atwood poses serious moral issues in *Oryx and Crake*, such as the consequences of human greed, the role of science and

humanities in contemporary life, and the irresponsible uses of technology. Science is connected to knowledge and knowledge to light and wisdom, in fact, owls symbolise wisdom because they can see in the dark. But there are no owls in *Oryx and Crake*, probably because man's alienation from nature has extinguished them. Images of defective vision and blindness proliferate throughout the novel. The tragedy of the two main characters, Jimmy/Snowman and Crake is their inability to accept their nature as complex human beings which includes dark sides and internal chaos. Crake and Iimmy live in a hypertechnological world where imagination, personal freedom and creativity are becoming extinct and everything is oriented toward profit, safety and control. Jimmy defines himself as a words person, but his love for words does not imply faith in their power to communicate and to imagine. Jimmy does not use words to reflect on himself or his world, he just believes humanities and art are central to anything. He is fond of beautiful and old worlds which are fossils for him, proofs of a past human existence, but without life. Jimmy accepts a subaltern role for the humanities and art and does not believe they can influence the development of science and technology. He writes ads, he plays with words instead of creating a world with them, or trying to change that same world. As a "numbers persons", Crake's vision is also fatally limited and derives in intellectual obsession and personal and world destruction. His science is far from the values of objectivity, rationality and empiricism associated with classical science and which have provided human beings with knowledge about themselves and the world. Crake despises art as a valuable example of human creativity, and considers the expression of emotions a waste of time. Crake is blind to the fact that art and literature also provide valuable knowledge about the world, which is connected to the knowledge provided by science.

Despite her sombre portrayal of a post-apocalytic world, Atwood's dystopian narration holds out hope for a new beginning. Throughout the novel, Snowman has kept on talking to himself as if trying to hold tight to language, the essential human feature. Snowman yells, cries, shouts, thinks aloud, implores, asks. This way he is emphasising his humanity and fighting to keep his sanity. From time to time he is overwhelmed by the fact of his loneliness and holds on to language, to the repetition of words, as a source of psychological

strength and as a way to remind himself that he is still human and alive. He also feels the urgency to rescue words from oblivion: "'Hang on to the words,' he tells himself. The odd words, the old words, the rare ones. Valance. Norn. Serendipity. Pibroch. Lubricious. When they're gone out of his head, these words, they'll be gone, everywhere, forever" (OC, 78); "'Homer,' says Snowman, making his way though the drippingwet vegetation. 'The Divine Comedy. Greek statuary. Aqueducts. Paradise Lost. Mozart's music. Shakespeare, complete works. The Brontës. Tolstoy [...] Heart transplants. Polio vaccine [...]' "(OC, 91). By evoking the story of his life as Jimmy, Snowman suffers a personal catharsis that clarifies his moral complicity in Crake's genocidal scheme (Bosco 2010: 170). Also, he decides to use storytelling as an act of resistance against Crake's project for the Crakers. Crake had tried to eliminate the ability to tell stories from his humanoids' brains, but he had not been completely successful. Snowman decides to make those creatures more human, providing them with a religious and mythical story about their origins (OC, 117-121).

The novel's ambiguous ending suggests a certain optimism for the future of humanity. Some Crakers inform Snowman that "Some others like you came here" (OC, 423). Later on he sees smoke and footprints in the sand (this is a clear echo of Robinson Crusoe and Friday's footprints) and cautiously approaches three other battered human survivors on the beach. He is forced to move from passivity to action and he considers several possibilities, "What next? Advance with a strip of bedsheet tied to a stick, waving a white flag? [...] Should he kill them in cold blood? Is he able to?" (OC, 432). Snowman feels tempted to indulge in his usual irresolution and would like someone to tell him what to do, but for the first time in his life, he remembers without bitterness his mother's words before she was executed: "Oh Jimmy, you were so funny. Don't let me down" (OC, 433). His mother had always believed in the power of individual action to change things, and Snowman seems to assume the risks of making a choice at the very end of the novel. What the novel does not clarify is the nature of Snowman's choice and the extent to which he has learned about human nature. Will he approach these persons to tell them his story? Will he try to kill them? Will he show his vulnerability? We ignore whether Snowman will be able to bridge the gaps that separate him from these other human beings, but after the dreadful experience of believing he was the last man on earth, Snowman has the chance to start again by contacting those three survivors on the beach. The destruction of our environment, the eradication of mankind haven't happened yet and may never take place if we choose ways alternative to instrumentalist approaches to nature, to the misuse of contemporary scientific advances and to the pursuit of profit at any expense. Artistic creation and the production of scientific knowledge are both fundamental human activities, and both imply observation and representation, through images, words or numbers. In *Oryx and Crake*, Atwood suggests that neither art nor science can exist alone. Culture, art, language, and all human achievements can moderate our inner drives towards self-destruction and apocalypse and help us believe that we as a species are doomed to hope.

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