The Two Cultures Debate Revisited in the Posthumanist Age: Margaret Atwood's *Oryx and Crake* as a Case Study

Lanlan Du

Shanghai Jiao Tong University
E-mail: dulanlan@sjtu.edu.cn

Abstract

This article analyses Canadian writer Margaret Atwood's first novel in the *MaddAddam Trilogy*, *Oryx and Crake* as a counter-example of the healthy development of the future higher education and argues that future university education should integrate science and humanities to cultivate both scientifically-savvy and empathetic citizens. Starting from the 'two cultures' debate that British scientist and novelist C. P. Snow launched in 1959, the essay looks into the breakdown of communication between scientists and humanities intellectuals as a major hindrance to solving the world's problems. The dire consequences of the division between sciences and the humanities, with the former overpowering the latter, are vividly shown in *Oryx and Crake*. As the two cultures debate raises the most profound question about the direction of academic education and Atwood's novel highlights science's repercussions on the fate of human beings and posthumans, the article engages with the two cultures motif and proposes an analysis of the structure of feeling in *Oryx and Crake* to reveal how profit-driven techno-capitalism fails to cultivate empathetic citizens. The first part reflects on the relevance of the two cultures controversy to today's situation. The second part analyses the fictional world's dominant belief that facilitates individuals' character development and the third part focuses on Crake's affective responses that result from such cultural ambience. The article considers *Oryx and Crake* a cautionary tale and argues that we should transcend the tendency of regarding the two cultures in binary opposition, so that intellectuals could more powerfully address new challenges.

Keywords: The Two Cultures Debate, Margaret Atwood, *Oryx and Crake*, integration of science and humanities

Ever since the British scientist and novelist C. P. Snow used the notion of 'the two cultures' to describe the gap between scientists and humanities intellectuals, the term has been considered as 'a trope framing the debate between the humanities and science.'[1] The two cultures debate is an indispensable part when discussing what role universities play in cultivating young future citizens. C. P. Snow's insights and the Cambridge literature professor F. R. Leavis's follow-up critique are still capable of inspiring and provoking discussions on whether the two types of knowledge could be made to talk to each other as the topic is very pressing in the current era when our ways of life are being increasingly reshaped by science and technology. The attitudes and ways of dealing with the relations between the two cultures may have a huge impact on

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[1] Ronald Soetaert, and Kris Rutten, 'A Rhetorical Analysis of the Two Cultures in Literary Fiction', in *Perspectives on Science and Culture*, ed. Kris Rutten et al (West Lafayette: Purdue University Press, 2018), 67.

the future direction of university education.

Thoughts on the Legacy of the Two Cultures Debate

In the 1959 Rede lecture 'The Two Cultures and the Scientific Revolution', C. P. Snow describes how humanities intellectuals and scientists seldom encounter each other and develop a fruitful dialogue. He focuses on the deep split between literary intellectuals and scientists, holding the view that the gap resulted from the excessive specialization of British students in either the Humanities or the Sciences from too early an age, usually from the age of sixteen onwards. Snow also notices the menaces of nuclear war and overpopulation and that industrial nations get richer, whereas non-industrial developing countries are stagnating as they suffer from a lag in science and technology. For him industrial revolution is an indisputable step towards progress, and scientists hold the keys to such progress, capable of solving the problems existing in the world. To enhance competitive power, Snow argues that British universities should produce more scientists and engineers, claiming that '[f]or the sake of the intellectual life, for the sake of this country's special danger, for the sake of the western society living precariously rich among the poor, for the sake of the poor who needn't be poor if there is intelligence in the world, it is obligatory for us and the Americans and the whole West to look at our education with fresh eyes.'[2] He draws the conclusion that society would benefit if there was more mutual understanding between science and the humanities.

Although he positions himself as a person who crosses the borders between the two cultures, Snow clearly sides with the scientists. This stance was strongly criticized by F. R. Leavis in his 1962 Richmond lecture, in which he began the so-called 'British intellectual knife-throwing'[3] by attacking Snow's utilitarian perspectives on economic prosperity and argued that an economic logic based on technological development is not the only mission of higher education. Leavis not only demolishes Snow's identity as a novelist, saying that '[a]s a novelist he doesn't exist; he doesn't begin to exist. He can't be said to know what a novel is'[4], but he also refutes Snow as a spokesman of authority by arguing that the lived quality of the human lives cannot merely refer to the material standards of living and that a previously unified society has been replaced by machine-governed labour and empty consumerism due to the loss of 'an effective educated public capable of sustaining genuine standards of criticism.'[5] Leavis's lecture was criticized for his *ad hominem* attack against Snow or for his mere reversal of prioritising arts to the detriment of science, but his critiques and Snow's responses continued the discussion on the topic. Later on, numerous writers and critics contributed to the debate. Aldous Huxley's 1963 book *Science and Literature* tries to distinguish scientific language from literary language. He appraises Snow's ideas as 'bland scientism' and Leavis's lecture as 'violent and ill-mannered, the one-track, moralistic literarism'.[6] Although he mostly agreed with Leavis, Lionel Trilling thinks Leavis's

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[2] C. P. Snow, *The Two Cultures*, intro. Stefan Collini (Cambridge: Cambridge University Press, 1998), 50.
[3] George Watson, 'The Future in Your Bones: C. P. Snow (1905-80)', *The Hudson Review* 54.4 (2002): 599.
[4] F. R. Leavis, *Two Cultures? The Significance of C. P. Snow,* intro. Stephen Collini (Cambridge: Cambridge University Press, 2013), 13.
[5] Leavis, *Two Cultures?* 6.
[6] Quoted in Roy Porter, 'Two Cultures Revisited', *boundary 2* 23.2 (1996): 1.

lecture has 'an impermissible tone.'[7] Stefan Collini believes that Leavis uses a sardonic tone to challenge Snow's status as 'a sage or pundit who was licensed to pronounce on the great issues of the day.'[8] Frank Furedi thinks that the Two Cultures debate 'raises interesting questions about what it means to be an educated person.'[9] This topic was also one of the central concerns of William V. Spanos who quotes the Dean of the Faculty of Arts and Sciences at Harvard University Henry Rosovsky's five understandings of an educated person, among which the fourth says: '[a]n educated person is expected to have some understanding of, and experiences in thinking about, moral and ethical problems.'[10] According to Guy Ortolando, Snow considered the university 'an engine of economic and social change', whereas Leavis believed that 'the university must serve as a refuge from such progress.'[11] Snow's ground is built on his belief in progress and improvement of material life; Leavis highlights the significance of thought, words and creativity in the preservation of human culture and civilization. The above criticism invites readers to ponder on the role of intellectual culture in social development.

Given how rapidly and enormously science and technology have changed our daily lives, what is in the two cultures conception that still seems relevant today? First of all, Snow's critique of excessive specialization of the British education system and his pondering on the split between the two intellectual cultures make today's intellectuals strive for the possibility of bridging the gap between the world of science and that of letters. For Walter E. Massey, 'the division between the two cultures has been improved over time, thanks to the evolution of both disciplines, the rise of interdisciplinary scholarship, and a more collaborative mindset among scholars of both worlds.'[12] He urges intellectuals of both worlds to educate the general public and convince them of the importance of the humanities and the validity of science. Rosi Bradotti argues that over the past thirty years interdisciplinary studies such as gender studies, race studies, subaltern studies and cultural studies have formed the theoretical innovation in the humanities, and 'today the critical posthumanities are emerging as transdisciplinary discursive fronts not only around the edges of the classical disciplines but also across the established studies areas, as evidenced by environmental, digital, neural, biogenetic, and medical humanities.'[13] Humanities scholars are integrating scientific knowledge and methodology into their research. In the same way, scientists have made important breakthrough in technological innovations partly due to their imagination, originality and critical thinking. Open communication and mutual learning are key prerequisites for the two groups to address new challenges in this changing world.

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[7] Leavis, *Two Cultures?*, 1.

[8] Leavis, *Two Cultures?*, 4.

[9] Frank Furedi, 'Re-reading C. P. Snow and His Elusive Serach for Authority', in *From Two Cultures to No Culture: C. P. Snow's 'Two Cultures' Lecture Fifty Years On,* ed. Frank Furedi et al. (London: Civitas, 2009), 62.

[10] William V Spanos, 'The End of Education: "The Harvard Core Curriculum Report" and the Pedagogy of Reformation', *boundary 2* 10.2 (1982): 9.

[11] Guy Ortolano, 'Two Cultures, One University: The Institutional Origins of the "Two Cultures" Controversy', *Albion: A Quarterly Journal Concerned with British Studies* 34.4 (2002): 623.

[12] Walter E. Massey, 'C. P. Snow and the Two Cultures, 60 Years Later', *European Review* 27.1 (2018): 66.

[13] Rosi Braidotti, 'The Critical Posthumanities; or, Is Medianatures to Naturecultures as Zoe is to Bio?', *Cultural Politics* 12.3 (2016): 382.

Secondly, the 'two cultures' notion makes today's intellectuals reflect on the direction of the future of higher education. Snow's followers may insist that universities fulfil the utilitarian purpose of meeting the social needs of progress. It is true that scientific innovation can better people's lives, but if too much emphasis was put on utilitarian purposes, discourses on science would be domineering if combined with the profit-making drive, viewing the development of science and technology as superior and hence marginalizing the humanities. Let us not forget that science and technology produced great discoveries, but also the industrialization of death during World War II, when Zyklon B was invented in Germany and used to kill millions of innocent people in the concentration camps, or, when, after the discovery of the nuclear fusion by radiochemists Otto Hahn and Fritz Strassmann, that spread fast in the world of science, Robert Oppenheimer recruited scientists to build the first nuclear bomb in a secret laboratory from New Mexico. Paradoxically, he 'whispered that he couldn't tell them what they would be doing, but could tell them that their work would end the war and save lives.'[14] The atomic bomb did not save lives. It took innocent lives, with death tolls estimated to around 140,000 of Hiroshima's 350,000 population and more than 74,000 in Nagasaki. We may add one more example from our contemporary society, where there has already been a tendency to overvalue economic prosperity and profit as 'a means to an end', and hence scientific discoveries are used without ethical restraints. Biotechnology corporations, for instance, manufacture GMO food and sell it to some third world countries such as Nigeria in the name of providing food and eliminating hunger, but GMO food can have some serious harmful effects on human bodies including infertility, accelerated aging, immune problems and cancer. People in the poor countries become Guinea pigs, whereas such foods are forbidden in most developed countries. This proves that Leavis was right to urge science to be operated within the framework of moral values generated from the humanities education. Since science and technology are 'pharmacological', meaning 'both poison and remedy at the same time,'[15] the socio-political use of technologies should be analysed critically.

The mission of universities requires further critical revision in response to the changing circumstances of the society. If in Snow's time science and technology began to show their significance, then today the technological advance has gone very far with many discoveries making our life easier. However, when science is unfettered and the humanities are ignored, our activities in the Anthropocene age pose a serious threat to the environment and culture heritage. Commenting on Leavis's attack, Roger Kimball, thinks the debate addresses 'the fate of culture in a world increasingly determined by science and technology.'[16] Although science and the humanities as two modes of thinking have fundamental differences, the two cultures should not be separated from each other, nor should one culture be considered superior, and hence given priority to the other. Rather than putting the two cultures in binary opposition, we should seek a fresh approach to integrating science and humanities. The two cultures can be bridged in

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[14] See Richard Rhodes, *The Atomic Bomb and Its Consequences*, 2013; available at https://www.forbes.com/sites/jamesconca/2013/12/07/why-did-we-make-the-atomic-bomb/#94ed44b6e90 7 [accessed 20 October 2020].

[15] Bernard Stiegler, *Pharmacologie du Front National, suivi du Vocabulaire d'Ars Industrialis* quoted in translation by Stefan Herbrechter, 'Posthumanist Education?', in *International Handbook of Philosophy of Education*, vol. 1, ed. Paul Smeyers (Cham: Springer International Handbooks of Education, 2018), 738.

[16] Roger Kimball, 'The Two Cultures Today,' in *From Two Cultures to No Culture: C. P. Snow's 'Two Cultures' Lecture Fifty Years On,* ed. Frank Furedi et al. (London: Civitas, 2009), 34.

complementary fashion. Scientists take pains to improve the material conditions of life, the humanities intellectuals can help 'combat the numbness and inattention caused by accelerated technological change.'[17] As long as human nature remains as it is, the humanities will provide a window into the soul of humanity and a path to self-knowledge, so we should not ignore the importance of the humanities altogether in the technology age of artificial intelligence. Intellectuals from both science and humanities should build up a shared space in which they could learn from each other. They should become communicators and synthesizers who try their best to make science humanized and humanities being made relevant to the scientific age. Quoting the American scientist E.O Wilson's *Consilience* which is a manifestation of his sophisticated interdisciplinary work of sociology and biology, D. Graham Burnett explains how 'with luck and hard work the sciences, social sciences and even the humanities and arts should begin jump together and gradually become integrated in content and method.'[18] Now it is high time to integrate the two cultures and move towards what Rosi Bradotti called 'critical posthumanities'.

C. P. Snow argued that the application of science and technology provides the best hope for meeting the world's fundamental needs, but that this goal was thwarted by the lack of understanding between the two cultures. In this context, I would like to pose the question: what if the importance of science and technology is overemphasized to extremity, belittling the humanities and pushing them to a state of aphasia? I will endeavour giving an answer to this question, by analysing in detail Canadian writer Margaret Atwood's speculative fiction *Oyrx and Crake* (2003), the first work of her MaddAddam Trilogy. *Oyrx and Crake* is a meditation on the risks caused by scientific hubris and an inquiry into the techno-capitalism's total neglect of the function of arts and the humanities. Atwood reflects on the ongoing debate between the two cultures and creates a dystopian world which forces the reader to consider the possible bleak consequences resulting from overpowering humanities and giving priority to sciences. Not incidentally, she places her characters into an academic environment, where some are trained in science and some in humanities.

The Alliance of Techno-Supremacy and Profit-driven Corporate Capitalism: Structure of Feeling in *Oryx and Crake's Fictional World*

In a minute analysis of 'campus' or 'academic novels', an eccentric genre which did not really represent a focus of criticism with the notable exceptions of Mary McCarthy's *Groves of Academe* (1952), Kingsley Amis's *Lucky Jim* (1954), and David Lodge's *Small World* (1984), Jeffrey J. Williams argues that the former, which is often 'grafted with the bildungsroman and became a prime theatre of coming of age,' centres on students' campus life, whereas the latter revolves around those who work as academics and 'has grafted with the mid-life crisis novel, the marriage novel, and the professional-work novel to become a prime theatre of middle-class experience.'[19] Using Williams' framework, Margaret Atwood's *Oryx and Crake* can be termed as a campus novel as the story partly deals with the life of two young men who are students, but it certainly goes beyond this narrow scope, as it tackles some larger theoretical

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[17] Snow, *The Two Cultures*, 38.

[18] D. Graham Burnett, 'A View from the Bridge: The Two Cultures Debate, Its Legacy, and the History of Science', *Daedalus* 128.2 (1999): 213.

[19] Jeffrey J. Williams, 'The Rise of Academic Novel', *American Literary History* 24.3 (2012): 562.

concerns which are usually the matter of what Williams termed as ' new academic novel'. Williams notes in the recent years some 'permutations' that led to this type of novel which 'takes otherwise specialized debates about literary theory and the literary canon to be of direct social importance, and personifies wars of ideas, the plots typically turning on struggles over gender, race, and sex.'[20] Focusing on 'the consequences of new and proposed technologies in graphic ways by showing them as fully operational',[21] Atwood's *Oryx and Crake* examines complex issues of posthuman imagination, techno-ethics, social inequality, gender and violence, language and power through a post-apocalyptic narrative.

Critics have interpreted the above thematic topics from multiple perspectives: from feminism,[22] to psychoanalysis,[23] trauma theory,[24] eco-criticism[25] and techno-criticism.[26] However, the two cultures topic as reflected in the novel has never been thoroughly explored, and this is the angle on which my article will focus.

Oryx and Crake tells the story of two friends Jimmy and Glenn/Crake[27] in North America's near future. Jimmy is first introduced to the reader as Snowman, who lives to tell how the human species is almost wiped out due to the global pandemic designed by Crake, a mad technocrat who believes that human beings are biologically as well as morally weak. Crake not only unleashes a powerful virus that destroys most of the world's population, but also creates the Crakers, a group of genetically improved transhumans[28] who are supposed to be substitutes for the human species. From the retrospective point of view of the last man Snowman, the reader comes to know what he and Crake did as young boys and university students, their relationship with Oryx, a young woman who was the object of a male gaze on a kiddie porn show and later a

[20] Williams, 569.

[21] Margaret Atwood, *In Other Worlds: SF and the Human Imagination* (New York: Nan A. Talese/ Doubleday, 2011), 62.

[22] See, among others, Rona May-Ron, 'Returning the Gaze: "Cinderella" as Intertext in Margaret Atwood's *Oryx and Crake*', *Marvels & Tales* 33.2 (2019): 259-82; Călina Ciobanu, 'Rewriting the Human at the End of the Anthropocene in Margaret Atwood's *MaddAddam* Trilogy', *Minnesota Review* 83, New Series (2014): 153-62; Sharon R. Wilson, 'Frankenstein's Gaze and Atwood's Sexual Politics in *Oryx and Crake*', in *Margaret Atwood: The Open Eye*, eds. John Moss, and Tobi Kozakewich (Ottawa: University of Ottawa Press, 2006), 397-406.

[23] See John Johnson, 'Lacan's Drive and Genetic Posthumans: The Example of Margaret Atwood's *Oryx and Crake*, in *Lacan and the Posthuman*, eds. Svitlana Matviyenko, and Judith Roof (Cham: Palgrave Macmillan, 2018), 129-52.

[24] See, for instance, Katherine V. Snyder, '"Time to Go": The Post-Apocalyptic and The Post-Traumatic in Margaret Atwood's *Oryx and Crake*', *Studies in the Novel* 43.4 (2011): 470-89.

[25] Cf. Hannes Bergthaller, 'Housebreaking the Human Animal: Humanism and the Problem of Sustainability in Margaret Atwood's *Oryx and Crake* and *The Year of the Flood*', *English Studies.* 91.7 (2010): 728-743; Nazry Bahrawi, 'Hope of a hopeless world: eco-teleology in Margaret Atwood's Oryx and Crake and The Year of the Flood', *Green Letters: Studies in Ecocriticism* 17.3 (2013): 251-63.

[26] Cf. Jay Sanderson, 'Pigoons, Rakunks and Crakers: Margaret Atwood's *Oryx and Crake* and Genetically Engineered Animals in a (Latourian) Hybrid World', *Law and Humanities* 7.2 (2013): 218-40.

[27] Crake, a codename Glenn uses in a Massive Multiplayer Online Role-Playing Game called Extinctathon, is used in most part of the novel.

[28] For a definition of transhumans, see Nick Bostrom, 'A History of Transhumanist Thought', *Journal of Evolution and Technology* 14.1 (April 2005): 1-25. The novel deals with both transhumanism and posthumanism. Transhumans are the enhanced versions of the human species, therefore transhumanism is still anthropocentric, whereas posthumanism blurs the distinct boundaries between humans and nonhumans, decentering the status of human beings and 'envisioning the end of a certain conception of the human.' See N. Catherine Hayles, *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature and Informatics* (Chicago: The University of Chicago Press, 1999), 286.

lover of both Crake and Jimmy, and how Crake developed into an unfeeling, disaffected person. One of the central questions revealed in this novel is 'What makes Crake an unempathetic and misanthropic person?' The essay argues that it is the structure of feeling of the society in which Crake and Jimmy live that determines Crake's affective responses to the storyworld's suffering. In other words, it is not bioengineering that causes human being's self-destruction, but the continuation of a culture that encourages Crake to try to destroy humankind. In what follows, the affective system of the fictional society will be analysed to indicate how it operates to facilitate and shape individual's affective responses.

The socio-political landscape in Atwood's fictional world is divided into two distinct hierarchical spaces: the Compounds and the Pleeblands. The Compounds are highly organized and make up an environmentally protected space, inhabited mainly by techno elites who work for corporations such as OrganInc Farms, HelthWyzer and ReJoovenescene. The Pleeblands, in which most of the population resides, are an environmentally degraded space, filled with life threatening dangers such as injury and infection, starvation and violence. Scientists who develop profitable technologies are qualified to live in the Compounds with first-class amenities. These technocrats enjoy health, wealth, luxury and security, whereas the Pleeblanders, are expendable people, who suffer from all kinds of social problems and are on the verge of self-destruction. The unequal economic structure is perpetuated by these elite people's blindness to the sufferings of the Pleeblanders, living happily in their walled space. The societal milieu in the novel echoes Sara Ahmed's 'happiness dystopia', a term used to describe how British society 'elevates citizens' happiness about their culture's achievements at the same time as it encourages wilful blindness to the suffering of the marginalized.'[29]

In this class-segregated social space, biotechnology and free-market capitalism are allied and embedded into each other. Driven by the belief of corporate capitalism that values high efficiency and high profits, the Compounds put all kinds of technological innovations into production, with no regard for ethics. For instance, Jimmy's father, an expert of genography, who can grow human neocortex tissue in pigs to create 'pigoons', tampers with nature to correct life's imperfections. This is exactly transhumanism's goal, which according to Siân Bayne, is 'essentially an extension of the humanist agenda – it is about the inevitability of scientific progression, about the capacity of human beings to reengineer themselves, about seeing the human as something that has the capacity to become better and better through scientific progress and technology development.'[30] The products of AnooYou that promise Newskins to replace old, are produced to meet the needs of both the Pleeblanders and the Compound dwellers to look young. ChickiNobs, the genetically altered chicken that have no brain but only breasts are produced to meet the rapid supply, as bioengineers follow the idea of 'no brain, no pain' to shun the accuses of animal rights activists. As Jay Sanderson argues, 'In *Oryx and Crake* the corporations are largely left unchecked and are able to develop a wide variety of transgenic products and services, and as a consequence the corporations run all facets of life.'[31] Everything is viewed solely in terms of profit margin. What is worse,

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[29] Ariel Kroon, 'Reasonably Insane: Affect and Crake in Margaret Atwood's *Oryx and Crake*', *Canadian Literature* 226 (Autumn 2015): 20.

[30] Petar Jandrić, 'From Anthropocentric Humanism to Critical Posthumanism in Digital Education: Conversation with Siân Bayne', *Learning in the Age of Digital Reason* (Rotterdam, Boston and Taipei: Sense Publishers, 2017), 197.

[31] Jay Sanderson, 'Pigoons, Rakunks and Crakers: Margaret Atwood's *Oryx and Crake* and Genetically

corporate capitalism's short-term profit-seeking not only instrumentalizes life through the production of new transgenics, technocapitalism also endangers the human race via biopolitical control. Bioentrepreneurs produce BlyssPluss, a pill designed to increase sexual pleasure while the real purpose of the pill is to enact a forced sterilization campaign on those who are considered unfit for the development of corporate capitalism. Bioengineers try to fix biological defects in human life and create new forms of life to meet the needs of human greed to 'stop time.'[32]

When science and technology have been instrumentalized to meet the corporations' needs of unscrupulous profit-seeking, the corporate power in the Compounds think about the purpose of human life in a narrow and nefarious way. It hires CorpSeCorps, a privatized security company to protect the corporate structure like mafia, killing Crake's father and Jimmy's mother when they became sceptical about corporate practice of bringing disease to people to make profits from the cure and tried to act outside of its mandates. Consequently, Crake, who grows up in such cultural condition, is encouraged to think of change in terms of destroying anything he hates and making anew. It is such free use of technology without ethical constraints that finally leads to Crake's decision to destroy humankind.

The lack of humanities education also contributes to the apocalypse. When science and technology has been allied with capital, the principle of utility and profits reigns in the Compounds; consequently, anything that is disinterested and useless is despised. Jimmy and Crake grow up in such corporate culture which clearly favours 'numbers' people instead of 'words' people. In the Compounds, science and technology have been given full sway, while language has been disintegrated and arts and humanities have been degraded. This can be clearly seen from the stark contrast between Watson-Crick and Martha Graham, the two institutions that Crake and Jimmy enter respectively as university students. The Compounds highly values institutions like Watson-Crick that are well-funded and highly competitive. Only exceptionally gifted science and technology innovators such as Crake can be enrolled in. Nicknamed 'Asperger's U'[33], Watson-Crick has awesome campus facilities, attracting high percentage of brilliant science geniuses who may be weird and unsociable, but can create dazzling innovations such as genetically engineered butterflies, and imitation rocks made from recyclables that absorb water and release it according to the humidity of the air. In contrast, the universities that are famous for arts and humanities, such as Martha Graham, in which Jimmy enrolled, are severely underfunded and on the verge of falling apart.

Crake's and Jimmy's university education epitomize how the Compounds deal with the clash between the Sciences and Humanities at the core of C. P. Snow's two cultures debate. Jimmy remembers, 'The system had filed him among the rejects, and what he was studying was considered – at the decision-making levels, the levels of real power – an archaic waste of time' (*OC*, 195). Everything must be useful, or it will be thrown away. Martha Graham's motto that had once been '*Ars Longa Vita Brevis*' (art is long, life is short) has changed into the principle 'Our Students Graduate with

Engineered Animals in a (Latourian) Hybrid World', *Law and Humanities* 7.2 (2013): 220.
[32] Margaret Atwood, *Oryx and Crake* (New York: Anchor Books, 2004), 292. Hereafter cited as *OC*, with page numbers in the text.
[33] Asperger's Syndrome is a form of autism and it consists in not having / showing emotions and empathy. Watson-Crick is nicknamed as 'Asperger's U' to highlight students' sole interest in science, showing no concern for others.

Employable Skills' (*OC*, 188). Courses that truly elevate students' thoughts are considered unnecessary, so all the curriculum courses are set up on utilitarian purposes. One can get a degree in Pictorial and Plastic Art by learning such courses as Image Presentation and Webgame Dynamics, a fact which indicates that the richness of art has been replaced by surface images. Slower, word-based thinking gets edged out of the way when efficiency and utilitarianism are extremely valued. As Jimmy comments satirically, '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, though every once in a while the college president would subject them to some yawner about the vital art and their irresistible reversed seat in the big red-velvet amphitheatre of the beating human heart.' (*OC*,187) In submitting to the total reign of science and technology, the Compounds degrade arts and humanities altogether.

Atwood reflects on the dismantling of the humanities by imagining a society in which the business practices of corporate capitalism and their tools of efficiency define knowledge. While at Martha Graham, Jimmy often goes into libraries to look at physical books before they are digitized and destroyed, and he remembers that complicated words are forsaken in the name of linguistic streamlining. The loss of language or the tendency to allow language become impoverished results in the loss of concepts, memory and history, limiting people's thought.

If the Compounds view the world as being under the dominion of science, then science and technology will overpower and suffocate the affective forces of empathy and love, just as Amanda Payne's art indicates. Amanda Payne, one of Jimmy's girlfriends, uses animal carcasses to spell out a single word on the grass and then let vultures eat away the single four-letter words such as 'pain', 'whom', 'guts' and 'love'. The vulturization [34] of words vividly illustrates how corporate culture eats away language, arts and humanities that foster people's empathetic abilities. Atwood denounces our excessive love of science while totally degrading humanities. She endeavours to demonstrate what is sacrificed thereby when language, arts and humanities are devalued.

Atwood also criticizes the empathy-degrading potential of the internet. Jimmy and Crake as teenagers whiled away their after-school hours on the internet. Such loitering away their time on the internet has a proleptic function of shaping their modes of thinking. When they surf, Jimmy and Crake are merely driven by immediate response to images and sound bites. They consume the images, get instant gratification and quickly move on to other sites. The sites they visit are mostly replete with violence and pornography. They can surf those sites without any obstacles, which indicates that violence and pornography are socially acceptable in the Compounds public space. They watch sexual and violent acts on Noodie News, headoff.com, or brainfrizz and they first wonder whether any of those digital entertainments are real or not. These images gradually lose their ability to shock. For instance, when Jimmy and Crake surf the live execution shows on the internet, they are tantalized first to believe what they are seeing is a real execution, but they then retreat to a self-comfort by believing it is all made up, enabling them to be disaffected from the suffering. The real and the virtual has been mixed up and Crake himself believes that 'these bloodfests were probably taking place on a back lot somewhere in California, with a bunch of extras rounded up off the streets'

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[34] The term was used by Christina Bieber Lake in *Prophets of the Posthuman: American Fiction, Biotechnology, and the Ethics of Personhood* (Notre Dame, IN: University of Notre Dame Press, 2013), 116.

(*OC*, 82). Even if Crake believes that what he saw really happens somewhere in reality; the internet teaches him to deal with it indifferently and unempathetically. It shapes the way he sees people as commodified and interchangeable part, rather than seeing them as full and dignified.

Jimmy and Crake also play computer games quite a lot. Crake is the grandmaster of such games as Extinctathon, a game that rewards players who know and can keep track of the daily extinction of species, and Blood and Roses, a game in which players can take pleasure in the annihilation of other human beings. Internet surfing and the games construct their ethical selves, making the distinction between the real and the virtual impossible to discern. Just as Brian Boyd argues that '[a]rt develops the imagination, in ways that can lead to an expansion in sympathy and a decline in social harm,[35] Margaret Atwood clearly conveys the message that true empathy can only be possible in a society that protects arts and humanities. The novel reflects on the two cultures debate and earnestly calls on to empower art and humanities so that they push us beyond the values of production, consumption, efficiency and control.

Crake's Misanthropy: Affective Responses out of Compounds' Structure of Feeling

It is arts and humanities that cultivate our capacity for ethical responsibility, empathy and love. With no emphasis on the relevance of arts and humanities, the Compounds can only produce mad, narcissistic scientists as Crake. Groomed for personal success by becoming the Grandmaster of Extinctathon, and as a genius enrolled by the most well-funded university, Crake develops a superior sense of self. He believes that as he can master the games he plays, he can also master life. As a task-driven specialist, Crake views all human suffering as a problem that can and should be solved by science and technology alone. For him, human beings are both biologically and morally flawed: the human being's unsatisfied libido leads to the social effects of jealousy, hatred, violence and war. Well aware of the wickedness of corporate capitalism, Crake believes that the idea of motivating others to act morally in this structure of feeling is a false hope and deliberately avoids it. After he informs Jimmy of the wicked wrongdoing of HelthWyzer, a major medical corporation, which intentionally plants viruses in their vitamin supplements to keep business running, Crake himself admires this 'elegant concept' (*OC*, 212) and follows suit by planting viruses in the BlyssPlus to destroy the human race. He wants to destroy a morally bankrupt human race via a viral pandemic and replace mankind with his morally upgraded humanoids. As Ariel Kroon argues, 'In Crake, Atwood creates a character whose reasoning against empathy is in perfect harmony with the moral tenets of his profit-driven society.'[36] Crake, a narcissistic technocrat with no regard for others and no capacity for love, is a typical product of the culture of narcissism in which individual talents believe themselves to be somewhat like gods who can create and destroy life.

As a typical utilitarian scientist, Crake has no empathetic feelings towards other people's sufferings. Jimmy and Crake have different affective responses towards Oryx's suffering. Jimmy and Crake first saw Oryx on HottTotts, a global 'sex-trotting' site

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[35] Brian Boyd, 'Arts, Humanities, Sciences, Uses', *New Literary History* 44.4 (2013): 580.
[36] Ariel Kroon, 'Reasonably Insane: Affect and Crake in Margaret Atwood's *Oryx and Crake*', *Canadian Literature* 226 (Autumn 2015): 19.

where children were cheaply purchased and filmed to perform obscenities for disguised male adults. Jimmy felt guilty when Oryx looked right into the eyes of the viewer whereas Crake felt no sense of guilt as the male voyeur. Whilst Oryx's face evokes Jimmy's sense of ethical responsibility towards the exploited other, to Crake it means nothing. Crake just takes a snapshot of Oryx's image and files it away indifferently. Later on, he uses the face of Oryx as his computer wallpaper, a portal to enter his game of Extinctathon. Crake is so morally deadened that no forces could compel him to take any responsibility for others. Throughout the story, Crake expresses only negative emotions such as cynicism, apathy, pessimism, or anger.[37] If he has any sense of love, his love is possessive: 'And Crake loved Oryx, no doubt there; he was most abject about it […] Crake had never been a toucher […] but now he liked to have a hand on Oryx: on her shoulder, her arm, her small waist, her perfect butt. *Mine, mine*, that hand was saying.' (*OC*, 313) In order to fulfil his plan, he makes uses of his lover Oryx to sell the BlyssPlus pill that contains the fatal virus. This is a proof that Crake's love for Oryx is not a kind of true love.

As can be seen, when empathy erodes, violence and catastrophe become rampant. Crake's ultimate aim is to eliminate all humans, including himself and Oryx, and to leave Jimmy to take care of the Crakers. While the human race is rapidly being extinguished, Crake arrives at the insulated Paradice dome where Jimmy is waiting for him. Holding a lifeless Oryx in his arms, and well aware of Jimmy's feelings for her, Crake cuts her throat, anticipating that Jimmy will shoot him in response. Jimmy does that, thus finalizing Crake's mad plan. Crake's action is a result of his careful reasoning. His views and affective responses are chillingly logical in a technocratic society that creates and rewards god-like mad scientists.

Crake's utopia is a disanthropic vision of a world without humans, but such a vision can only lead to a dystopian future. Atwood uses the term 'ustopia' to illustrate her speculative world-making:

> *Ustopia* is a word I made up by combining utopia and dystopia – the imagined perfect society and its opposite – because, in my view, each contains a latent version of the other… In addition to being, almost always, a mapped location, ustopia is also a state of mind, as is every place in literature of whatever kind […] In literature, every landscape is a state of mind, but every state of mind can also be portrayed by a landscape. And so it is with ustopia.[38]

Crake creates the Crakers in the Paradice dome, a highly controlled environment in which these new Adams and Eves were kept in an enforced state of innocence. In this man-made Eden, the only human contact is Oryx, Crake's lover and Jimmy's lover as well. She is charged with the Crakers daily and teaches them what not to eat and what to bite. However, the world does not develop according to Crake's design. Fully internalizing the cultural values of the Compounds, Crake tries to eliminate the art impulse from the Crakers as for him art is only 'an empty drainpipe. An amplifier. A stab at getting laid.' (*OC*, 168) But as the story shows, the Crakers' interpersonal needs

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[37] Sianne Ngai's *Ugly Feelings* analyzes some negative emotions such as envy, irritation, anxiety, and paranoia. She approaches these emotions as 'knotted or condensed "interpretations of predicaments"' that render a certain dilemma charged with political meaning. See Sianne Ngai, *Ugly Feelings* (Cambridge, MA and London: Harvard University Press, 2005), 3.

[38] Cf. J. Paul Narkunas, *Reified Life: Speculative Capital and the Ahuman Condition* (New York: Fordham University Press, 2018), 200.

grow in the post-apocalyptic world. After her death, Oryx becomes a mythical figure worshipped by the Crakers. The Crakers develop pro-religious feeling via admiration and worship for Crake and Oryx. Stories are told, myth is created and art is reborn. Crake fails to eliminate the spiritual behaviour of the Crakers, who begin to show empathetic capabilities.

In contrast to Crake's sardonic misanthropy, Jimmy is depicted as paralyzed with self-pity and resentment. He too does not feel empathetic towards the suffering other: 'The worst of it was that those people out there – the fear, the suffering, the wholesale death – did not really touch him. Crake used to say that *Homo sapiens sapiens* was not hard-wired to individuate other people in numbers above two hundred, the size of the primal tribe, and Jimmy would reduce that number to two.' (*OC*, 343)

The desire to be efficient makes people use language as a tool in the service of achieving profits. Though inclined more naturally toward language, Jimmy as a 'word person' has been shaped by the culture that devalues language, arts and humanities. Working in the advertisement department at AnooYou, Jimmy is told to describe and extol what people could become by using the company's products. Jimmy follows the request and makes up words as slogans in advertising. He manipulates language to gain money and power and is therefore chosen by Crake to work for him in the Paradice project.

Crake's sardonic misanthropy and Jimmy's inaction are normative responses to the suffering within their society. As Christina Bieber Lake argues, 'But the tough vision of *Oryx and Crake* is that technocratic values produce educational environment in which a sensitive child like Jimmy is the exception, not the rule. Crake, the boy who would grow up to destroy nearly all of humanity, is most likely product of his environment.' [39]

Conclusion: Beyond the Split of Two Cultures

More than sixty years ago C. P. Snow warned his audience that the wall built between the two cultures could become an obstacle for dealing with society's major problems. Although universities have been actively engaged in bridging the gap between the two cultures by establishing interdisciplinary programmes to bring scientists and humanists together in collaborative research and teaching efforts, the humanities are still seen by many to be impractical and, therefore, irrelevant for the development of society. Margaret Atwood's speculative fiction *Oryx and Crake* puts this tendency to extremes, by exploring the consequences of techno-capitalism without restraint in imaginative ways, showing us the danger of ignoring the Humanities.

The novel clearly shows that the elevation of individual genius over social cooperation, numbers over words has severe consequence. Crake's enjoyment of violent computer games and child pornography, his enthusiasm for genetic modification regardless of consequence, and his insistence on solving the human problems via science alone are the actions resulted from the Compound's structure of feeling, thus triggering his misanthropy. The novel is a counter-example that makes us aware of the needs of society at large to invest in the human capital produced by universities, cultivating individuals who are not only technologically-savvy but also commiserative, capable of caring for the other in an ethical way. With the burgeoning of posthumanism,

[39] Christina Bieber Lake, *Prophets of the Posthuman: American Fiction, Biotechnology, and the Ethics of Personhood* (Notre Dame: University of Notre Dame Press, 2013), 124.

the humanities, which centres on the study of human culture, has evolved into posthumanities, which requires a reassessment of the traditional definition of human being, nature, and animal. This goal could be reached by integrating the two cultures, making them compatible and cohesive. Only by making the two communities learn from each other can they work together to address new challenges in the current world.

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Dezbaterea celor două culturi revăzută în epoca postumanistă: Romanul *Oryx and Crake* al lui Margaret Atwood ca studiu de caz

Rezumat

Articolul analizează *Oryx and Crake*, primul roman din Trilogia *MaddAddam* al scriitoarei canadience Margaret Atwood drept contraexemplu al dezvoltării sănătoase a educației academice viitoare și susține că educația universitară pe viitor ar trebui să integreze științele exacte și științele umaniste pentru a forma atât oameni de știință bine-pregătiți, cât și cetățeni empatici. Pornind de la dezbaterea dintre cele „două culturi" pe care omul de știință și romancierul britanic C. P. Snow a lansat-o în 1959, articolul investighează întreruperea comunicării dintre cei care reprezintă științele exacte și intelectualii umaniști ca obstacol major în rezolvarea problemelor lumii. Consecințele grave ale scindării dintre științele exacte și științele umaniste, cu primele dominându-le pe cele din urmă, apar reprezentate strălucit în romanul lui Margaret Atwood, *Oryx and Crake*. Întrucât dezbaterea celor două culturi ridică probleme fundamentale despre direcția înspre care se îndreaptă educația în universități, iar romanul lui Atwood scoate în evidență repercusiunile asupra destinului ființelor umane și postumane, articolul se ocupă de motivul celor două culturi și propune o analiză a noțiunii de afect din *Oryx and Crake* pentru a revela cum tehno-capitalismul orientat către profit eșuează în a forma cetățeni empatici. Prima parte reprezintă o reflecție asupra relevanței controversei celor două culturi până în zilele noastre. Cea de-a doua parte analizează credința de bază a lumii ficționale care facilitează dezvoltarea caracterului indivizilor, iar partea a treia se axează pe

răspunsurile afective ale lui Crake care rezultă dintr-un astfel de ambient cultural. Concluzia articolului este că *Oryx and Crake* este o poveste care avertizează asupra unui pericol și argumentează că ar trebui să transcedem tendința de a privi cele două culturi ca opoziție binară, astfel încât intelectualii să poată să înfrunte noile provocări cu mai multă forță.