

## TEACHING ETHICS WITH SCIENCE FICTION: A CASE STUDY SYLLABUS<sup>1</sup>

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Science Fiction provides an excellent variety of interdisciplinary Ethics case studies to choose from. This literary category offers many opportunities to exercise the moral imagination, through attempts to anticipate future technological developments and to explore both the benefits and the dangers of these developments. The genre is also a fertile ground for exploring human relationships, treatment of the Self and the Other, as well as environmental issues, just to name a few examples.

On the applied-pedagogy side, several aspects of Science Fiction's reputation help me do my job of teaching literature, grammar, and ethics better than I would be able to otherwise. Let me explain. Many of my students regard the genre as less threatening and more engaging than "serious literature." Whether this view is correct, whether it should be fostered or challenged by the academy, whether Sci Fi can be "serious literature," and whether the genre attracts a specific student demographic (science majors, students intimidated by academic writing, etc) are subjects for other articles. The fact is, however, that the "fun" status of Science Fiction works to the professor's advantage by removing the intellectual and emotional resistances some students might feel towards "Literature" and "Ethics," especially if presented in a writing intensive, grammar-heavy English course. In my experience, students respond well to the readings and are often surprised at the depth and breadth of the issues this "fun" genre can raise. Having my students start out feeling confident, engaged and initiated breaks down psychological barriers and allows me to design a truly collaborative learning experience. It is also easier to be creative and to try new approaches in a class that is enthusiastic about the learning process itself.

While Sci Fi stories are on the reading lists for most of the courses I teach, the exclusively Sci Fi course I teach at my small undergraduate Liberal Arts college is a 200-level English course, open to all majors. Last

year, in the Winter term, the class was comprised of 4 freshmen, 6 sophomores, 7 juniors, and 5 seniors. English majors were a minority, while social sciences, hard sciences, and engineering were well represented. For the upcoming Winter '09 trimester, twenty five students, mostly juniors and seniors, have signed up. Nine are English majors, with Liberal Arts, Biology, Neuroscience, Biochemistry, Political Science, and Managerial Economics majors alongside.

Because mine is an English course, the majority of the activities and discussions focuses on literary texts. Designing the course and making ethics fit in organically is a matter of carefully selecting the readings and other materials. Here I must briefly mention that the college where I teach has a “practical skills” based Ethics across the Curriculum approach. We de-emphasize (though by no means discourage) theoretical ethics and focus instead on case studies.

Therefore, my Sci Fi course materials are all selected to be ethics case studies; the syllabus includes stories and essays by Ray Bradbury, Ursula K. Le Guin, Stanislaw Lem, Ted Chiang, and Roger Zelazny. The class also incorporates films (*Gattaca*, *Contact*, *A Scanner Darkly*), TV series episodes (*Penn & Teller: Bullshit!*, *Star Trek*, *Babylon 5*), and online talks by scientists from TED.com. Specific topics include the following:

## BIOETHICS AND GENETIC ENGINEERING

*Gattaca* is a 1997 film about the near future, where all society members are genetically altered before conception to be “the best version” of their parents’ genes. A young man conceived naturally struggles to cheat his way through the system to make his dream of space travel come true. The movie clearly sides with the underdog protagonist, while at the same time raising some important questions about achievement, good parenting, hiding or altering one’s identity to achieve one’s dreams, and cheating an unfair system. In another class, where I also show this film, I have assigned an essay that required the students to take the society’s (not the protagonist’s) point of view. This exercise made the students think hard about the reasons why the society in the film discriminates against genetically unaltered individuals; even more importantly, the students had to think about the balance between the means and the ends, and the ethics of cheating. Under what circumstances is it acceptable to falsify one’s identity and lie to achieve a dream? The film and the essays generated lively discussions in the class.

## THE BIONIC SELF

Zelazny's "HalfJack" is a story of a space pilot, half of whose body had been amputated and replaced with robotic/electronic parts. During the course of the story, the reader finds out that far from having been a victim of a tragic accident that deprived him of half his body, HalfJack had paid a substantial sum for this surgical alteration in order to compete with the best interstellar pilots of his time. A modern day parallel is the question of what we are prepared to do to enhance our professional chances. Do we take drugs to increase performance? Undergo plastic surgery? Invest in Botox injections? These and many other, related questions come up organically and facilitate classroom discussions about the future and the present of self-enhancement.

## A.I. AND ARTIFICIAL MORAL AGENTS

Bradbury's "Long Years" and Lem's "Seventh Sally" are two stories about the status of artificial life forms. If they are so "human" that one cannot distinguish them from *Homo sapiens*, would these life forms have "human" rights? Would we treat them as comparable to ourselves? Better than ourselves? A threat to ourselves? All of the above? A modern day parallel is the way we treat people who are radically different from ourselves—smarter, alternatively gifted, disabled, etc. Lem's story is also a philosophical parable about intelligent life under a dictatorship—another possible topic of classroom discussions.

## THE OTHER

Le Guin's "Space Crone" is an essay about choosing the best person to represent humanity to extraterrestrials. Her argument is that, far from a physically perfect, young and unattached male astronaut, the best person would be an older woman who has experienced childbirth, dedicated her time and efforts to raising a new generation, and sacrificed her own needs for those of others. This is the most political and morally unambiguous text on the syllabus; still, I do recommend it, even if, as an instructor, I struggle not to belabor the points Le Guin makes.

A very unusual story for a Science Fiction class, Bradbury's "The Cold Wind and the Warm" takes place in Dublin, Ireland, where a group of "Martians" checks in to a downtown hotel. During the course of the story, the reader realizes that the "Martians" are terrestrial homosexuals,

whose very presence scandalizes the local community. Strangely and poetically, the story sees the locals and the “aliens” make the journey towards understanding and reconciliation. This text proved both timely and poignant at the school where I teach: there had been some homophobic remarks made in a student video posted on YouTube. To avoid being preachy and heavy-handed, I worked on adopting the Socratic method when presenting the story to my class.

Ted Chiang’s “Story of Your Life,” on the other hand, involves “real” Sci Fi aliens—those from outer space. The main character of the story is a human linguistics professor called to study an alien language. During her time at this assignment, she learns the alien’s way of looking at the universe, a way radically different from what humans do. This excellent story presents many opportunities for discussion. The role of science and its impact on human societies is just one example. Another is the political nature of any contact with a more technologically advanced civilization. Yet another is the possible limits of science and human knowledge.

#### RESEARCH ETHICS AND ACADEMIC INTEGRITY

The film *Contact* is based on the novel by the famed scientist Carl Sagan. The movie follows the career of a young female scientist, who pursues her dream of discovering a signal from outer space. Despite her lofty goals, the problems she faces are very down-to-earth: finding research funding, booking time at the main observatories, as well as being cheated by a prominent colleague who attempts to take credit for her work. As many students in my class are science majors, this film provides a context for talking about integrity. I ask the students to consider their individual fields: when and how do they give credit where credit is due? How do they protect their own work from unscrupulous others? How do they view collaboration? How do they know when collaboration is expected and/or acceptable? What is the role of authority in science?

#### MULTICULTURALISM AND RELIGIOUS LIBERTY

Many of my students are surprised to see these topics on the syllabus of a Sci Fi English class; nevertheless, I consider these subjects to be the highlights of the course. The ethics of belief and disbelief is one of the major battles in the culture wars. The students’ opinions matter, not only in the class, but, most importantly, in the real world, where they

make voting, hiring, parenting, purchasing, and public policy decisions. So I bring up controversial topics, such as Scientology (a religion based on the work of a Science Fiction writer, L. Ron Hubbard), the “Alien Abductions” subculture (how is it affected by Science Fiction films and books?), as well as the questions that arise when science and belief clash. For example, the TV series *Babylon 5* episode titled “Believers” deals with the interplanetary space station, which has a strict mandate of respect for religious liberty. The station’s doctor encounters a new alien species, humanoids whose young son is dying and who come seeking medical help. In the course of the episode, the viewers find out that the doctors can easily save the child’s life with a simple surgery; however, the parents’ religion forbids any such procedure. They would rather see their son die and keep his soul, than live and lose it. What are the doctors to do? What are the parents’ rights? What are the society’s responsibilities? These are some of the questions that arise.

The list above is just a sample of the many Sci Fi ethics case study possibilities. Some texts and films would obviously fit more than one topic; I view that as a plus—more opportunities to reiterate, to see another angle on a topic, and to connect the various parts of the syllabus.

### INTERDISCIPLINARY COLLABORATIONS AND GUEST SPEAKERS

Designing the syllabus has also led to a few creative inter-disciplinary collaborations, which my college tries hard to encourage. Guest speakers in my class included an Arts professor who spoke about the work of the Japanese Ukiyo-e master Katsushika Hokusai (in connection with Zelazny’s story “24 Views of Mt. Fuji, by Hokusai”). Another speaker was a Physics professor and Sci Fi aficionado whom I asked to pick a short story he really liked; I then assigned the story to my students, and the Physicist guest-lectured on it. Yet another talk was on artificial moral agents and A.I. The speaker was a distinguished author who was invited to campus for a day of meetings and talks. Finally, an English Department colleague who is a Star Trek fan recommended an episode to show to the class; we watched it together, and my colleague came the next class meeting to lead a discussion.

Later on, during the summer recess, another colleague, this time from Computer Science, approached me about some recommendations. She wanted to incorporate ethics into her introductory Computer Science course by using Sci Fi stories as springboards for discussion. She had a list of specific topics she wished to cover. At this point, the differ-

ence between “hard” Sci Fi and the “soft” kind came to the fore. Because of the nature of my work—literary studies—I was able to provide only a few resources; I then contacted my Physics colleague and asked for his recommendations. He used his popular blog to ask for his readers’ feedback. So students and three faculty members from far-flung academic corners have come up with a list of texts for the Computer Science course. I eagerly await the professor’s reports on how the experiment goes.

### IN CONCLUSION

From “Faust” and “Frankenstein” to Philip K. Dick, from “Metropolis” to “Battlestar Galactica,” Science Fiction at its best is a very fertile ground for ethics discussions. Many students are eager to read and discuss Sci Fi, and, with the right syllabus, can exercise their moral muscles while engaging with literary and visual texts, as well as with each other. By “the right syllabus,” I by no means intend to imply that the list above is the one. As I have learned from many of my colleagues, from a variety of disciplines, many instructors have a “dream Sci Fi syllabus.” Some prefer “hard science” fiction, while others think “soft sciences” are best for discussing ethics. I think both can serve the purpose wonderfully, if the students feel initiated and engaged. Because my courses are Literature courses, I gravitate towards the texts with interesting literary aspects, but I have and will include “hard science” fiction. This syllabus is, as most syllabi are, always a work in progress.

### NOTE

<sup>1</sup> An earlier version of this paper was presented as a PowerPoint at the 10<sup>th</sup> International Conference of the Society for Ethics across the Curriculum, Towson University, Baltimore, MD. November 14, 2008.

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