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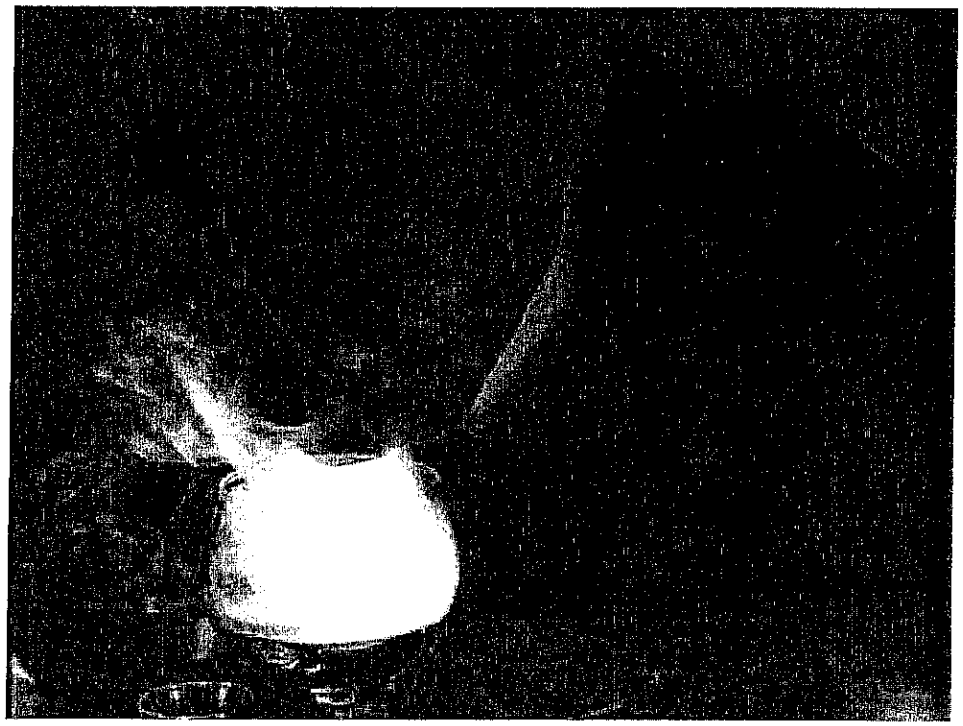

Using *Gattaca* to Teach Genetic Discrimination

Genetic discrimination is a suitable topic for courses in medical ethics and professional ethics, as well as general applied ethics courses.[1] This paper looks at ways of using the film *Gattaca* to help students understand this topic. *Gattaca* is especially useful for this because so few of us have first-hand experience with anything that we would label 'genetic discrimination.' The film, however, portrays an example of something to which many of us would apply this label. In addition, far from compromising rigor, one can use this film to pose a formidable challenge to students. In a moment, I will explain what this challenge is and suggest some questions that will help students generate, and evaluate, responses to this challenge. All of this can be used to help students think about some less familiar forms of discrimination, improve their analogical reasoning skills, and help them get comfortable with the fact that some discrimination charges are very difficult to assess.

Section 1 provides a short synopsis of the film. Section 2 goes over some concepts and questions that are designed to be given to students before they watch the film. Section 3 is designed to help make post-viewing discussion fruitful. All of this is offered as an illustration of the pedagogical benefits of teaching philosophy through film. Each suggestion should be modified in light of other course material, one's own teaching style, and students' general abilities, background in ethics, and background in thinking about discrimination.

1. Synopsis

In the words of its producer, Michael Shamberg, *Gattaca* is "social science fiction."[2] The film is set in the "not too distant future". The location is also left unspecified, though it appears to be America. The main character, Vincent (played by Ethan Hawke), is an "Invalid", someone who is born the old fashioned way, without any genetic enhancements to improve his looks, intelligence, memory, physical strength, proclivity to diseases, etc. Many in his society are born with such enhancements. Consequently, their genotypes are superior to Vincent's. They are called "Valids." As a boy, Vincent dreams of being an astronaut. But as an Invalid, he is disqualified from such a position. Only Valids can be astronauts. Vincent is relegated, instead, to being a janitor at, among other places, Gattaca Inc., a leading aeronautic company (hereafter I will use 'Gattaca' to refer to this company, and the italicized '*Gattaca*' to refer to the film).

The film briefly recounts Vincent's life in his early twenties, the life of a young Invalid. This is how Vincent describes the period:

> Like many others in my situation, I moved around a lot the next few years, getting work where I could. I must have cleaned half the toilets in the state. I belonged to a new underclass – no longer determined by social status or the color of your skin. No, now we have discrimination down to a science.

Then Vincent meets Jerome Morrow (played by Jude Law), a Valid, who just failed in an attempt to commit suicide. The attempt leaves Jerome a paraplegic. But both his failed suicide attempt and the fact that he is now a paraplegic are unknown to the powers that be. This puts Jerome in a position to sell his identity as a Valid to some Invalid who looks like him. A broker introduces them to one another, they agree to live together, and they become friends. Jerome supplies Vincent with the skin, hair, blood, urine, and other biological materials that Vincent needs to impersonate him. Doing so, Vincent gets what he wants, a job at Gattaca training to be an astronaut. His first mission is a year-long mission to Titan, Saturn's largest moon.

Vincent is a sympathetic character. Viewers find themselves cheering for him because he is a likable underdog. But we also cheer for him because we agree with his charge that he was discriminated against: Gattaca's policy unfairly disqualified him from astronaut training on the basis of his genes. Gattaca's hiring policy is simple: to train as an astronaut, one must be a genetically enhanced human, a Valid. To be genetically enhanced is to have one's genes altered, not merely in a therapeutic way to get rid of genes that might cause diseases and other harms, but beyond that so that one has superlative looks, intelligence, memory, etc. Invalids are only eligible to work at Gattaca's menial labor jobs. This policy seems to make Invalids, like Vincent, victims of genetic discrimination. And as the above quote suggests, this is just what Vincent thinks.[3]

But *was* Vincent really a victim of discrimination? *Is* Gattaca's hiring policy dis-

criminatory, and therefore immoral?[4] If so, what is the exact nature of this discrimination? And exactly why is it wrong? These are the questions I will focus on. Ultimately, I will suggest that in portraying Vincent as a victim of discrimination that is perpetrated by Gattaca, the film misleads us. I will propose that what is more likely is that Vincent is a victim of a form of discrimination that is perpetrated by his society, taken as a whole.

Before continuing any further, I should mention one of the film's shortcomings; it will be relevant a little later.[5] Occasionally, an implausibly strong form of genetic determinism is asserted in the film. The worst offense occurs early on, when Vincent reports that just after he was born, an analysis of his genes revealed "the exact time and cause" of his death: heart disease at age 30. Asking students why a prediction like this is far too specific to be plausible is a useful exercise. In my experience, students are in the habit of criticizing films' premises, and they know enough about how genes and the environment interact to recognize that this strong prediction is unwarranted. Here they can use their knowledge from biology courses to address a fundamental issue about humans. It also provides a good opportunity to raise some related questions about what can, and cannot, be inferred from knowledge of someone's genes at birth. For example, will such knowledge allow us to predict a person's phenotypic traits, including their future specific behaviors? And if these bold predictions are not warranted, what kinds of predictions are?

Fortunately, the film also provides a more accurate picture of what someone's genes tell us about their future. One instance comes in the same scene that we hear the outlandish prediction. There, the following probabilities are offered: there is a 60% chance that Vincent will develop a neurological condition, a 42% chance that he will develop manic depression, an 89% chance of attention deficit disorder, a 99% chance of heart disorder, and that his life expectancy is predicted to be 30.2 years. Claims like these do a better job of acknowledging the role that non-genetic, environmental factors play.[6]

2. Before Viewing

It is helpful to provide students with some concepts and questions that will aid their thinking about the film. A good place to start is with the general concept of discrimination. Students certainly possess this concept; and they are good at spotting many instances of discrimination. But, as Socrates might have wondered, what *in general* is discrimination? That is, what do all acts of discrimination have in common, from instances of racism to instances of sexism, homophobia, and ageism, as these are found in actions that take place in the workplace, in the criminal justice system, in educational settings, and elsewhere?

One thing that labeling an action 'discriminatory' conveys is a judgment about its moral status – in using this term, one is saying that an action is morally wrong. More

specifically, one is saying that a particular kind of immoral act has occurred, namely one in which a person was unfairly denied a benefit or was unfairly burdened in some way; and, that this was done because of some fact about her (e.g. her race, gender, sexual orientation, age, etc.).[7]

Discussing a case helps. I usually ask students to share personal experiences they have had in searching for a job, or a friend's or family member's experience of discriminatory hiring practices. Sadly, it usually doesn't take long for someone to report on an episode in which someone was denied a job because of their race, gender, religion, etc. When asked to say what is wrong with this, students have no difficulty answering: it is wrong because a person's race, or gender, or religion is *not relevant* to how well they will perform on the job. This suggests that, in general, discrimination involves denying someone a good (or assigning them a burden) because of their gender, race, religion, or some other characteristic, where this characteristic is *not relevant* to whether they *ought* to be denied that good (or whether they *ought* to be assigned that burden).

While typically race, gender, religion, etc. are irrelevant in this way, arguably, this is not always so. For example, arguably, it is not discrimination if the editors of *Ebony* decide to not have me, a white male, appear on their cover. Perhaps then there are some contexts in which one's race or gender actually qualifies, or disqualifies, one for a job. But even if this is so, the vast majority of jobs, including the astronaut job that Vincent is denied, are not like this.

Let's return to the thought that discrimination is wrong because at its core is a harmful kind of irrelevancy. Drawing a few simple distinctions will help us get a better grip on this irrelevancy. Consider discrimination in hiring. Take a woman who is denied a job because of her gender. Distinguish, first, *the basis* of the denial – her gender. Distinguish second *the good* that she was denied – in this case, the job. And last there is *the legitimate goals* the company is trying to achieve with the hire – for example, contributing to the profitability of the company. These categories allow us to pinpoint the irrelevancy that makes discrimination wrong. In the present case, this involves the absence of a connection between the first of these (i.e. the basis for why a person was denied the good) and the third (i.e. whether the company will achieve its legitimate goals). So in the present case, the litmus test for discrimination is whether the person's being female makes it more likely that she will fail to contribute to the company's profitability. If it doesn't, she is being discriminated against.[8]

Students must be alerted to some important complications. First, what matters are the *legitimate goals* that a company is trying to achieve with the hire. Any goal will not do. If there were that much latitude, a company whose goals were to further enrich and empower white people would *not* be guilty of discrimination when they exclude non-whites from high-paying jobs. After all, this *would* advance their goals. Nonetheless, this would be discriminatory. Why? Because the company's goals are not legitimate. Second, all bets are off when there is no connection between the basis and the legitimate goals, but this is only because of some discriminatory attitude. For ex-

ample, suppose that if a restaurant owner hires an African American as a waiter, many of her regular customers will quit eating at her restaurant. Consequently, and sadly, hiring an African American will thwart the owner's legitimate goal of making a living. Still refusing to hire the African American applicant for this reason would be discrimination. When there is a failure of relevancy that is itself due to discriminatory attitudes, this does nothing to nullify a charge of discrimination.

Transitioning now to some questions, here are four sets of questions for students to answer after they watch the film. The first set focuses on the time at which Vincent is denied entry into the astronaut program:

Q1a: What is the basis for Gattaca denying Vincent entry into their program?

Q1b: What good is Vincent denied?

Q1c: In denying him this good, what goals is Gattaca trying to achieve?

Q1d: Are these legitimate goals?

Q1e: Are any background discriminatory attitudes at work here?

Answering these questions puts students in a position to answer the next question:

Q2: Is the basis on which Gattaca excludes Vincent relevant to Gattaca achieving their legitimate goals? Explain.

Next are two questions about the nature of the relevancy:

Q3a: Is the basis on which Gattaca excludes Vincent a perfect, or imperfect, predictor of how well he would perform as an astronaut?

Q3b: If it is only an imperfect predictor, does this mean Gattaca did discriminate against Vincent?

Last are some questions about how *genes* figure into all of this:

Q4a: Is Gattaca's exclusion of Vincent discrimination because Gattaca looked at Vincent's *genes* (as opposed say to his level of education)?

Q4b: If the answer to the last question is yes, why do genes differ in this way from, say, level of education?

3. After Viewing

After students watch the film and answer the questions, it is time for discussion. Answering the first set of questions is pretty easy. The answer to Q1a is that Vincent is denied a highly desirable job on the inside of Gattaca because of his genes. The answer to Q1b is that the good he is denied is the job. In reply to Q1c, while the goals Gattaca is trying to achieve in hiring people for astronaut training are not explicitly stated, it seems safe to assume that they are what we would expect: for example, advancing space research, making a profit, etc. In reply to Q1d, if we assume that many of the familiar institutions that surround us and share these sorts of goals are not for this reason immoral institutions, these are legitimate goals for Gattaca to have. In reply to Q1e, no background discriminatory attitudes seem to be at work.

Things get more interesting with Q2. Clearly the facts about Vincent's genes *are* relevant to how he would perform as an astronaut. How well *anyone* would pilot a spacecraft depends, in part, on how likely that person is to suffer from heart failure, the quality of their vision and memory, and other features that are partly genetically based. Yet despite this, the thought persists that the hiring policy under which Gattaca rejects people like Vincent is discriminatory. So perhaps the fact that there *is* relevancy in this case is somehow not enough to make Gattaca's policy non-discriminatory. Or maybe Gattaca's policy is not discriminatory after all.

The questions at Q3a-b and Q4a-b are designed to help students think about ways of resisting the bold counterintuitive claim that Gattaca's policy is not discriminatory. Concerning Q3a, Vincent's genes are, of course, an imperfect indicator of how well he would perform as an astronaut. This follows from the fact that the strong version of genetic determinism discussed earlier is mistaken. And, as students sometimes notice, it looks like using genes alone to predict future job performance led to a mistake in Vincent's case. After all, Gattaca rates Vincent's prospects as poor because of his genes; yet Vincent ends up proving them wrong. As the Director at Gattaca himself says, Vincent is one of Gattaca's best. And in another scene, the Director says this to Vincent (not intending the irony): "Not one error in a million key strokes. It is right that someone like you is taking us to Titan." Still things are not so straightforward. Recall the important scene in which Vincent suffers cardiac arrhythmia, while exercising on a treadmill. In the end, the best thing to say is that really it is not clear whether Vincent disproves Gattaca's prediction.

But even if we think that Vincent does, at least for the most part, disprove Gattaca's prediction about Invalids like himself, how does *this* show that Gattaca is guilty of discrimination? All it really seems to mean is that by looking at job candidates' genes, Gattaca is looking at an *imperfect* predictor of future job performance. But this makes genes no different from other predictors of future job performance that are considered morally unproblematic. Prior work experience, recommendation letters, education, etc. are also *imperfect* predictors of future job performance. Gattaca, it seems, cannot be guilty of discrimination simply because they use an imperfect predictor of future job performance.

This gets us to the questions at Q4a-b. Perhaps the underlying problem is not that the predictors are imperfect, but that the predictors are *genes*? Let us initially step back and consider the broader category of biological features. Of course, in plenty of cases, employers look at other biological features to get an idea of how well someone might perform at a job. Professional sports are an obvious example. And shouldn't we expect the same for astronauts, since having the right physical attributes is also crucial for being a good astronaut? Of course, cognitive attributes are just as important, e.g., good memory, sharp concentration, sensitive reasoning abilities, etc. The question then is: what is wrong with looking at a person's genes to get an idea of both physical and cognitive traits?

A comparison with another case might help. Suppose that heart attack rates spike and this causes a rash of accidents because drivers are having heart attacks at the wheel. Insurance rates go through the roof. As a result, some trucking companies are adversely affected. We can imagine that some of these companies react by requiring job applicants to pass a physical exam that is designed to determine how likely they are to have a heart attack. This seems morally permissible for at least two reasons. First, in doing so, the companies are protecting a legitimate interest that they have. And, second, the alternative would be an undue burden on them: if the heart attacks are frequent enough, not screening job candidates could very well result in the company's demise. Now imagine that other companies decide to do something else: they decide that they will determine a prospective employee's heart attack risk by using a genetic test. If it is permissible for companies to require a physical and to exclude some people on the basis of its results, why is it not also permissible for companies to require a genetic test and to exclude some people on the basis of its results? Why do we get so squeamish when it is *genes* that companies want to look at?

At this point, students often point out that genetic information is importantly different from the information that is gathered from a physical exam because genetic information can be passed on to medical insurers, who might then refuse to offer insurance to people who are at high risk for heart disease (or any other health problem). This is true, and it is important. But for two reasons, it is not relevant to the issue we are pursuing here. First, the same holds for information acquired from a physical: that information can also be used to deny someone medical insurance. Still we think it would be ok for companies to conduct physicals. Second, and more importantly, the concern that genetic information might be passed on to insurers is a concern about *privacy*, not about discrimination. While sometimes related, these are two clearly distinct concerns. Violating someone's privacy by passing genetic information on to an insurer can lead to discrimination if the person is then unfairly denied coverage by that insurer. But even in a case like this, these are two quite different episodes. Moreover, this is not what Gattaca did to Vincent, nor does claim they did. He accuses them of genetic discrimination, plain and simple. So privacy concerns, while legitimate, are beside the point

Continuing with the comparison between these cases, let's look at another possibility. Someone who has a heart attack while driving a truck might kill innocent people. Prevention of such harm might justify genetic testing. Similarly, Gattaca's policy could be defended as non- discriminatory, if they, too, are disqualifying Invalids to protect innocent lives. In fact, we learn at the end of the film that there are at least four astronauts traveling with Vincent on the mission to Titan. On the other hand, we really have no idea how seriously the lives of these astronauts would be put at risk if Vincent were to have a fatal heart attack while on the mission. But most importantly, all of this comes much later in the film, well after the discrimination charge has been leveled. At the point in time when the charge is made, we do not know whether Gattaca's intent was primarily to protect innocent lives. In fact, for all we know at this earlier juncture, Gattaca might be looking for someone to fly a solo mission, in which case no innocent lives would be put at risk.

Still, maybe Gattaca should be declared not guilty for a reason along these lines. Doesn't such a corporation have a legitimate interest in their (extremely pricey) spacecraft? They own it and they do not want it destroyed or lost. Shouldn't they be able to protect it by hiring people who are not likely to fall ill on a mission? Even if we were to suppose that it was a solo mission, and even if the corporation would still get their spacecraft back if Vincent did have a coronary, don't they also have a legitimate interest in maximizing the likelihood of a successful mission? If so, this might imply that Gattaca is not guilty of discriminating against Vincent after all.[9]

That concludes my discussion of possible responses to the charge that Gattaca's policy was discriminatory. In what remains, I want to look at things from a very different angle. Perhaps it isn't Gattaca that discriminates against Vincent. But if not Gattaca, who? The best candidate is society as a whole.[10] Vincent's society seems to be arranged so that Invalids are excluded from many higher echelon professions, and are left with monotonous and unrewarding jobs. Recall Vincent's report that he had cleaned half the toilets in the state. And recall the praise that he earns from the Director. Had he remained a janitor, Vincent's potential would have been wasted. Of course, this still might fail to justify Vincent's fraudulent impersonation of Jerome. But that is not what we are presently considering. The question is now whether Vincent's society did an adequate job of providing him with opportunities to develop his talents.

So students can then consider the following proposition: if being a janitor is the best his society has to offer him (because he is an Invalid), then it is guilty of discriminating against him (and other Invalids). The underlying reason for this, and one that is frequently touted as being part of the American Dream, is that societies have (within reasonable limits) an obligation to provide each of their members with equal opportunities to develop their talents. When a society fails to do this for some group of its citizens, it discriminates against the members of that group.

Discussing this proposal with students gives them a chance to think about how *society as a whole*, and not just individual persons or individual institutions, can act immorally. One might see if students can come up with other instances in which *society as*

a whole acts immorally. For example, is it plausible to think that society acts immorally in some matters of the environment, in some matters that have consequences for future generations, and in some that involve ill treatment of people in other societies? If society as a whole can act immorally in these ways, this makes it more plausible to think that another way society can do this is by discriminating against some group of people.

Before this proposal can be evaluated, some clarifications are in order. First, the proposal here is not that the good that Vincent is denied is a job as an astronaut. Instead, it is something more abstract. The goods that he has been denied are opportunities to develop his native talents.

Second, if this proposal is to have a chance, it may need to be qualified in a few important ways. It perhaps should not apply to talents that, when developed, yield no social benefits. Some, like the talents of the assassin, will be harmful if they are developed, and hence it is better if they are left undeveloped. Others, like the talent of a great checkers player, may not harm others if they are developed, but they provide little in the way of social benefits. Arguably, societies have no obligation to provide their members with opportunities to develop either of these kinds of talents.

A second qualification is this: the proposal can only be practically applied to societies that are sufficiently affluent. This is important, because meeting the requirement contained in the proposal might reduce its overall production of goods and services. One reason for this is that allocating an opportunity (for example, a job) to someone because it will help him develop some of his talents might mean giving it to someone who will not perform as well at that job as some of his competitors.[11] Even if A has many talents relevant to perform some job and B has few, B may perform better at the job because of other determinants of job performance besides application of one's talents. For example, B might just work harder than A. Basketball fans know that many players were far more talented than Larry Bird, but they also know that very few performed better.[12] For this reason (among others), providing people with opportunities to develop their talents might have economic costs; so perhaps only comparatively wealthy societies should be obligated to bear these costs.[13]

Students can be asked to fill in other details of the proposal, with the aim of making it as plausible as it can be. For example, exactly which talents yield social benefits, and how substantial are they? Exactly what counts as a "social benefit" in the first place? These are excellent questions and well worth discussing with students. Let me turn though to another question. It concerns the practical implementation of this proposal. If some societies (such as our own) are morally required to provide opportunities for their members to develop their talents, *how* might they do this? In particular, how might this be done in a capitalist economy like ours? At least three possibilities are worth discussing with students. One is that a society should satisfy this duty by promoting cultural norms that highlight the value of giving people opportunities to develop their talents. These might exist alongside other cultural norms, like norms that call on us to protect the environment, hire disabled people, and give to worthwhile

charities. Many of us are more apt to patronize companies and institutions that abide by these norms, thus creating a market pressure to conform to them. Second is another mechanism that can work within a free market economy: philanthropists might provide financial rewards for companies that hire people with an eye to helping them develop their talents.

Third, and perhaps most worthy of discussion, is the proposal that governments sometimes interfere in the marketplace, either through laws or public policies, to assure that companies are helping people to develop their talents. The mere fact that this would constitute government interference in the market place does nothing to show that it is wrong, since there is broad agreement that government interference in the market place is often perfectly moral (e.g., in the form of bans on child labor, mandatory workplace safety standards, and anti-discrimination labor laws). Students who are against government interference aimed at boosting such talent-development can be challenged to say why this particular kind of interference would be wrong.[14]

I close with a brief summary and more explicit statement of the pedagogical benefits involved here. *Gattaca* poses a tough challenge for students to wrestle with. Was Vincent really treated unjustly? Or does the silver screen somehow *trick* us into thinking he was discriminated against? I suggested two central questions that are worth exploring: Is Gattaca's *policy* of refusing to hire Invalids like Vincent discriminatory? And is Vincent's *society*, taken as a whole, guilty of discriminating against Invalids by not doing enough to provide them with sufficient opportunities to develop their talents? Assessing each possibility, perhaps by exploring some of the specific lines of argument that I outlined, should get students to think about a less familiar variety of discrimination. It should also get them to see how difficult it is to assess some discrimination charges. On the journey, one way students can become better at *doing philosophy* is by trying to identify other more familiar cases of discrimination, or other more familiar cases that do not involve discrimination, which bear a strong resemblance to the situation portrayed in the film. This is just what I attempted to do with the example involving the trucking companies. Exercises like this help students get better at constructing, and evaluating, arguments by analogy.

The issues that I have discussed are open-ended, so one should expect students to take a variety of positions. Some students will think Gattaca's hiring policy is wrong for the same reasons that other forms of hiring discrimination that are not based on job candidates' genes are wrong. Other students will think Gattaca's policy is wrong, but for *sui generis* reasons that simply do not show up anywhere else. Some will conclude that, upon further reflection, Gattaca's policy is morally unproblematic. Expect similar divisions when discussing the view that society as a whole discriminates against Invalids by failing to provide them with opportunities to develop their talents. All of these are sensible ways to look at the issues involved. What counts, as always, is how well students can articulate the strengths and weaknesses of these positions.[15]

Peter Murphy

Notes

[1] Useful supplementary material includes important recent legislation. See *Genetic Information Nondiscrimination Act of 2008*, 110th Cong., 2nd sess., H.R. 493. For a useful summary, see Kathy Hudson et al., "Keeping Pace with the Times – The Genetic Information Nondiscrimination Act of 2008," *New England Journal of Medicine* 358.25 (June 19, 2008): 2661-2663.

[2] Quoted from http://www.angelfire.com/al/andrewniccol/Gattaca.html

[3] Vincent tells us that 'genoism', his society's word for genetic discrimination, is illegal, but that companies like Gattaca flaunt these laws.

[4] Genetic discrimination may already be occurring in health care. There are already documented cases of people being denied health insurance because of their genes. A complete unit on genetic discrimination would cover both genetic discrimination that results in being denied employment and genetic discrimination that results in being denied health insurance.

[5] For more on this and some other shortcomings of the film, see Neven Sesardic, "Gattaca," in *The Routledge Companion to Philosophy and Film*, ed. Paisley Livingston and Carl Plantinga (New York: Routledge, 2008).

[6] Even genes, like the ones involved in genetically-based diseases such as Tay-Sachs, Huntington's, and cystic fibrosis, do not *inevitably guarantee* that their carrier will develop certain traits. Someday we may have genetic therapies that will turn these genes off so that the traits do not appear; but of course the person would continue to carry the gene. For an accessible overview on genetic causation, see Elliott Sober, "The Meaning of Genetic Causation," Appendix One in *From Chance to Choice: Genetics and Justice* by Allen Buchanan et al. (New York: Cambridge University Press, 2000).

[7] In effect, 'discrimination' is a thick moral term. Such terms are dual-purpose. One of their purposes is to describe something. The other is to covey something moral, in particular whether the thing described is morally good or bad, or morally right or wrong. English is rife with these words. Some, like 'courageous', 'honest', and 'deserving' are positive; others, like 'coward', 'cheating', 'heartless', and 'discrimination' are negative. Students benefit from being alerted to these terms. A valuable exercise is to have students produce some thick moral terms, and isolate their purely descriptive, and moral, elements.

[8] If it does, it *may* be that she is discriminated against. See the second complication in the next paragraph for details.

[9] For what it is worth, my own tentative view is that for the foregoing reasons, Gattaca did not discriminate against Vincent when they originally did not hire him.

[10] Perhaps *both* society as a whole and Gattaca are guilty of discrimination. Students should recognize that these two discrimination charges are independent of one another – both might

be true, just one, or the other, or neither.

[11] Things are more complicated than this, since hiring the second of these people (i.e. the one that would perform best at the job) will itself be inefficient if the second person would do much better than anyone else at *some other* important job. I have simplified things by ignoring this sort of opportunity cost.

[12] Maybe this ignores the full range of Larry Bird's talents, in particular his non-physical talents. Still, some important traits that helped Bird succeed, like his competitiveness, are not correctly classified as *talents*.

[13] Roughly a sufficiently wealthy society is one that after bearing the costs of helping people develop some of their talents can still afford other important social goods. A complete political philosophy is needed to identify, and prioritize, all social goods. Second, the obligation discussed in this paragraph might come in degrees, so that the more affluent a society is, the stronger its obligation to help people develop their talents.

[14] For what it is worth, I think that societies do have a moral obligation to aid their members in developing their talents, and that this can justify interference in the marketplace.

[15] I benefited from the helpful comments of a reviewer and the editor of this journal.