Guest lecture: Tim Brown

[00:00:00.87] Hi, my name is Tim Brown. I'm a graduate student in the Philosophy Department at University of Washington. And I do neuroethics. And one of the big questions that I get is what is neuroethics in the first place. And so this is going to be a quick introduction to neuroethics.

[00:00:22.92] So the first question we should ask is, what is ethics? And it's very hard to give a definition of ethics. It's a big field, and it's hard to figure out how to explain it in one sentence. But here's a sentence if you want one. Ethics is the study of morality, or of right or wrong behavior.

[00:00:44.85] So it may be more useful to think about questions that you can think about using ethics. So for example, what does it mean to be a good person? So for example, are my everyday actions going to make me a better person or a worse person? Another question is, is it ever right to hurt someone? So is it possible to hurt someone in the interest of the greater good, is what a lot of people would say, or is it never right to hurt anyone ever?

[00:01:14.82] But it's important to realize that ethics is not just about making good decisions, for example. Because there are so many things that we do in our everyday lives that have nothing to do with ethics or morality at all. So for example, picking a good college, for example. These are not about ethics. But they are important decisions.

[00:01:40.20] Ethics is also not about following the law or figuring out what the law says about what you're doing. Because if you'll recall, there have been many cases in the history of law where people shouldn't follow the law. Some laws are unjust. We'll come back to that later.

[00:02:02.37] Finally, ethics is not just about following religious beliefs or principles. While certain religious beliefs do give you a platform for being a good person or doing good by others, many religious beliefs and principles don't have anything to do with ethics or morality. And so we still need to talk about ethics when it comes to religious beliefs and principles.

[00:02:31.80] There are two different kinds of ethics too. We can say there's a distinction between descriptive ethics and normative ethics. There are two different kinds of ethics too-- descriptive ethics and normative ethics, where descriptive ethics describes what specific people believe about ethics, their social, cultural values, or even the neuroscience of how people make ethical decisions.

[00:02:55.47] Normative ethics gives us a framework for understanding what people should believe. So if a person does something, and you believe that they've made the wrong decision, then normative ethics would be how you would convince them that they've made the wrong decision.

[00:03:15.37] So there are four ways to do normative ethics, or at least four frameworks that we use to do normative ethics. And this is by no means an exhaustive list. These are just the four common ones that you'll run into.

[00:03:30.69] The first is utilitarianism. And utilitarianism approaches moral problems by asking what will cause the best outcome for the most people. So the utilitarian wants to achieve the greatest good for the greatest number. That's the slogan you'll hear. The deontologist, on the other hand, would ask what duties do we have as moral people. So instead of looking at the outcomes of a decision, we look at our reasons for making the decision in the first place.

[00:04:06.81] The virtue ethicist would ask what would a good person do, and how can we be good. So the virtue ethicist cares about what it takes to be a good person. So where the utilitarian cares about the best outcome for the greatest number of people, and the deontologist cares about our duties as people who think about morals, and the virtue ethicist cares about what good people do, the care ethicist cares about building relationships between people and maintaining them.

[00:04:43.50] And so the question that the care ethicist would ask is what obligations do we have to each other when we are in deep relationships with them. All four of these ways of thinking about ethics are useful to neuroethics. And they are not the only frameworks that we can use to think about neuroethics. And since neuroethics is a very, very new field, we should keep our options open.

[00:05:19.46] So let's talk about neuroethics. And there are two kinds of neuroethics, or we could say there's a distinction between two different kinds of neuroethics. So on one hand, there's the neuroscience of ethics. And the neuroscience of ethics asks what can neuroscience tell us about being moral.

[00:05:40.00] So, for example, a neuroscientist might run imaging studies to scan the brain while people make moral decisions. And they can figure out what parts of the brain light up when we make moral decisions. And that could lead us to interesting insights about what kinds of interventions we can make, what mental illness looks like in certain cases.

[00:06:09.59] But on the other hand, there's the ethics of neuroscience and neurotechnology. This field asks what kinds of research are off limits. So are there kinds of research in neuroscience that we just shouldn't do, and are there kinds of neurotechnology that we should just not produce. The ethics of neuroscience and neurotechnology also asks what impact will neurotechnology have on society. So are there technologies that labs produce that will cause greater harms to the entire community of human beings.

[00:06:56.51] So now let's look at a variety of problems that neuroethics raises. But before we can do that, we have to look at the target of neuroethics. And neuroethics, on the whole, is targeted at certain technologies that come out of neuroscience. And of these technologies, there are pharmaceutical drugs. This is the popular topic-- so for example, things like Prozac and Ritalin.

[00:07:23.41] And neuroethics is also focused on or directed at sensing technology, technologies that read data from the brain and do whatever to it. Neuroethics is also concerned with devices that stimulate the brain. So for example, deep brain stimulation. And we'll talk about that later. And of the problems that come out of these technologies, there are six common themes.

[00:07:54.67] There are identity themes. So for example, there is a worry that people using these technologies will undergo severe or drastic identity changes. So we are left with the question, when a person uses a certain kind of neurotechnology, have they become a different person? Another theme is normality. And this is a theme that comes out of the disability rights literature. So we throw around the word normal. And it's often difficult to pin down what we mean by it.

[00:08:37.09] Do we mean common or, something that we see everyday, or something that we want to be the case? And so when we describe people as normal or abnormal, it's often difficult to separate descriptions from norms. And in the case of people with disabilities, the usual recipients of these technologies, the people who use these technologies, we often wonder will they be restored to normal when they use these technologies? Will other people be raised to a level past normal? These are the kinds of questions we think about when we think about normality.

[00:09:24.40] Another thing that arises is authority. And we could mean a lot of different things by this word. But what I mean is self-authority, or control over your own actions. So when a person is using a technology that stimulates their brain in some way, and it produces some kind of behavioral change, a person might come to question whether or not they're in control of their own actions, whether or not they have authorship over themselves or their life story.

[00:09:58.72] Another theme that arises is responsibility. So if you are being stimulated by a device that's implanted in your brain, and it's causing all kinds of behavioral changes, some intentional, some maybe not so intentional, are you responsible for your own actions? Or is the device responsible? Or is your doctor responsible? Or is the device manufacturer responsible? There are lots of people who could be responsible. And who's responsible if you do something that causes harm?

[00:10:38.50] Another thing that arises is privacy. So many of the technologies that neuroethics is concerned with are fairly advanced devices. And these devices have a lot of capabilities. Some devices may have the ability to apply stimulation, or read from the brain, and it takes a lot of computing power to do those things. But with any complicated computer system, there's a security risk.

[00:11:11.27] So what do we do with these devices to make sure that they're secure? What can a device do with the data? What can people do with the data collected from brains? And also, what can device manufacturers do to make sure that no one compromises devices that are implanted in people? So in other words, what can device manufacturers do to make sure that people don't hack these implants?

[00:11:43.18] And finally, there are justice concerns. And these concerns are not too different from other concerns raised of other kinds of technologies. So for example, we can worry about whether or not people who are disadvantaged get access to pharmaceutical drugs, just as we can ask the same question about brain implants. But we think that there are fairly new questions that we can ask about neurotechnologies.

[00:12:18.18] So for example, can these devices be used to target specific groups of people, people of color, people in the LGBTQ community, people in immigrant communities. Are these technologies a new threat or are they just an old threat?

[00:12:43.44] So let's take what we find and apply it to a hypothetical case. So suppose that you're interviewing for jobs with tech companies, and one reputable company wants to hire you, but they also want to see if you will fit into their corporate culture. They ask you to take neuro personality test.

[00:13:03.60] And then this test, you wear a hat with sensors in it. And these sensors pick up your brain's activity. And then they'll put you in front of a screen and flash pictures. The hat will pick up your brain's responses to those pictures. And they say that they'll be able to understand you, and they'll be able to understand you better from this test than they would from an interview.

[00:13:30.72] There are a few questions that you could ask about this case. But the first one you should ask is, well, would you take the test? So maybe you would think that it was too much of an invasion of your privacy. Maybe you don't want them to have that kind of information. Or maybe you don't think that you should have to fit into their corporate culture.

[00:13:57.20] Is it possible to even refuse this kind of test? Well, you might think, yeah, it is possible to refuse. I don't have to take the job. But what if you really needed that job? Would it be possible to refuse? And more to the point, would it be possible to refuse the test and still have a shot at the job? Is it even OK to ask people to take a test if they want a job at your company? Is this OK for the company to do?

[00:14:32.39] And what kinds of regulations should be in place for people who do ask these kinds of questions? You might think this is similar to being asked to take a fingerprint, or being asked to take a drug test. But neither of those things actually reads from your brain. And we typically think that our brains make us who we are, or at least a lot of us do. And also, is this any different from written personality tests, like the Myers-Briggs personality tests, or from just good old-fashioned social networks snooping?

[00:15:13.63] Let's think about another similar case. You're driving home and the police pull you over. They explain that you fit the description of somebody who committed an armed robbery. And so, of course, they detain you. And when they get you down to the station, they tell you that they're testing a new way of interrogating crimes.

[00:15:37.44] You wear the same sensor hat we mentioned before. And then they show you images of the crime scene. Your brain's responses to those images tell them if you're guilty. Is it OK for law enforcement to ask civilians to do this? Is it too invasive? Is it too much to ask? And is this at all different from an employer asking you to take a similar test to see if you fit the corporate culture?

[00:16:10.06] If they do find that you might have committed a crime, should they trust the test over your own testimony? How should this test be weighed against other evidence? And finally,

could this test be used to target people unjustly? These are the justice issues we mentioned earlier.