



Computer Systems and Professional Practice

Professor Matthew Leeke
School of Computer Science
University of Birmingham

Ethical, Moral and Social Perspectives

A Thought Experiment - The Health Lottery

Every year people die due to the lack of transplant organs

One healthy person has several healthy organs - heart, kidneys, lungs, liver, blood, eyes, etc.

If we were to select one person and force them to donate their organs, we could save several lives

Unfortunately this would be fatal, but we'd kill one person and save severa

Proposal: We'll have a Health Lottery once per month for all citizens 18-30, with the selected person(s) being forcibly euthanised and their body parts used to save the lives of many

Thoughts?

Introduction

Ethics is the branch of philosophy which considers what is right and wrong behaviour

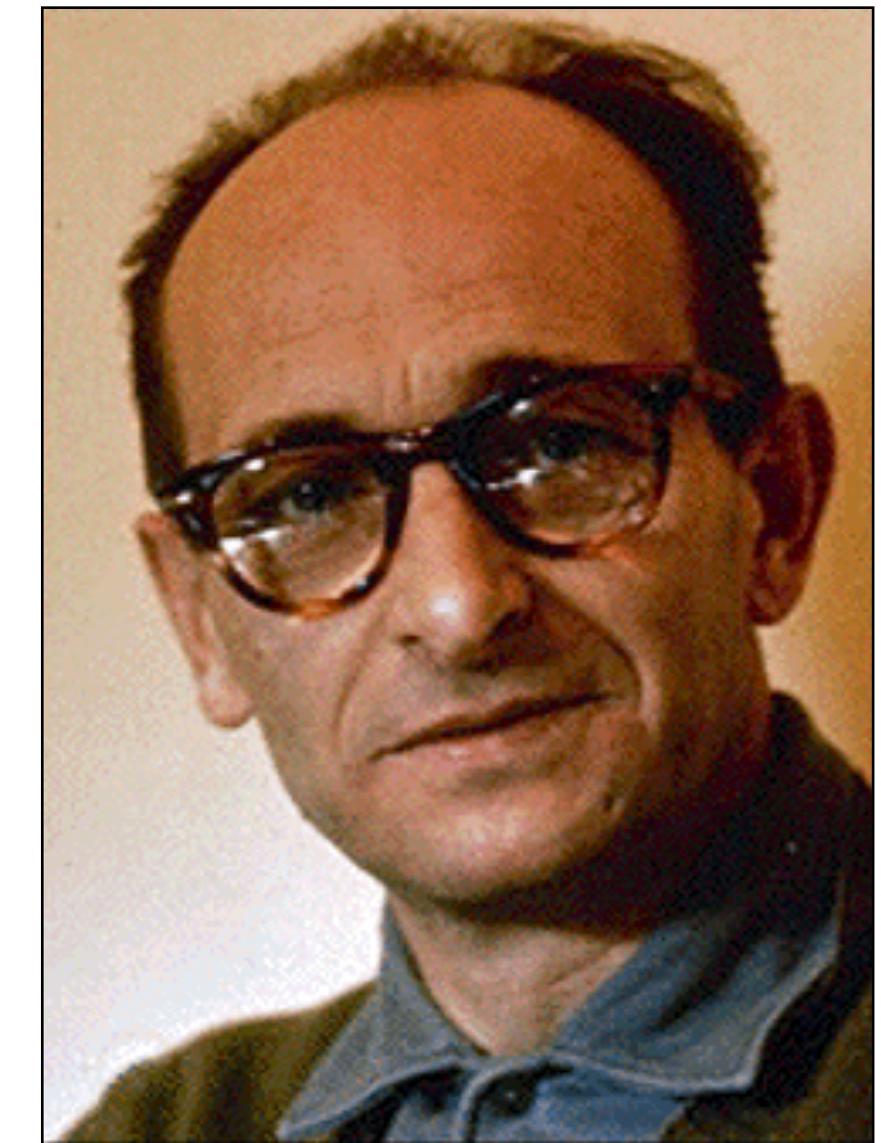
Most people consider themselves to be "good"

Responsible, decent, honest

Clearly bad things happen

Claim: Much evil is done by not considering ethics more seriously

... sometimes the ethics of a situation are complex



A Technological Example - Stuxnet

Sophisticated virus/worm discovered in 2010, probably developed by US/Israeli Intelligence

Spread by MS Windows

Actively targets Siemens Industrial SCADA systems

Iranian Nuclear Reactors

http://www.ted.com/talks/ralph_langner_cracking_stuxnet_a_21st_century_cyberweapon.html

What are the ethics?

Delay of Iranian Nuclear Missile Programme, but entailed the worldwide infection of Windows PCs

Alternatives?

Smart Bombs and the assassination of Iranian nuclear scientists (January, 2012)

What is Moral Philosophy?

Philosophy – rational analysis of assumptions and arguments

Moral Philosophy asks basic questions

What does it mean to be/do good?

What is wrong/evil?

How can we make sure we live a “good life”?

Moral Philosophy is not directly practical

It doesn't tell us what to do

Rather how to evaluate what we do within a moral framework

Is Stealing Wrong?

Religious observance

But not everybody believes in a religion
Surely atheists can be moral?

Against the law

Slavery was legal in the US
Apartheid in S. Africa

Societal norms

Is morality just like fashion or popular tastes in music?

Discussion Stoppers

Four objections to moral discourse (Tavani 2011)

1. People disagree on solutions to moral issues

But also disagreements in all aspects of science

Most of us agree on the major points of morality (don't steal, don't kill, etc.)

2. Who am I to judge others?

Sometimes judgement is needed

Human rights abuses

Sometimes we need to intervene

Discussion Stoppers

Four objections to moral discourse (Tavani 2011)

3. Morality is a private matter

Not just private beliefs

Your actions (and mine) effect others

4. Morality is a matter for individual cultures to decide

Moral relativism

Female circumcision, slavery, ages of consent (requirement of consent)

Considerable agreement across cultures

Martin Niemöller (1892-1984)

First they came for the communists,
and I didn't speak out
because I wasn't a communist.

Then they came for the trade unionists,
and I didn't speak out because
I wasn't a trade unionist.

Then they came for the Jews,
and I didn't speak out because
I wasn't a Jew.

Then they came for me,
and there was no one left to speak for me.



Milgram's Experiment

A 1963 psychology experiment, partially inspired by trial of Eichmann in Israel

Volunteers are asked to help administer an experiment on learning word combinations

Play the role of teacher

Ask questions to another “volunteer” and administer an electric shock for every wrong answer

Voltage increases each time and other volunteer might mention their heart condition

Up to four prods to continue experiment

High degree of stress for most volunteers

65% of volunteers willingly administer a 450 volt shock

Virtue Ethics

Ethics was a pre-occupation of Greek Philosophy

Socrates (469 BC)

A good life is one based on self development rather than wealth

Virtues – courage, honesty, friendship

The community is more important than the individual

Virtue Ethics

Aristotle (384 BC)

Virtue is the proper function of a thing

An eye is good if it sees

A person is good if they follow their soul with reason to achieve happiness

To be happy requires a good character

Epicurus (341 BC)

Point of life is happiness, tranquility and friendship

Self-sufficiency

Pain and pleasure are measures of good and evil

Hedonism

Stoicism

Founded by Zeno of Citium (3 BC)

Popular with the Roman Empire

Marcus Aurelius (121-180 CE)

"When you wake up in the morning, tell yourself: The people I deal with today will be meddling, ungrateful, arrogant, dishonest, jealous, and surly. They are like this because they can't tell good from evil. But I have seen the beauty of good, and the ugliness of evil, and have recognized that the wrongdoer has a nature related to my own—not of the same blood or birth, but the same mind, and possessing a share of the divine"

Stoicism

Rationality and acceptance of misfortunes

Passion is the cause of suffering

Ignorance the main cause of evil in the world

Thinking as a spiritual (and moral) exercise

Equality and brotherhood of all mankind... till 529 AD - philosophy is outlawed by Justinian 1st

Utilitarianism

Jeremy Bentham (1725 AD)

Hedonic Calculus

Any pleasure or pain can be measured and quantified

Act Utilitarianism (John Stuart Mill)

An action is right if it promotes happiness

Choose the action that will produce the greatest amount of happiness (pleasure - pain)

Utilitarianism and the Law

People tend to be selfish (?)

Greatest happiness for greatest number implies altruism

Law exists to enforce altruism for the benefit of society

Why stealing is wrong

Stealing increases the happiness of the thief

Lowers happiness of original owner

Makes rest of society feel insecure

Laws against theft protect society

Punishment should be just enough to deter anti-social acts (but no more)

Problems

How do you quantify pleasure and pain?

How do we decide what is good if we don't know consequences, e.g., give 20 pounds to two pensioners or 20p to 200 pensioners?

Utilitarianism ignores the needs of an individual

Specialist Medical treatments need funding

Funding comes from taxes

Taxes make everybody (else) unhappy

Therefore perhaps we should stop medical treatments except for common illnesses

Your house is on fire - who do you rescue first?

Your mother

The vicar (having tea with your mum)

The young burglar upstairs

Stanford Prison Experiment

Phillip Zimbardo (1971)

24 Student volunteers were classed as either jailers or prisoners

Mock prison in basement of department

Orientation Session for guards

Mock uniforms and wooden batons

Advised not to hurt prisoners but create fear, boredom, anxiety

Rights Ethics

Good actions respect the rights of individuals

Rights Ethics - **John Locke (18th century)**

Humans have essential rights

French Declaration of Human Rights (1789)

Universal equality

"liberty, property, security and resistance to oppression"

US Bill of Rights (1791)

"life, liberty, and estate"

European Convention on Human Rights

Duty Ethics

Imperatives for right behaviour (**Kant, 1785 ...**)

Hypothetical (prudential)

If you want to be healthy, take exercise

Categorical (moral)

No if - moral reason is enough

Be kind

Be honest

No exceptions

"By a lie a man throws away, and as it were, annihilates his dignity as a man"

Categorical Imperative - Kant

1. Act as if you are legislating for everybody else

If you do an action, would you want everybody to behave that way?

Treat any action as if it was a law for everybody

2. Act so as to treat human beings always as ends and never merely means

I pay a man to work in my garden

I own a slave who works in my garden

3. Act as if you were a member of a realm of ends

Realm = state, community

Act as a member of a community

All of whom treat each other as ends rather than means

All of whom decide as if they were legislating for all

The Golden Rule

One should treat others as one would like others to treat oneself

One should not treat others in ways that one would not like to be treated

"Hence, (keeping these in mind), by self-control and by making dharma (right conduct) your main focus, treat others as you treat yourself." Mahābhārata (~9th century BC?)

"Never impose on others what you would not choose for yourself." - Confucius (5th century BC)

"And as ye would that men should do to you, do ye also to them likewise" Luke 6:31 (70-90 AD ?)



The Third Wave

Ron Jones was a history teacher at Cubberley High School in Palo Alto, California in (1967) who performed a social experiment to demonstrate the allure and mechanics of fascism

School children asked to join the Third Wave

"Strength through discipline, Strength through community,"

"Strength through action, Strength through pride"

First day - Small number of rules (stand to speak, address teacher as Mr. Jones)

Second day - Closed fist salute, more rules

Third day - Better academic grades, group grows to 200 members, and members start informing on each other

Fourth Day - Experiment stopped due to "concerns"

Jones was fired two years later (<https://www.youtube.com/watch?v=asmPoLk-hLA>)



Closing Thoughts On Ethics

Most of us regard ourselves as good people and, for the most part, we probably are

Hanlon's Razor: "Never attribute to malice, that which can be explained by incompetence"

Many studies show that (good) people can behave badly given the right conditions

History constantly teaches us much worse

"an unexamined life is not worth living" - Socrates

