Aspetos Socio Profissionais da Informática
(Informatics and Society)

A Short Introduction to Ethics

Departamento de Informática da

FCT/UNL

Lecture Outline

- Morality, Ethics and Law
- The importance of Ethics in the Information Age
- Ethical Analysis

These slides are partially based on slides of Prof. *Gordana Dodig-Crnkovic* - School of Innovation, Design and Engineering, Mälardalen University and on Chapter 2 of Michael J. Quinn, "Ethics for the Information Age"

The Same Fundamental Question

Is it good or bad?

Some Examples of Moral Conflicts

LIVES BEFORE PROFIT
COSATU SUPPORTS
DRUGS
PROFITEERING
TREAT HIV/AIDS

Arguments for Trade Related Aspects of Intellectual Property Rights (TRIPS) TRIPS

In the interest of the inventor, company and home country – partial

Arguments in favour:

(1) A person who has invented or created something also has the right to control and own his or her invention or creation.

(2) IPR encourage and reward creative work and as a consequence companies have incentives to develop new technology which benefits economic development and welfare

Arguments Against

- Prices on AIDS/HIV drugs > 100$/month
- Millions of patients die…
- Right to medicine?

USA Department of Justice against Edward Snowden (the whistle blower)

Edward Joseph Snowden (born June 21, 1983) is an American fugitive, a former Central Intelligence Agency (CIA) employee, and former contractor for the United States government who copied and leaked highly classified information from the National Security Agency (NSA) in 2013. His disclosures revealed numerous global surveillance programs, many run by the NSA and the Five Eyes Intelligence Alliance with the cooperation of telecommunication companies and European governments.

(From Wikipedia, the free encyclopedia)

USA Department of Justice

- E. Snowden is accused of violating the Espionage Act of 1917 and theft of government property
- Installing backdoors in all networked devices is proportionate and necessary for the security of the State against all terrorists and foreign powers
- Storing and analyzing all possible data and meta data on every person, without any previous judge authorization is legal

Edward Snowden and Many Others

- Storing and analysing: private data, communications, conversations, smartphone and computer memory of people in general, without legal authorization based on evidences, is a gigantic breach of privacy, civil rights, etc.

- Obliging companies to implement the means to implement it (STILL) is completely unlawful

I am Developing an Autonomous System based on Decision / Learning Algorithms

- If that system will hurt peoples life, can I fully ignore that fact?
- If that system will lead to an huge concentration of private economic power, can I fully ignore that fact?
- If that system will undermine democracy, can I fully ignore that fact?

May Be, More Than Ever, We Face Difficult Questions

- In real life, many things are not black and white
- Law may be absent or may need to be challenged
- In modern life, we face many new policy and law vacuums

Morality and Ethics

The terms ethics and morality are often used interchangeably - indeed, they usually can mean the same thing, and in casual conversation there isn't a problem with switching between one and the other.

However, there is a distinction between them in philosophy!

Morality and Ethics

Morality and ethics have same roots, ***mores*** which means manner and customs (*usos e costumes*) from the Latin and ***etos*** which means custom and habits from the Greek.

Strictly speaking, morality is used to refer to what we would call **moral conduct** while ethics is used to refer to the **formal study of moral conduct**.

Ethics is also often called **moral philosophy**.

Morality and Ethics

- Morality: first-order set of **beliefs and practices** about how to live a good life
- Ethics: a second-order, **conscious reflection** on the adequacy of our moral beliefs

- Morality - PRAXIS - Often not enough

- Ethics - THEORY - The support of deeper reasoning

Morality

- Set of beliefs, procedures and norms that we acquire by culture from the group we belong to
- These norms, in general, do not need to be written since we acquire them by education and everyday life
- Depends heavily on your tribe, group, nation, region of the world and religion
- Many moral decisions are empirical, only based on experience

Is Empirical Morality Enough?

- World changes continually, and we have to interpret/construe it over and over again
- Technology is having a deep impact in our believes
- We come back to ideas again and again, finding new meaning in them
- Professional discussions of ethical issues in journals

Unworkable Ethical Theories

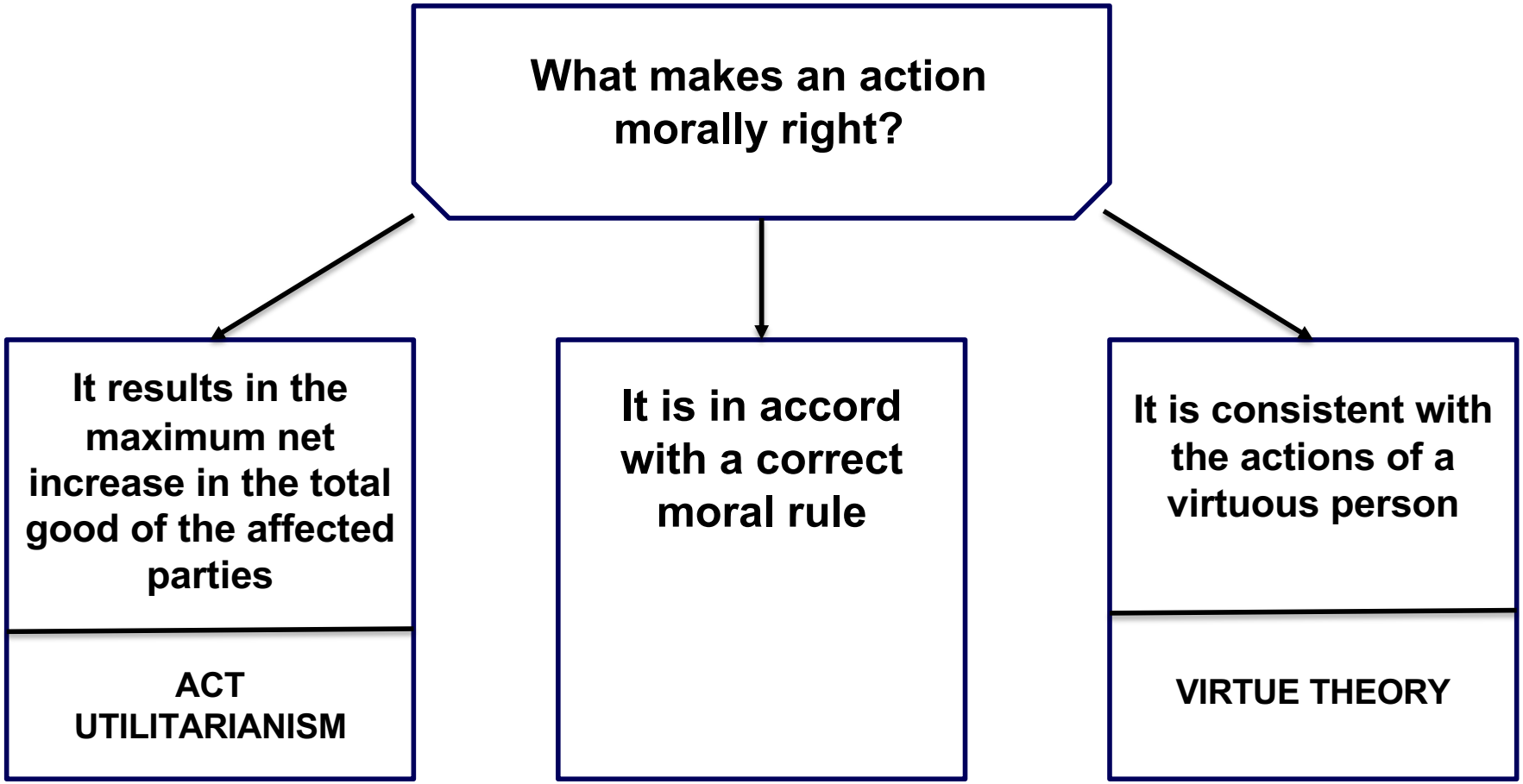
- Divine Command Theories ("My religion …")
- Subjectivism Relativism ("What's right for you may not be right for me")
- Cultural Relativism ("It is arrogant for one society to judge another")
- Ethical Egoism ("Everyone maximizes is gain")

Workable Ethical Theories

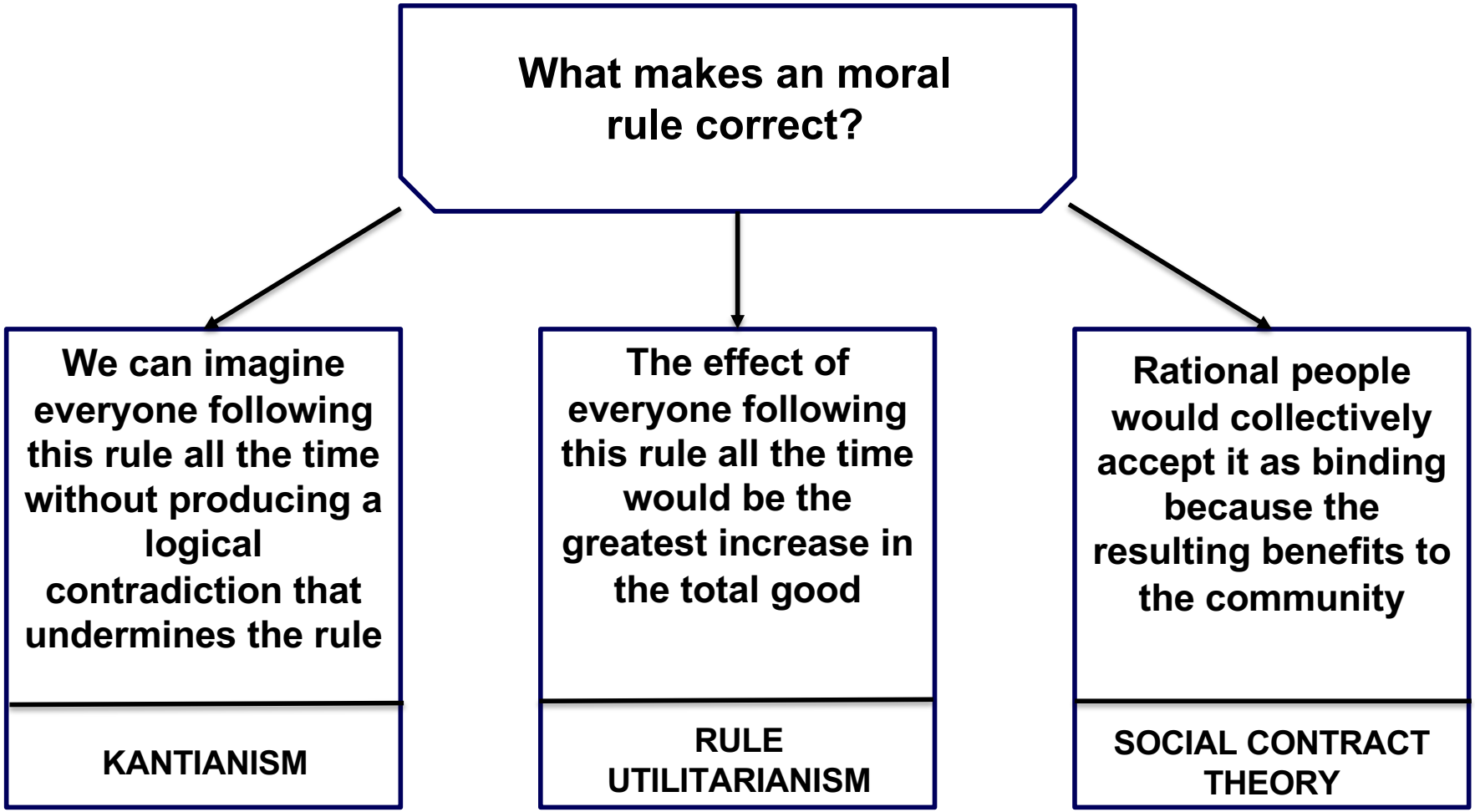
Something is good if:

- it maximizes usefulness – Utilitarianism
- it is consistent with a rule that maximizes usefulness – Rule Utilitarianism
- it is consistent with a moral rule -
- if it is what a virtuous person would do – Virtue Theory
- everybody chooses to the same, it will not lead to a logical contradiction that would undermine this choice (Kantianism)
- it is in accordance with the Social Contract – Social Contract Theory

Action Rule Workable Ethical Theories



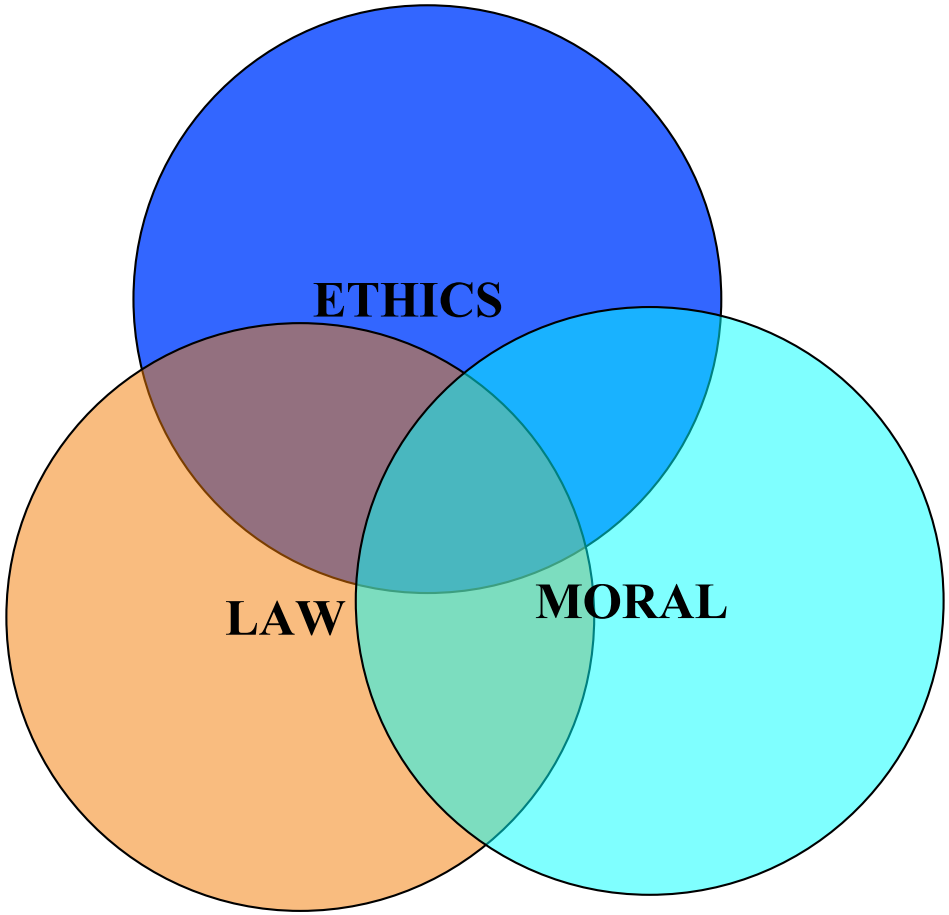
Moral Rule Workable Ethical Theories



The Law

- Amoral or unethical behaviours are not sanctioned in concrete terms only, sometimes, in social terms
- Society and State establish concrete **sanctions** for the so called unlawful actions
- **Regulations and codes of conduct** - less severe sanctions (fines, professional sanctions, …)
- **Civil law** - sanctions are fines, penalties, payments (indemnizações), since the offender is not dangerous for the society in general
- **Criminal law** - sanctions include prison, detention, confinement, imprisonment

Morality, Ethics and Law



Why Ethics in Computing is becoming more and more important?

A Brave New World

"Dear Andy: How have you been? Your mother and I are fine. We miss you. Please sign off your computer and come downstairs for something to eat. Love, Dad."

A Brave New World

"Hello, Bob? It's your father again. I have another question about my new computer. Can I tape a movie from cable TV then fax it from my VCR to my CD-ROM then E-mail it to my brother's *cellular phone so he can make a* copy on his neighbor's camcorder?"

A Brave New World

A Brave New World

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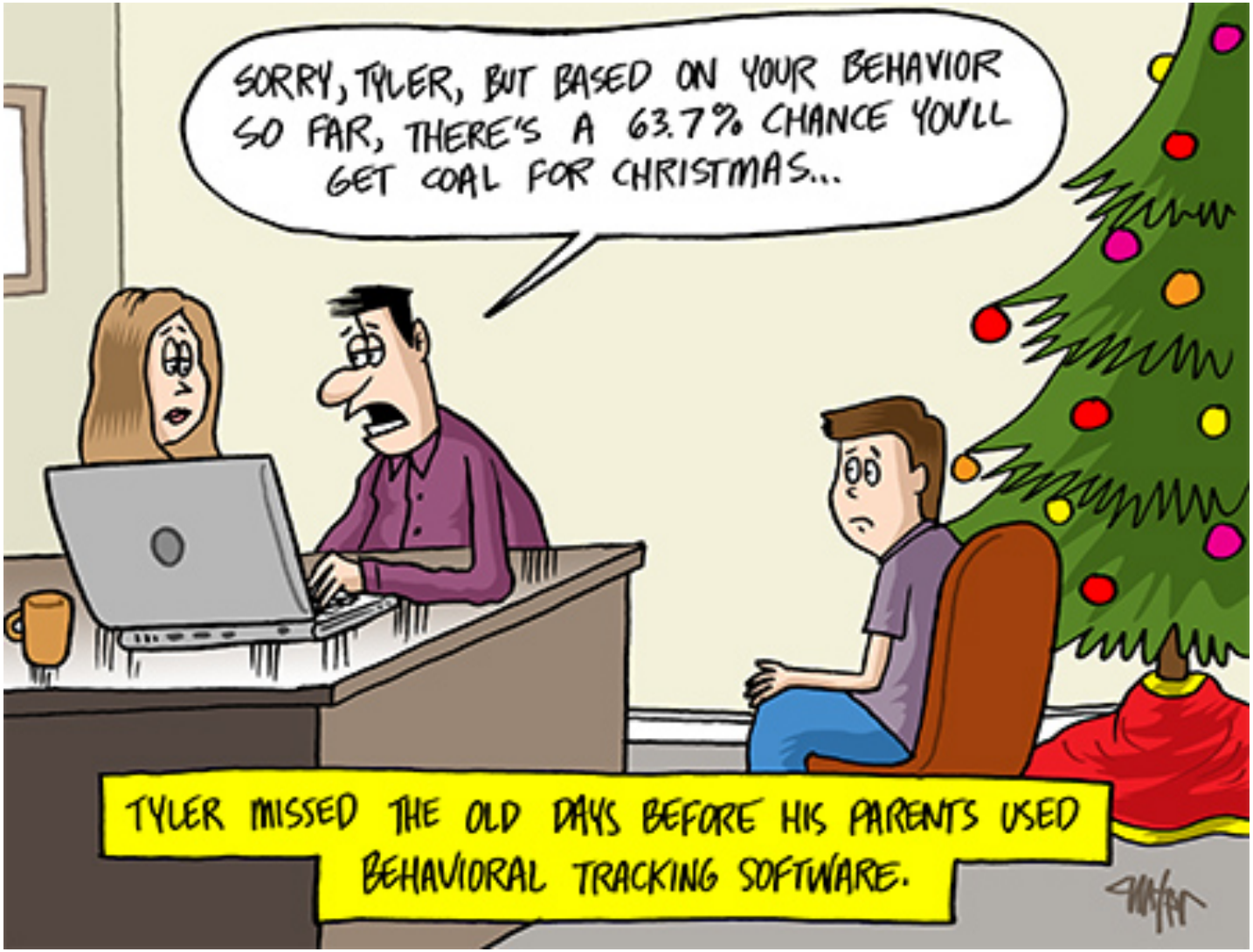

What is Special About Computing?

- Computing and life support systems
- Computing and privacy and private data
- Computing and communications
- Computing and the new media
- Computing and the old media
- Computing and commerce, publicity (behavioural tracking)
- Computing and Learning
- Computing and Entertainment
- Computing and Commerce
- Computing and Jobs (Gig-Economy)
- Computing and Surveillance
- Cyber War

The Same Fundamental Question

Too often, new technology develops with little attention to its impact upon human values

Computing Ethics

Computing ethics is the analysis of the nature and social impact of computer technology and the corresponding formulation and justification of policies for the ethical use of such technology.

The Aims

- Understand the impact of computing technology upon human values
- Minimize the damage that such technology can do to human values, and
- Identify ways to use computer technology to advance human values
- Do so by separating right from wrong options using an analysis based on workable ethical theories

Conclusion

- There are many differences among morals, ethics and law
- Ethics concerns all aspects of modern collective life and has its roots in philosophy
- Current and future computing and communication systems challenge many moral believes and ethics

Annex – Ethical Theories

Ethics is Neede Since we Live in Society

- Living in a Society requires the cooperation among individuals and help to promote the common goog and maximizes the benefits
- However, people in a community also compete
- When competing, we are deciding how to divide limites benefits among hourselves

Morality = the rules used in a certain society describing what people can do, or should do, or must do, in several situations

Ethics

- Ethics is the philosofical study of morality, a rational examination of the people moral beliefs and of people behavior
- Ethical theories allows one to give a logical justification / explanation why a certain decision is right, while others can believe it is wrong

I try to persuade them that my decision is the right one

Unworkable Ethical Theories

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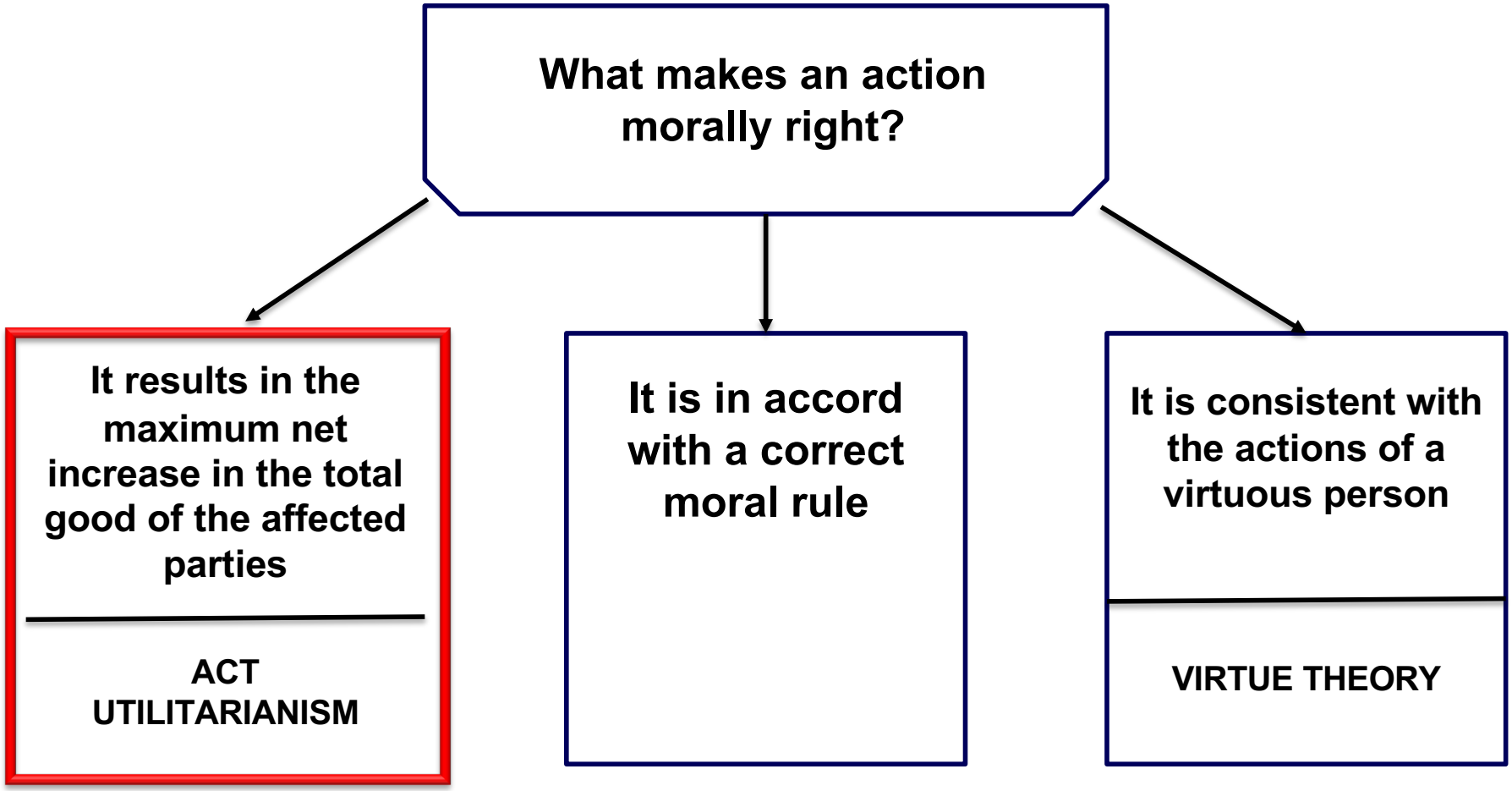
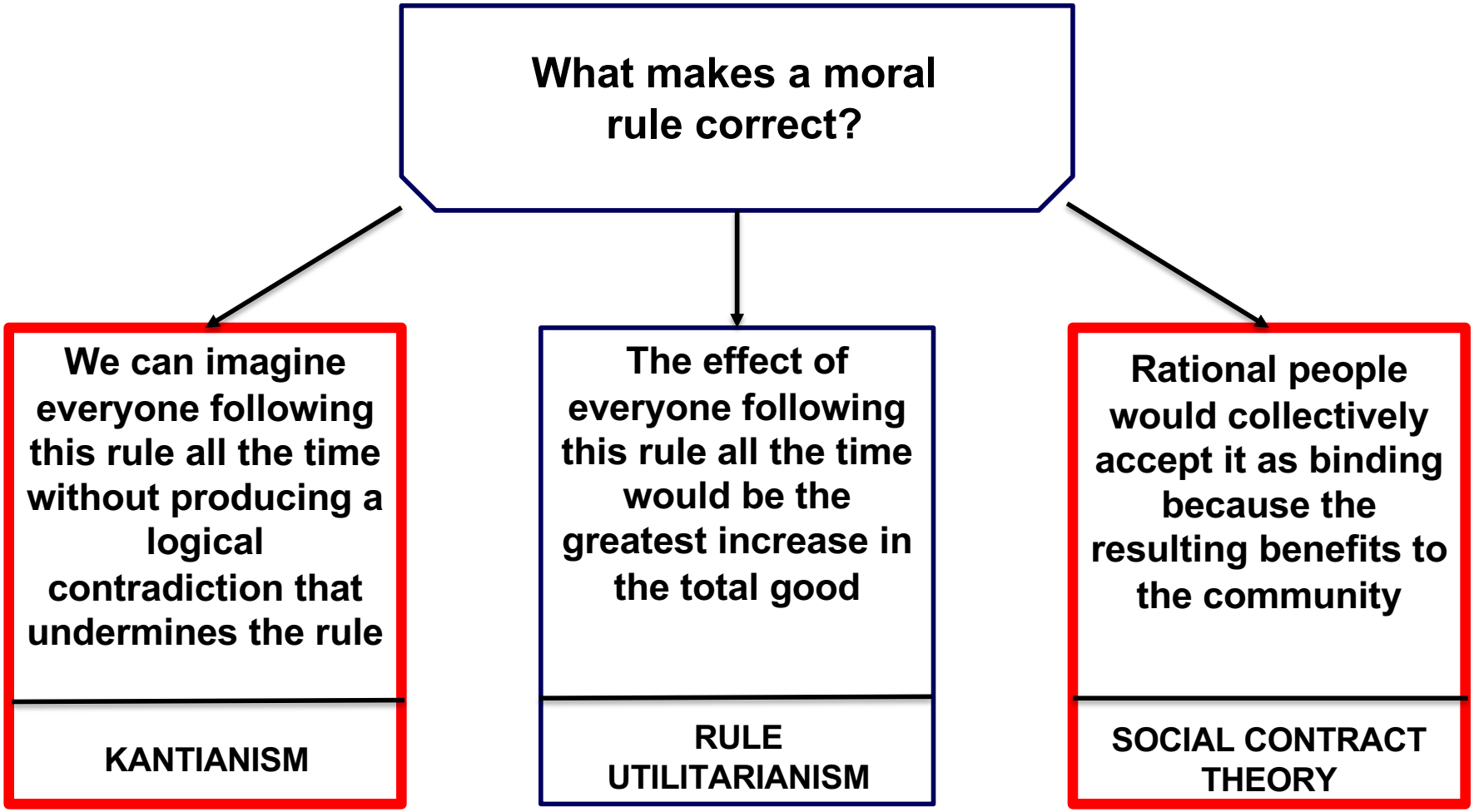


Moral Rule Workable Ethical Theories



Slides identical of those made available by Pearson to instructors using:

Michael J. Quinn "Ethics for the Information Age", 6th Edition

2.6 Kantianism

Critical Importance of Good Will

- Good will: the desire to do the right thing
- Immanuel Kant: Only thing in the world that is good without qualification is a good will
- Reason should cultivate desire to do right thing

- What we want to do is of no importance. Our focus should be on what we ought to do – Our dutifulness

Moral Rules

- The moral value of an action depends on the underlying moral rule
- Our actions should be grounded in the appropriate moral rule
- A categorial imperative is an unconditional rule: a rule that always applies, regardeless of the cirscuntancies
- Only a categorial imperative may be a moral rule

Categorical Imperative (1st Formulation)

Act only from moral rules that you can at the same time will to be universal moral laws

Illustration

- Question: Can a person in dire straits make a promise with the intention of breaking it later?
- Proposed rule: "I may make promises with the intention of later breaking them."
- The person in trouble wants his promise to be believed so he can get what he needs.
- Universalize rule: Everyone may make & break promises
- Everyone breaking promises would make promises unbelievable, contradicting desire to have promise believed
- The rule is flawed. The answer is "No."

A Quick Check

- When evaluating a proposed action, reverse roles
- What would you think if that person did the same thing to you?
- Negative reaction → evidence that your will to do that action violates the Categorical Imperative

Categorical Imperative (2nd Formulation)

Act so that you treat both yourself and other people as ends in themselves and never only as a means to an end.

This is usually an easier formulation to work with than the first formulation of the Categorical Imperative.

Kant: Wrong to Use Another Person Solely as a Means to an End

Plagiarism Scenario

- Carla
  - Single mother
  - Works full time
  - Takes two evening courses/semester
- History class
  - Requires more work than normal
  - Carla earning an "A" on all work so far
  - Carla doesn't have time to write final report
- Carla purchases report; submits it as her own work

Kantian Evaluation (1st Formulation)

- Carla wants credit for plagiarized report
- Rule: "You may claim credit for work performed by someone else"
- If rule universalized, reports would no longer be credible indicator's of student's knowledge, and professors would not give credit for reports
- Proposal moral rule is self-defeating
- It is wrong for Carla to turn in a purchased report

Kantian Evaluation (2nd Formulation)

- Carla submitted another person's work as her own
- She attempted to deceive professor
- She treated professor as a means to an end
  - End: passing the course
  - Means: manipulate professor
- What Carla did was wrong

Case for Kantianism

- Aligns with common moral concern: "What if everyone acted that way?"
- Produces universal moral guidelines
- Treats all persons as moral equals

Perfect and Imperfect Duties

- Perfect duty: duty obliged to fulfil without exception
  - Example: Telling the truth

- Imperfect duty: duty obliged to fulfil in general but not in every instance
  - Example: Helping others

Case Against Kantianism

- Sometimes no rule adequately characterizes an action
- Sometimes there is no way to resolve a conflict between rules
  - In a conflict between a perfect duty and an imperfect duty, perfect duty prevails
  - In a conflict between two perfect duties, no solution
- Kantianism allows no exceptions to perfect duties
- Despite weaknesses, a workable ethical theory

2.7 Act Utilitarianism

Principle of Utility

- Jeremy Bentham and John Stuart Mill
- An action is good if its benefits exceeds its harms
- An action is bad if its harms exceed its benefits
- Utility: tendency of an object to produce happiness or prevent unhappiness for an individual or a community
- Happiness = advantage = benefit = good = pleasure
- Unhappiness = disadvantage = cost = evil = pain

Principle of Utility

An action is right (or wrong) to the extent that it increases (or decreases) the total happiness of the affected parties.

While analysing a decision, compare the sum of benefit it produces to the sum of harm it causes

Act Utilitarianism

- Utilitarianism
  - Morality of an action has nothing to do with intent – Focuses on the consequences
  - A consequentialist theory
- Act utilitarianism
  - Add up change in happiness of all affected beings
  - Sum > 0, action is good
  - Sum < 0, action is bad

- Right action to take: one that maximizes the sum

Bentham: Weighing Pleasure/Pain

- Intensity
- Duration
- Certainty
- Propinquity
- Fecundity
- Purity
- Extent

Highway Routing Scenario

- State may replace a curvy stretch of highway
- New highway segment 1 mile shorter
- 150 houses would have to be removed
- Some wildlife habitat would be destroyed

Evaluation

- Costs
  - $20 million to compensate homeowners
  - $10 million to construct new highway
  - Lost wildlife habitat worth $1 million
- Benefits
  - $39 million savings in automobile driving costs
- Conclusion
  - Benefits exceed costs
  - Building highway a good action

Case for Act Utilitarianism

- Focuses on happiness
- Down-to-earth (practical)
- Comprehensive

Case Against Act Utilitarianism

- Unclear whom to include in calculations and how far out into the future to consider
- Too much work
- Ignores our innate sense of duty
- We cannot predict consequences with certainty
- Susceptible to the problem of moral luck
- Overall, a workable ethical theory

2.9 Social Contract Theory