MODULE 5
ETHICS AND WORLD VIEWS IN RELATION TO BIOTECHNOLOGY

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Course Structure/ Module Content

- **Unit 1; Overview of the subject of Ethics**

- Unit 2; Diversity of socio-cultural world-views and their impacts on the uptake of biotech

- Unit 3; Ethical issues in the uptake of Biotech

- Unit 4; Case Studies of the influence of ethical concerns in the use /adoption of biotech

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Overview / Background to Module 5

- As an important tool for guaranteeing food security, biotechnology comes with ethical challenges
  - Biotech processes & products elicit considerable ethical questions, arguments & concerns
  - These ethical concerns are numerous because of different socio-cultural & religious world views
- Understanding the subject of ethics related to biotechnology will aid quality decision making
- Understanding the ethical concerns & strategies to manage them are essential for uptake of biotech.

Aim of Module 5

To expose the students to ethical considerations and prevailing world views that influence disposition to, and uptake of biotechnology in different countries of the world

Unit 1
Overview of the subject of Ethics (4h).
Lecture 1
Meanings & definitions of ethical concepts (1h).

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Unit 1: Lecture 1; (1hour)
Meanings & definitions of ethical concepts

- Students are expected to understand the following terms and concepts:
  - Ethics
  - Bioethics
  - Morality
  - Values
  - Principles
  - Theories
  - Right
  - Justice

  - Beneficence
  - Etc.
  - Understand similarities and differences between terms
  - Rules and procedures for ethical decision making.
  - Implement class exercises to understand bioethics
  - Read summary of the philosophies of 3 great thinkers and discuss ethical dilemma using their framework

Complexity of ethics

- Ethical issues are seldom neat and tidy.
  - They pose questions or dilemmas that have no clear-cut (necessarily right or wrong) answers.
  - They involve questions about which even well-informed people who want only the best for themselves and others will often reasonably disagree.
  - They appear shifty, dynamic and environment influenced.

Ethics is knowing the difference between what you have a right to do and what is right to do- Potter Stewart

Ethics

- What do members of the class understand by the term ethics; note
  - the variety as starting point to define ethics;
  - the variation over time, culture & circumstances;
- Based on class response, explain the relatedness & difference between ethics & law, religion, morality or what society accepts.
- Attempt a broad based definition of ethics.

Ethics defined

- <u>What then is ethics?</u> 1;
  - Ethics refers to well-founded standards of right and wrong; what humans ought to do, usually in terms of rights, obligations, benefits to society, fairness, or specific virtues;
  - a system of moral principles; social, religious or civil code of behaviour considered **correct** for person, group or profession.
  - Ethics deals strongly in the realm of **right or wrong**.
  - Those standards that impose reasonable obligations to refrain from e.g., rape, stealing, murder, slander., etc.
    - Ethical standards also refer to virtues of honesty, compassion, & loyalty.
    - …those relating to right to life, freedom from injury, to privacy etc.

…..ethics defined 2

- …. study and development of one's ethical standards.
  - Note that, feelings, laws, and social norms can deviate from what is ethical; -so it is necessary to constantly examine one's standards to ensure they are reasonable and well-founded.

- …. continuous effort at studying our own moral beliefs and moral conduct; striving to ensure that we, and the institutions we help to shape, live up to standards that are reasonable and solidly-based.

http://www.scu.edu/ethics/practicing/decision/whatisethics.html#sthash.7KroDH4d.c31VqG2X.dpuf

Ethics and equity and the principles of justice do not change with the calendar. D. H. Lawrence

Bioethics

- **Bioethics** deal with the moral rights and wrongs (ethical issues) related to biological situations.
  - explores ethical issues relating to or emerging from new situations and possibilities brought about by advances in biology and medicine
- **Traditionally**, related to ethical issues in the practice of medicine as medical policy, medical practice and medical research
- **Today,** concerned with ethical questions that arise in the relationships among and related to all life sciences

Issues of Bioethical Concern

- Emerging trends & possibilities in biology and medicine have expanded & complicated bioethical decision making.
- Bioethics is a multi-disciplinary area of enquiry
- Bioethics arose out of concern for and anticipation of issues and controversies that relate to scientific use and experimentation with plants and animals.
  - Debates over boundaries of life and related matters
  - Surrogacy
  - Organ donation/transplantation
  - Right to refuse medical care for religious or cultural reasons
  - Genetic manipulation, transfer & therapy, human genetics, cloning, stem cell, activities that have led to allegation of "playing God", etc.
  - All actions that might help or harm organisms capable of feeling fear
  - Matters related to ecology and the environment
  - **All development with potential to affect pace and direction of evolution**

The notion that human life is sacred just because it is human life is medieval- Peter Singer

Understanding Bioethics (Exercise)

- Look up the meaning of selected critical terms
  - Morals, principles, right, justice, virtue, beneficence, Values, Bioethics; sentience; moral agent & moral patient
    - How are VALUES different from MORALS?;
    - What are the differences between MORALS and ETHICS?;
    - In your own words, what, then, is BIOETHICS?
- Raise and address some ethical issues in biology
- Explore strategies for facing the issues
- Implement class discussion of identified issues
  - Participation is key to success

"Under traditional medical ethics, the guiding principle is 'do no harm'. But contemporary bioethics abandons this...in an effort to find the utilitarian goal of the greatest good for the greatest number. Under these principles, preserving the life of the human patient is not considered paramount" Pope Benedict XVI 2010

Ethics Exercise

1. identify some of the ethical problems inherent in biotech;
2. assess the factual information available;
3. consider who will be affected and in what ways;
4. identify the options available to the decision maker;
5. decide which values are at stake:-
     freedom, truth-telling, fairness, respect, scientific knowledge, ecology, human and animal well-being;
6. consider the **process** for bioethical decision-making: the law, the family, and society.
7. Practice a working model that has life long application
8. Learn important elements needed for decision making in (bio)ethics

Class is to select its own important and challenging scenarios

Ethical Decision Making Process/ Some basic Rules

In bioethics the right answers are not in the book; and, you won't have them; sometimes there are no definitive right answers, only those that are more or less reasonable, or defensible and justifiable in the light of reflection, analysis, and dialogue

- Open your mind to new ideas & learn connections between decisions, actions & consequences
- All ideas and opinions must be put on the table
- Nothing wrong with expressing an idea with which others will disagree

There can be no final truth in ethics any more than in physics, until the last man has had his experience and said his say- William James

Strategies to Analyse Bioethical Issues

1. Identify the problem(s) – What has to be decided? By Whom? What issue does it raise?

2. Assess the relevant facts - What is not known that should be known? Where can you find that information? Is that source reliable?

3. Who will be affected by the decision & in what ways –

   "innocent bystanders"? do they understand the risks?

4. What are the options?

   Are they narrow or forced? Can it be a "Win-Win" situation?

5. What is the process?

   Any legal precedent? Do I need the cooperation of others? Is there "due process" and participation by all persons involved?

6. What values are at stake?– freedom, honesty, respect, ecology, growth of scientific knowledge, human and animal well-being?

We don't eliminate problems by eliminating the people to whom problems happen

Bioethics decision making practice

- Class will be guided to use the above decision making model to practice making bioethical decision.
- Class to suggest and decide issue that will be used for model building
  - Creating a microorganism that kills tomato pests
  - A couple deciding the gender of their child/ selecting other traits
  - Family deciding to donate an organ of their brain dead child/relation
  - Inserting pig growth hormone genes in sheep / dwarf goats
  - Pest resistant crops; Herbicide resistant crops
  - Other biotechnology issues

Philosophical Study Guide

- Use technology & innovation to satisfy real needs of people, not to satisfy materialism- Philosophy of Herbert Marcuse

- Why do people act the way they do- Philosophy of Abraham Maslow

- Those who have the least should be given the most help- Philosophy of John Rawls
  - Students will be provided a summary of the listed works to aid understanding of why certain ethical decisions may be taken one way or another by different people in different circumstances

Reference/ Further Reading

- http://www.scu.edu/ethics/practicing/focusareas/medical/articles.html
- http://www.scu.edu/ethics/articles/articles.cfm?fam=GENE
- http://www.scu.edu/ethics/practicing/focusareas/medical/conference/presentations/genetically-modified-foods.html
- http://www.scu.edu/ethics/publications/submitted/schulman/tomatoes.html

Unit 1
Overview of the subject of Ethics (4h).
Lecture 2
Distinction between related concepts (1h).

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Unit 1: Lecture 2; (1hour)
Distinction between related concepts

Students are expected to:

- Understand the distinction / relationship between:
  - Ethics and Religion
  - Ethics and Law
  - Ethics and Morality
  - Etc.,
- Be in a position to relate ethics with other related concepts defined in lect.1

- Understand the centrality of ethics in deciding dilemmas encountered in life
- Understand how ethics covers all spheres of life and influence lifelong decisions
- Other related matters

Religion vs. Ethics…

- The link between religion and ethics seems obvious- both deal in the realm of morality (e.g., Christianity's 10 commandments)

- Religion, is a system of beliefs and practices… ..system of belief in God who gives instructions?

- Religions contribute in defining what may be considered right or wrong through the values they embody (take e.g. from society)

- Religion produces both formal &informal norms & provides people with freedom/ constraint duality by prescribing acceptable behaviours

…..Religion vs. Ethics

- Through exposure to norms, customs, laws, scripts & practices, religions impart members with values and produce reciprocal expectations of predictability;
    - These provide guides for- or embody what are considered ethical behaviours (for the religion (adherents) and its society)
- Religious derived values are often mirrored in societal values (codified laws or non-codified social norms).
- Ethics relate to man's attempt at rationalizing between good and evil; a system of right and wrong. It may derive from or be influenced by religion
- Ethical thoughts have been & continue to be influenced by religions;
- However, being religious does not always translate to being ethical or high ethical standards
    - Religion may imbue one with ethical norms but ethics appears to be on a different plane (beyond religion)

Law vs. Ethics

- Law is a consistent set of published rules , accepted & generally enforced

- Laws set ways in which persons and entities are required to act in relation with others (codification of certain ethical values)

- Laws are universal; apply to everyone with or facing similar characteristics

- Laws are enforceable very much unlike ethics that are not

- The foundation of ethics is need to do to others as we would have them do to us.

Law vs. Ethics contd..

- Ethics attempts to define what is good for individual and the society;
  - establishing sets of duties that individuals owe to themselves and others
- Ethics of a society are the guiding principles behind creation of laws.
- There are relations between law and ethics and these may occasionally overlap
  - when what is perceived to be unethical is also illegal but in some cases, what is deemed unethical may be legal (or may not be illegal)
- Most legal duties are founded upon moral obligations or ethical considerations (ethics appears to guide law).
- Laws carry punishments for violation; in ethics everything depends on a person's conscience and self-worth.
- Together, Ethics and Law are necessary to provide guidance and stability to people and society

Law vs. Ethics (synthesis)

- In summary:
    - Ethics are rules of conduct; Laws are rules developed by governments to provide balance in society and protect citizens.
    - Ethics comes from people's awareness of what is right and wrong; Laws are enforced by governments.
    - Ethics are moral codes which every person 'must' conform to; Laws are codifications of ethics meant to regulate society.
    - Violation of ethics does not carry any punishment; the law will punish anyone who violates it.
    - Ethics comes from within a person's moral values; Laws are made with ethics as a guiding principle.

Ethics vs. Morality

- Morality is the differentiation of intentions between good or right and bad or wrong

- Morality can be a body of standards or principles derived from a code of conduct (philosophy, religion or culture), or from a standard that a person believes should be universal

- Morality may be synonymous with goodness or rightness; Universality

- Morality refers to some codes of conduct put forward by society, or group (e.g., religion) or an individual for own behaviour;
  - code of conduct that is taken as most important.

Ethics vs. Morality contd..

- Morality refers to a code of conduct that given specified conditions would be put forward by all rational persons

- Morality plays crucial role in formulating ethical theories and in some instances (moral ethics) is taken to be synonymous with ethics

- Unlike law, morality does not have agents who enforce it and apply penalties nor does it have written rules even though there are overlap in conducts governed by law and morality.
  - Criticism on the basis of morality is strong ground to change law and it is often argued that interpretation of law should lean significantly on morality.

Ethics as tread through human endeavours

Moderated Class Discussion:

- ?Ethics is at the base of every human endeavour
- ?Discuss how ethical considerations will influence choices in biotech practices and products (crop examples preferred)
- What foods will you not eat on ethical considerations? why?
- What biotechnology research will you refuse to fund on ethical grounds if you were to head a grant making foundation? Why? Which grant would you reject? Why?
- How will ethical considerations influence your research choices as a scientist?

Unit 1

Overview of the subject of Ethics (4h).

Lectures 3 & 4

Ethical theories or sources of ethical standards (as tools to evaluate ethical arguments about biotechnology)(2h).

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Unit 1: Lectures 3 & 4 (2 hours)
Ethical theories or sources of ethical standards (as tools to evaluate ethical arguments about biotechnology)

At the end of the lecture students are expected to understand

- three leading ethical theories:
    - Consequentialism (Mill's Utilitarianism)
    - Deontology (Kantian ethics)
    - Virtue ethics (Aristotle's Moral theory)
- African Moral Theory & environmental ethics

- Understand how these ethical theories can serve as bases to evaluate ethical arguments related to biotechnology and take decisions accordingly (on application & adoption of biotechnology)
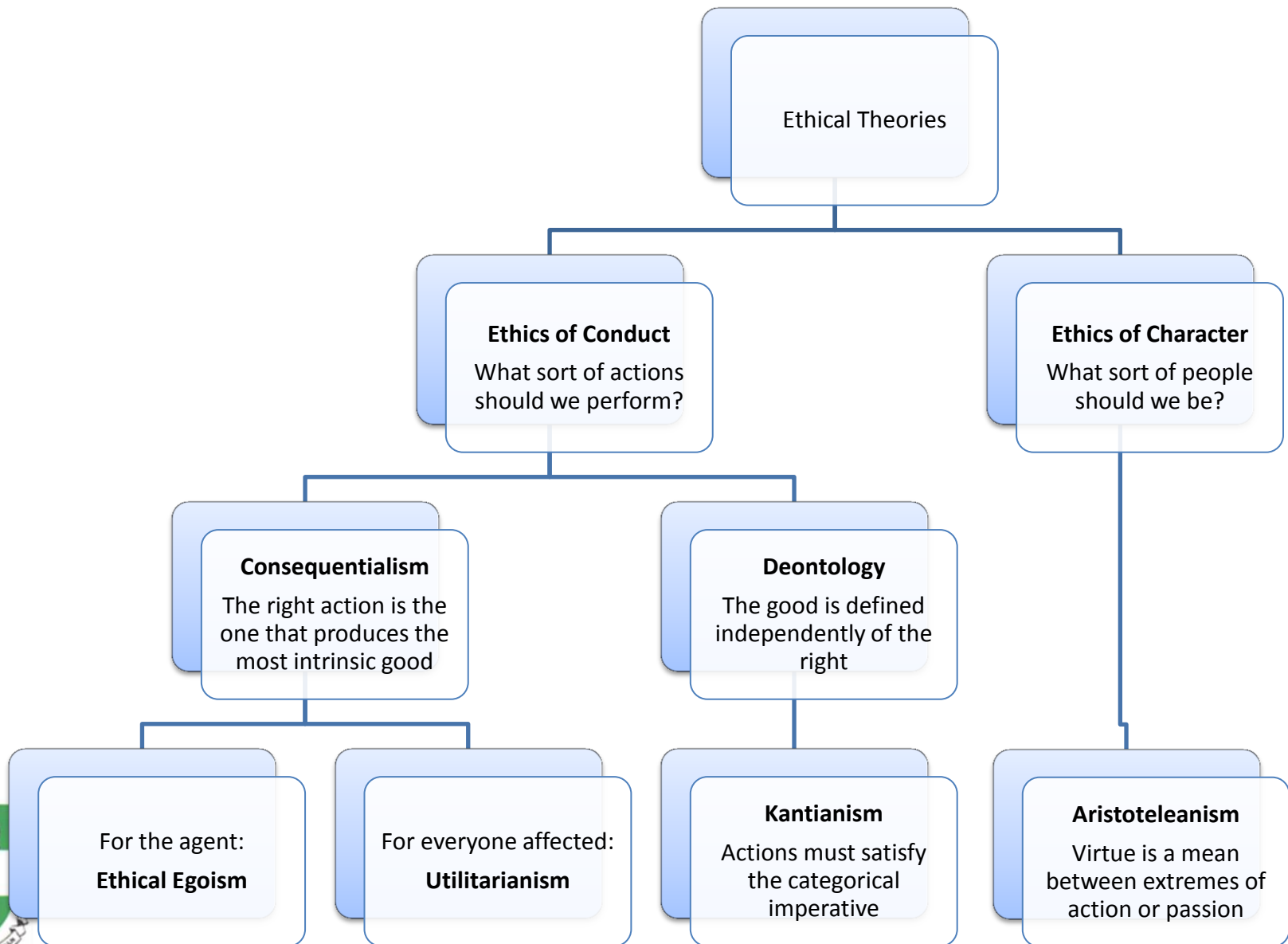
Comparison of Ethical Theories

- Ethics of a society is embedded in the ideas and beliefs about right or wrong; good or bad
- It is embedded in the concept of satisfactory social relations and attitudes held by members of the society
- It is also embedded in forms and patterns of behaviour that are considered by members of the society to bring about harmony and cooperative living, justice and fairness.
- The ideas and beliefs about moral conduct are articulated & encapsulated in ethical theories

Classification of Ethical Theories

Ethical Theories

Ethics of Conduct
What sort of actions should we perform?

Ethics of Character
What sort of people should we be?

Consequentialism
The right action is the one that produces the most intrinsic good

Deontology
The good is defined independently of the right

For the agent:
Ethical Egoism

For everyone affected:
Utilitarianism

Kantianism
Actions must satisfy the categorical imperative

Aristoteleanism
Virtue is a mean between extremes of action or passion

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Ethical Theories Compared

	Consequentialism	Deontology	Virtue Theory
Example	Mill's utilitarianism	Kantian ethics	Aristotle's moral theory
Abstract description	An action is right if it promotes the best consequences.	An action is right if it is in accordance with a moral rule or principle.	An action is right if it is what a virtuous agent would do in the circumstances.
More concrete specification	The best consequences are those in which happiness is maximized.	A moral rule is one that is required by rationality.	A virtuous agent is one who acts virtuously, that is, one who has and exercises the virtues. A virtue is a character trait a human being needs to flourish or live well.

	Consequentialism	Deontology	Virtue Ethics
Example	Utilitarianism	Kantianism	Aristotelianism
Model of practical reasoning	Means-ends reasoning: how do I get what I want/ what's good?	How do I determine what's rational?	What habits should I develop?
Rationality	Getting what you want	Doing what reason requires (not having inconsistent or self-contradictory policies)	Having the kinds of desires which reason determines are best
Central question	What ought I to do? (act orientation)	What ought I to do? (act orientation)	What's the best sort of person to be? (agent orientation)
Primary object of evaluation	Consequences (states of affairs)	Acts	People (agents)
The good	**Basic Notion.** (for most, maximum happiness or similar)	Right action itself (or possibly states of affairs brought about by right action?)	Whatever results from the actions of good people? happiness?
The right	actions that maximize the good	**BASIC NOTION**	The sort of thing a virtuous person would do in the situation
Virtue	being disposed to maximize utility (for simple versions of consequentialism, there will be just one big virtue)	Positive attitude toward doing one's moral duty (?)	**BASIC NOTION** (but may be analyzed, e.g. as those dispositions necessary for the attainment of happiness)

Consequentialism (Mill's Utilitarianism).....

- This is the view that normative properties depend only on consequences

- Whether an Act is morally Right depends only on the consequences of that Act or something related to the act (e.g. motive behind the act)

- Choices (acts/intentions) are to be morally assessed solely by the states of affairs they bring about

- Consequentialists must specify the state of affairs that are intrinsically valuable "the good"

...Consequentialism (Mill's Utilitarianism).....

- Whatever choices increase the Good; bring about more of it, are the choices that are morally right to make and to execute
- An Act is morally right only if it maximises the good;
  - only if the total amount of good for all minus the total amount of bad is greater than this net amount for any incompatible act available to the agent on that occasion (Act consequentialism)
- Pleasure is the only intrinsic good and pain is the only intrinsic bad (Hedonism)

……Consequentialism (Mill's Utilitarianism)

- An act is morally right only if that act causes the greatest good for the greatest number (Act consequentialism plus Hedonism).

- What effect will my doing this act in this situation have on the general balance of good over evil? (Utilitarian ethicist)

    - Challenge of consequentialism: its insistence on the greater good of the most irrespective of the possible damage to the least (For instance, it seemingly demands (and thus, permits) that in certain circumstances innocents be killed, beaten, lied to, or deprived of material goods to produce greater benefits for others.)

Forms of Consequentialism

- Actual Consequentialism
- Direct Consequentialism
- Evaluative Consequentialism
- Hedonism
- Maximizing Consequentialism
- Aggregative Consequentialism
- Total Consequentialism

- Universal Consequentialism
- Equal Consideration
- Agent-neutrality
- Etc.

Deontology (Kantian Ethics)

- deontology derives from the Greek words for duty (*deon*)
- It is one of those normative theories regarding which choices are morally required, forbidden, or permitted
- It falls within the domain of moral theories
- deontological theories judge the morality of choices by criteria different from the states of affairs those choices bring about
- holds that some choices cannot be justified by their effects- no matter how good their consequences, some choices are morally forbidden

Deontology (Kantian Ethics) contd.

- agents cannot make certain wrongful choices even if by doing so the number of those exact kinds of wrongful choices will be minimized (because other agents will be prevented from engaging in similar choices)

- what makes a choice right is its conformity with a moral norm

- Right is said to have priority over the Good

- If an act is not in accord with the Right, it may not be undertaken, no matter the Good that it might produce....

Agent- Centred Deontological Theories

- Who is an Agent?

- We each have both permissions and obligations that give us agent-relative reasons for action.

- Agent relative obligation is an obligation for a particular agent to take or refrain from taking some action;

  - being agent relative, the obligation does not necessarily give anyone else reason to support that action.

  - E.g., Each parent, is commonly thought to have such special obligations to his/her child, obligations not shared by anyone else

Agent- Centred Deontological Theories contd.

- Morality is intensely personal- we are each enjoined to keep our own moral house in order
- Our categorical obligations are not to focus on how our actions cause or enable other agents to do evil;
  - the focus of our categorical obligations is to keep our own agency free of moral taint

Agent-centred theories are rights-based rather than duty-based

Patient-Centred Deontological Theories

- Who is a Patient in this theory?

- Patient-centred deontological theories are characterized as theories premised on people's rights

- A core right here is the right against being used <u>only</u> as means for producing good consequences without one's consent

  - ….a right against being used by another for the user's or others' benefit

  - this version of patient-centred deontological theories proscribes the *using* of another's body, labour, and talent without the latter's consent

Virtue (Aristotelian) Ethics

- Emphasis of virtue ethics is on the virtue or moral character-
    - someone in need should be helped because it is charitable or benevolent to do so;
- vs. a utilitarian who will point to the fact that the consequences of doing so will maximise well-being,
- or a deontologist who believes that doing so will be acting in accordance with a moral rule of "do unto others as you would have others do unto you"

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Virtue Ethics contd.

- Modern ethics emphasise the virtues themselves,
  - motives and moral character,
  - moral education,
  - moral wisdom or discernment,
  - friendship and family relationships,
  - a deep concept of happiness,
  - the role of the emotions in our moral life
  - the fundamentally important questions of what sort of person I should be and how we should live.

Virtue Ethics contd.

Virtue ethics take its roots from ancient Greek Philosophy by the employment of three derivative concepts

- Arệte (excellence or virtue): A virtue such as honesty or generosity is, indeed a character trait, a disposition which is well entrenched in its possessor, unlike a habit. The disposition is multi-track, concerned with many other actions:
    - emotions and emotional reactions,
    - choices,
    - values,
    - desires,
    - perceptions,
    - attitudes,
    - interests,
    - expectations and sensibilities.
        - To possess a virtue is to be a certain sort of person with a certain complex mind-set.

Virtue Ethics contd.

– Phronesis (practical or moral wisdom)
– Eudaimonia (translated as happiness of flourishing)
  - (Students are to read up the later 2in the light of Aristotelian ethics)

African Ethics…..

- The ethics of a society is embedded in the ideas and beliefs about what is right or wrong, what is a good or bad character;

- It is embedded in the conceptions of satisfactory social relations and attitudes held by the members of the society;

- It is embedded, in the forms or patterns of behaviour that are considered by the members of the society to bring about social harmony and cooperative living, justice and fairness.

…..African Ethics…..

- African societies, as highly organized and functioning communities, have evolved ethical systems -ethical values, principles, rules- that guide social and moral behaviour.

- African morality is founded on humanism, the doctrine that human interests and welfare as basic to the thought and action of the people

- This doctrine as understood in African moral thought has given rise to the communitarian ethos of the African society

- Ensuring the welfare and interests of each member of society can hardly be accomplished outside the communitarian society

…..African Ethics…..

- The communitarian ethos is also borne of beliefs about the natural sociality of the human being, expressed in the Akan maxim: "when a human being descends from the heavens, he descends into a human town"

- Social or community life is not optional to the human being in Africa.

- Social life, which follows upon natural sociality implicates the individual in a web of moral obligations, commitments, and duties to be fulfilled in pursuit of the common good or the general welfare

- African humanitarian ethics spawns social morality,
  - the morality of the common good
  - the morality of duty that is so comprehensive as to bring within its compass what are referred to as moral ideals (such as love, virtue, compassion)

….African Ethics.

- Character is central or basic to the African morality, for the success of the moral life is held to be a function of the quality of an individual's personal life
- A moral conception of personhood is held in African ethics,
  - the concept that there are certain moral norms and ideals to which the conduct of the individual human being ought to conform
- The recognition in the African ethical traditions of all human beings as brothers by reason of our common humanity must be cherished as a vital or robust feature of global ethics in our contemporary world.
  - Students are encouraged for find exceptions and discuss these
- It is a bulwark against developing bigoted attitudes toward peoples of different cultures who are, also, members of the universal human family