**1. Virtue Ethics**

* **Resurgence:** Virtue ethics re-emerged in the 1970s as a reaction against legalistic approaches to ethics.
* **Core Ideas:**
  + Emphasizes the exercise of judgment in making good decisions.
  + Argues that moral rules alone cannot solve real moral problems; they require judgment by virtuous individuals.
* **Aristotelian Approach:**
  + Divides virtues into intellectual virtues (e.g., wisdom) and moral virtues (e.g., self-control).
  + Virtue is achieved through practice.
  + A virtuous professional is considered a successful professional, and a virtuous life is a happy life.
* **Anthropocentric View:** Human beings are the measure of all things.
* **Key Principle:** Actions are right if carried out by a virtuous person or organization.
* **Practical Insight:** Ethics can be taught, but ethical conduct must be practiced.

**2. Egoism (Max Stirner, 1806-1856)**

* **Principles:**
  + Individualistic and self-centered.
  + Focus on self-satisfaction, not for others or God.
  + Environment and others are seen as resources for personal use.
* **Example:** A company prioritizes profits over environmental concerns, justifying pollution as necessary for business success.

**3. Humanism (16th-19th Centuries)**

* **Philosophers:** Montaigne, Descartes, Montesquieu, Rousseau, Constant, Tocqueville.
* **Three Principal Theses:**
  + Recognition of equal dignity of everyone.
  + Altruism: Elevating others' well-being.
  + Preference for freedom of action.
* **Principles:** Freedom should not infringe on others' dignity; autonomy is limited by community equality.
* **Example:** A business implements policies ensuring fair wages and safe working conditions for all employees.

**4. Relativism (Moral)**

* **Principles:**
  + Moral values are relative to specific environments and cultures.
  + Opposes absolutism, which asserts universal moral positions.
* **Example:** A company operating in multiple countries adapts its practices to align with local cultural norms, such as varying gift-giving customs.

**5. Eastern Philosophy**

* **Confucianism (551-479 BCE):** Focus on developing character, purity of heart, good conduct, and proper social relationships.
* **Buddhism (563-483 BCE):** Emphasizes the Four Noble Truths and the Noble Eightfold Path, focusing on right action and mindfulness.
* **Islam:** Stresses the highest ideals such as life, truth, justice, and love, guiding life in harmony with God's essence.
* **Example:** A multinational company adopts ethical guidelines inspired by Confucian values of honesty and righteousness.

**6. Practical Steps for Ethical Decision-Making**

1. **Legal Test:** Does the action violate the law?
2. **Duties Test:** Is the action contrary to widely accepted moral obligations (e.g., fidelity, gratitude, justice)?
3. **Consequences Test:** Is it likely that major damages will result from the action?
4. **Utilitarian Test:** Is there a satisfactory alternative that produces equal or greater benefits?
5. **Special Obligations Test:** Does the action violate special duties (e.g., consumer protection)?
6. **Motives Test:** Is the intent of the action harmful?
7. **Rights Test:** Does the action infringe upon the rights of consumers or stakeholders?
8. **Justice Test:** Does the action leave another person worse off?
9. **Sustainability Test:** Is the action sustainable, not negatively impacting future generations?

**1. Moral Reasoning**

* **Ethical Dilemmas:** Situations where moral reasons conflict or the application of moral values is unclear.
* **Moral Judgment:** The process of formulating the moral problem, identifying possible solutions, and ethically judging these solutions.

**2. Case Examples**

* **Case 1:** Designing uncomfortable chairs to discourage lingering in a cafeteria.
  + **Dilemma:** Balancing the comfort of employees with the management's desire to optimize space usage.
* **Case 2:** A project manager discovers faulty equipment and applies a violation tag. The boss orders its removal to avoid delays.
  + **Dilemma:** Ensuring safety versus meeting project deadlines.

**3. The Ethical Cycle (I. van de Poel and L. Royakkers, 2007)**

1. **Case Identification:** Understanding the situation.
2. **Moral Problem Statement:** Precise formulation of the ethical issue.
3. **Problem Analysis:** Identifying stakeholders, moral values, and relevant facts.
4. **Options for Action:** Listing all possible actions.
5. **Ethical Judgment:** Applying moral concepts, ethical theories, and frameworks.
6. **Reflection:** Reflecting on the ethical judgment.
7. **Morally Accepted Action:** Choosing the action to resolve the dilemma.

**4. Code of Ethics**

* **Purpose:** Engineers should maintain honesty, integrity, impartiality, fairness, and equity to protect public health, safety, and welfare.
* **Definition:** States the moral responsibilities of engineers as seen by the profession and professional societies.
* **Commitment:** Engineers commit to serving the public interest through their professional conduct.

**5. Roles of Codes of Ethics for Engineers (Schinzinger et al., 2010)**

1. **Serving and Protecting the Public:** Engineers have expertise that the public lacks, creating a fiduciary relationship based on trust.
2. **Guidance:** Codes articulate the main obligations of engineers.
3. **Inspiration:** Codes express a collective commitment to ethics, motivating ethical conduct.
4. **Shared Standards:** Establish explicit standards to ensure a standard of excellence and a fair competitive field.
5. **Support for Responsible Professionals:** Provides positive support for ethical actions.
6. **Education and Mutual Understanding:** Encourages a shared understanding of moral responsibilities.
7. **Deterrence and Discipline:** Serves as the basis for investigating unethical conduct.
8. **Contributing to the Profession’s Image:** Presents a positive image to the public, sustaining trust.

**6. Limitations of Codes**

* **Individual Responsibility:** Codes cannot replace personal responsibility in ethical dilemmas.
* **General Wording:** Codes may be vague, leaving areas of uncertainty.
* **Not Complete:** Codes are valuable guides but are not the final word on professional conduct.

**7. Practical Ethical Decision-Making Questions**

1. **Legal Test:** Does the action violate the law?
2. **Duties Test:** Is the action contrary to widely accepted moral obligations?
3. **Consequences Test:** Is major damage likely to result from the action?
4. **Utilitarian Test:** Is there an alternative action that produces equal or greater benefits?
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