

# PHILOSOPHY 105

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# GENETICALLY MODIFIED FOOD

# WHAT ARE GM FOODS?

*Genetically modified (GM) food derives from microorganisms, plants, or animals manipulated at the molecular level to have traits that farmers or consumers desire. These foods often have been produced using techniques in which “foreign” genes are inserted into the microorganisms, plants, or animals. Foreign genes are genes taken from sources other than the organism’s natural parents. In other words, genetically modified plants contain genes they would not have contained if researchers had only used traditional plant-breeding methods. (Comstock, 122)*

**WHEN GIVEN THE CHOICE, WOULD YOU PREFER NON GM FOOD?**

1. Yes
2. No

## TWO QUESTIONS

1. Is it ethically justifiable to pursue genetically modified crops and foods?
2. Should the law allow GM foods to be grown and marketed?

# THE METHOD - FIVE QUESTIONS

1. What is the harm envisaged?
2. What information do we have?
3. What are the options?
4. What ethical principles should guide us?
  - Utilitarianism
  - Rights theory (Kantianism)
  - Virtue theory
5. How do we reach moral closure?

# TWO KINDS OF OBJECTION

- Extrinsic objections
  - Hold that GM technology should not be pursued because of its anticipated results
    - May harm animals, humans, and ecosystems
      - But we can't determine whether these harms will occur without research and testing, which requires pursuing the creation of GM foods



- Intrinsic objections
  - Allege that GM foods are objectionable in and of themselves
  - All forms of the objection revolve around "unnaturalness"

# THE UNNATURALNESS OBJECTION

**UE:**

It is unnatural to genetically engineer plants, animals, and foods

## 1. TO ENGAGE IN AGRICULTURAL BIOTECH IS TO PLAY GOD

- Religious objections aren't enough since not all religions agree concerning the badness of "playing God"
- Do religious objections even belong in public policy deliberations?

## 2. TO ENGAGE IN AGRICULTURAL BIOTECH IS TO INVENT WORLD-CHANGING TECHNOLOGY

- It gives us power not previously had, but this isn't enough to show that it's wrong (compare other technologies)
- What about unintended consequences? Perhaps GM foods are more likely to have them than other kinds of inventions

### **3. TO ENGAGE IN AGRICULTURAL BIOTECH IS ILLEGITIMATELY TO CROSS SPECIES BOUNDARIES**

- Scientifically indefensible
- Not obviously offensive to religion

#### **4. TO ENGAGE IN AGRICULTURAL BIOTECH IS TO COMMODIFY LIFE**

- Not a sufficient objection, since we already commodify life, whether or not it is genetically modified

# BEING CAREFUL WITH GM FOODS - WHY DO WE DO IT?

- Two reasons explaining why we're cautious about GM foods
  - "Negative Information"
  - The "Precautionary Principle"

## THE PROBLEM OF "NEGATIVE INFORMATION"

*When faced with two contrasting opinions about issues related to food safety, consumers place great emphasis on negative information. The precautionary response is particularly strong when a consumer sees little to gain from a new food technology. When a given food is plentiful, it is rational to place extra weight on negative information about any particular piece of that food. It is rational to do so...even when the source of the negative information is known to be biased (491)*



1. We have nothing to gain from trying new food
2. "Food tainting": Under conditions of food plenty, rational consumers do and should take precautions, avoiding tainted food no matter how untrustworthy the tainted (491)

## THE PRECAUTIONARY PRINCIPLE

*as mad cow disease grips the European imagination, concerned observers transfer fears to genetically modified foods, advising: “Take precaution!” Is this a valuable observation that can guide specific public-policy decisions? Or is it well-intentioned but ultimately unhelpful advice? (Comstock, 135)*

The precautionary principle commits us to each of the following propositions:

1. We must not develop GM crops. (because they may lead to environmental degradation)
2. We must develop GM crops. (because they provide the best chance at food production under harsh conditions)

Since (1) and (2) are contradictory, we need an explanation of why the principle isn't incoherent, given it that its implications are

# RELIGIOUS OBJECTIONS

- The use of GM food may be rejected on religious grounds
- While religious objections should be tolerated and respected
  - they cannot trump other religions (no discrimination)
  - they cannot cause harm (the overridingness of ethical considerations)

# MINORITY OBJECTIONS

- Minority views should be respected/tolerated
- Cannot trump majority view if this leads to harms or a failure to optimize a state of affairs (other things being equal)
  - Exception if other things are *not* equal
    - e.g. Minority has a history of being subjugated or exploited

