

Friday April 15, 2011 Schedule for the Day

Am: Critical Reasoning

- Comment's on Tuesday's Assignment
- Discussion of Today's Assignment
- Workshop on new material: Evaluation of Arguments

Pm: Ethical Reasoning

- Review of Assignment submitted Tuesday
- New Material on Contractarianism

Comments on Critical Reasoning Assignment for Tuesday, April 12

Good on filling in the blanks and identifying simple patterns,
Problems with part C on deciding among various alternative reconstructions.

- B16. Every human action is determined by laws of nature. But for a person to deserve praise or blame, it is necessary for the person to have been able to act differently than he or she in fact did act. So no person deserves praise or blame

(1) Every human action is determined by laws of nature.

(2) If any person deserves praise or blame, then he or she can act differently than she in fact did.

(3) If every human action is determined by laws of nature, then a person cannot act differently than he or she in fact did. (IMPLICIT)

∴ No person deserves praise or blame.

“Necessary Condition”
If P, then D

“For P, necessarily D”
 $P \rightarrow D$

“D is a necessary condition for P”

Discussion of Chapter 3 Exercise 3.2 A2, A4, A6, A10 and B3

A2

I recognize, as do Roman Catholics generally, the great potential for human therapeutics in stem cell research. I do not oppose stem cell research per se if the cells are obtained from sources such as adult humans, miscarriages, or placental blood. What is morally unsustainable is the harvesting of stem cells by either of two currently proposed methods (1) the creation and destruction of human embryos at the blastocyst stage by removal of the inner cell mass or (2) the harvesting of primordial germ cells from aborted fetuses. Both cases involve complicity in the direct interruption of a human life, which Roman Catholics believe has a moral claim to protection from the first moments of conception. In both cases, a living member of the human species is intentionally terminated

Modus Ponens *(1) Human life has a moral claim to protection from the moment of conception.*
(2) If (1), then we shouldn't permit anything that does not protect life from the moment of conception (IMPLICIT?)

Predicate *(3) The harvesting of stem cells by either of the two currently proposed*
methods does not protect life from the moment of conception.

Instantiation

∴ We shouldn't permit harvesting of stem cells by either by the two currently proposed methods (IMPLICIT?)

A4 There is a continuity of development from the moment of conception on. There are constant changes in the foetal condition; the foetus is constantly acquiring new structures and characteristics, but there is no one stage which is radically different from any other. Since that is so, there is no one stage in the process of foetal development, after the moment of conception, which could plausibly be picked out as the moment at which the foetus becomes a living human being. The moment of conception is, however, different in this respect. It marks the beginning of this continuous process of development and introduces something new which is radically discontinuous with what has come before it. Therefore, the moment of conception, and only it, is a plausible candidate for being that moment at which the foetus becomes a living human being. **(Hint: Try using the implicit premise that either the fetus becomes human at the moment of conception or it becomes human at some moment thereafter.)**

A or B *(1) Either the fetus becomes human at the moment of conception, or it becomes human at some moment thereafter. (IMPLICIT)*

D *(2) There is a continuity of development from conception on.*

If D, then C *(3) If (2), then no stage is radically different.*

If C, then not B *(4) If no stage is radically different, then there is no stage after conception at which the fetus becomes human.*

∴ A ∴ *The fetus becomes human at the moment of conception.*

Reconstruction of A4 as an argument with subordinate conclusions

(1) There is a continuity of development from conception on.

(2) If (1), then no stage of development is radically different. (IMPLICIT)

∴ No stage of development is radically different. SUBORDINATE CONCLUSION)

(3) If no stage of development is radically different, then there is no stage after conception at which the fetus becomes human. (IMPLICIT)

∴ There is no stage after conception at which the fetus becomes human. (SUBORDINATE CONCLUSION)

(4) Either the fetus becomes human at the moment of conception or it becomes human at some stage after conception. (IMPLICIT)

∴ The fetus becomes human at the moment of conception.

A6 A. L. T. Allen has been thinking about inner-city crime and violence and family deterioration. She's read the politicians, the sociologists and the pundits. And she thinks everybody has it wrong. "... The emphasis has been on the African-American male"—as the missing father and as the perpetrator and victim of violence. Says Allen: "It occurs to me that perhaps we are focusing on the wrong group. Our efforts should be aimed at reaching not the males, but the females. . . As long as women tolerate this behavior in men, it will continue. As long as women continue to have relationships with, and continue to bear the children of, men who do not marry them, men will continue to be absent fathers."

(1) If women continue to bear the children of men who don't marry them, then men will continue to be absent fathers.

(2) If men continue to be absent fathers, then inner-city crime and violence and family deterioration will continue. (IMPLICIT)

(3) Inner-city crime and violence and family deterioration should not continue (IMPLICIT)

∴ Women should not continue to bear the children of men who don't marry them
SUBORDINATE CONCLUSION

(4) If women should not continue to bear the children of men who don't marry them, then our efforts should be aimed at persuading women not to tolerate this behavior in men.

(IMPLICIT)

∴ Our efforts should be aimed at persuading women not to tolerate this behavior in men.
(IMPLICIT ?)

The trouble with health care in America, says Muriel Gillick, a geriatrics expert at Harvard Medical School, is that people want to believe that “there is always a fix.” She argues that the way Medicare is organized encourages too many interventions towards the end of life that may extend the patient's lifespan only slightly, if at all, and can cause unnecessary suffering. It would often be better, she thinks, not to try so hard to eke out a few more hours or weeks but to concentrate on quality of life.

- (1) If health care practitioners try to extend the lifespan of patients as far as possible, then they will frequently cause unnecessary suffering while extending life only slightly.*
 - (2) Health care practitioners should not frequently cause unnecessary suffering while extending life only slightly. (IMPLICIT)*
 - (3) Either health care practitioners should try to extend the lifespan of patients as far as possible, or they should concentrate on quality of life of dying patients. (IMPLICIT)*
- ∴ Health care practitioners should concentrate on quality of life of dying patients*

Title: The First Amendment Unworthily Used...

Para 3: Denial of the museum funds, the lawyer said, is a First Amendment catastrophe. He likened it to a book burning, the destruction of free expression. The First Amendment prohibits Congress from abridging the freedom of speech.

Para 7: The same is true of the lawyer. The city has suppressed nothing. No paintings have been banned or burned. No one has been barred by law from seeing the exhibit.

Not B

(1) Denial of funds to the Brooklyn Museum of Art does not involve legal suppression— banning, burning, or barring access.

If A, then B

(2) If denial of funds to the Brooklyn Museum of Arts is contrary to first Amendment rights, then it involves legal suppression—banning, burning, barring access. (IMPLICIT)

∴ Not A

∴ Denial of funds to the Brooklyn Museum of Art is not contrary to first Amendment rights. (SUBORDINATE CONCLUSION)

Modus

Ponens

(3) If denial of funds to the Brooklyn Museum of Art is not contrary to the First Amendment rights, lawyers for the museum have unworthily used (misrepresented) the first Amendment. (IMPLICIT)

∴ Lawyers for the museum have unworthily used (misrepresented) the first Amendment

Para 4: the ideal relationship between the government and the arts is a hands-off policy, even if the government is paying part of the bill. Otherwise, the result is to have elected officials or bureaucrats deciding what is or isn't art, an assignment that they are rarely qualified to carry out.

(1) Government should keep "hands off" the arts (that is, government policy should not allow government officials or bureaucrats to decide what is or isn't art.)

(2) Denial of funds to the Brooklyn Museum of Art is not keeping "hands off" the arts (that is, it is a government policy that allows officials or bureaucrats to decide what is or is not art.)

∴ Government action should not deny funds to the Brooklyn Museum of Art.

What is the Pattern of this argument?

A modus tollens-like version of predicate

Instantiation

(1) All P_1 s are P_2 s.

(2) m is not a P_2 .

∴ m is not a P_1 .

Alternatively, here is a regular modus tollens version

(1) If NYC denial of funds to the Brooklyn Museum of Art is acceptable policy, then it avoids allowing government officials or bureaucrats to decide what is or isn't art.

(2) Denial of funds to the Brooklyn Museum of Art does not avoid having government officials or bureaucrats deciding what is or is not art.

∴ NYC denial of funds to the Brooklyn Museum of Art is not acceptable policy.

(Deductive) Argument Evaluation: What is a good (deductive) Argument?

A good (deductive) Argument is one in which the conclusion follows (logically) from the premises (i.e. is valid) AND the premises are true

A good (deductive) argument is called a **sound** Argument

Soundness = validity + truth of premises

Criteria for Soundness	Corresponding Criticisms
1. Conclusion follows from premises (Deductive Validity)	1. Show that conclusion doesn't follow from the premises
2. Premises are true	2. Show that premises are doubtful

Two Ways of Showing that the conclusion does not follow

Method 1: Find a Counterexample

In order to show that the conclusion of an argument **does not follow** from the premises, you should:

- 1) determine the pattern of the argument you wish to criticize, and
- 2) make up a new argument, with
 - a) the same pattern,
 - b) obviously true premises, and
 - c) an obviously false conclusion.

Sample: *Anyone who lives with a smoker has an above-average risk of heart disease. Sarah doesn't live with a smoker. So Sarah doesn't have an above-average risk of heart disease.*

All P_1 's are P_2 's.
Not the case that s is a P_1 .
 \therefore Not the case that s is a P_2 .

All residents of Seattle are residents of the US.
Obama is not a resident of Seattle.
 \therefore Obama is not a resident of the US.

Method 2: Describe an Invalidating Possible Situation

In order to show that the conclusion of an argument **does not follow** from the premises, you should:

Describe a possible situation in which the premises are obviously true and the conclusion is obviously false.

Sample: Anyone who lives with a smoker has an above-average risk of heart disease. Sarah doesn't live with a smoker. So Sarah doesn't have an above-average risk of heart disease.

Describing an invalidating situation (smoking is not the only risk factor)

Sarah lives by herself, has high blood-pressure, is obese, regularly eats, and comes from a family with a history of heart disease.

Some Ways to Cast Doubt on Premises

1. For a universal generalization of the form *All P1's are P2's* or *No P1's are P2's*, find a counter example.
2. For an if-then premise :Finding a clear case in which antecedent is true, consequent false
3. For any premise, point out further implications that are doubtful

Sample A: All swan's are white.



Australian Swans
are black.

Sample B: *If capital punishment is abolished, then the homicide rate will increase more rapidly.*

In the United States there is little connection between whether a state has capital punishment and the homicide rate. Some states with death penalties have high homicide rates, and some states without the death penalty have low homicide rates. This suggests that the existence or absence of the death penalty does not markedly affect the homicide rate. If so, then eliminating capital punishment is unlikely to increase the homicide rate. Furthermore, even if abolishing capital punishment did tend to increase the homicide rate, demographic factors such as a drop in the percentage of young males in the population could outweigh this tendency.

Sample C: All human action are performed for purely selfish reasons.

No heroic, saintly or altruistic actions are ever performed.

Sensible Use of Terms given Chapter 4 Terminology?

- | | |
|--|------------------|
| (a) <i>The argument you just gave is true,</i> | No, not sensible |
| (b) <i>Your conclusion is false,</i> | Yes, sensible |
| (c) <i>Your statement is invalid.</i> | Yes sensible |

Consistent Use of Terms (both parts can be true) given Chapter 4 Terminology?

- | | |
|--|------------------|
| (a). <i>Your argument is sound, but not valid</i> | No, Inconsistent |
| (b). <i>Your argument is valid, but not sound.</i> | Yes, Consistent |

A Glimpse of Chapter 5

<i>Symbol</i>	<i>Name</i>	<i>Example</i>	<i>Rough English Equivalent</i>
\neg	Negation	$\neg A$	It is not the case that A
$\&$	Conjunction	$A \& B$	A and B
\vee	Disjunction	$A \vee B$	Either A or B (or both) ²
\rightarrow	Conditional	$A \rightarrow B$	If A , then B
\leftrightarrow	Biconditional	$A \leftrightarrow B$	A if and only if B

<i>Modus Ponens</i>	<i>Modus Tollens</i>	<i>Disjunctive Argument</i>	<i>Hypothetical Argument</i>
$(1) A \rightarrow B$	$(1) A \rightarrow B$	$(1) A \vee B$	$(1) A \rightarrow B$
$(2) A$	$(2) \neg B$	$(2) \neg A$	$(2) B \rightarrow C$
$\therefore B$	$\therefore \neg A$	$\therefore B$	$\therefore A \rightarrow C$

1. The United States will continue to delay significant steps to reduce greenhouse gas emissions. **A**
2. If the United States will continue to delay significant steps to reduce greenhouse gas emissions, then global warming will produce irreversible degradation of the environment. **$A \rightarrow B$**
3. If the United States will continue to delay significant steps to reduce greenhouse gas emissions, then the United States will face frequent, massive destruction from violent weather. **$A \rightarrow B$**
4. Either the United States will not continue to delay significant steps to reduce greenhouse gas emissions, or it will face frequent massive destruction from violent weather. **$A \vee B$**
5. If the United States will continue to delay significant steps to reduce greenhouse gas emissions, then either we must be willing to pay vast sums to repair destruction from violent weather or we must be prepared to live with the damage. **$A \rightarrow (B \vee C)$**
6. The United States will continue to delay significant steps to reduce greenhouse gas emissions, and vast sums will be needed to repair destruction from violent weather. **$A \& B$**

If we don't limit carbon emissions, then either we will face massive future costs to handle extreme climate or extreme alteration in our life style

$$\neg A \rightarrow (B \vee C)$$

An action is morally right if and only if it is in the actor's self interest exclusively.

$$A \leftrightarrow B$$

Alternatively: $(A \rightarrow B) \& (B \rightarrow A)$

That's All Folks