

## Critical Reasoning/ Intelligent Design II WS 8-1 May 20 , 2008

- I. A. **(Individual)** review the answers for the assignment Answers at End  
B . **(In small group)** discuss any items that you found difficult  
C. **Plenary**

### II Brief Review of empirical theories .

III. A. You were asked to bring at least one selection from the Web about Intelligent Design (pro or con) that you found useful or provocative

**(In small group)**

- (1) Inventory the selections about intelligent design (ID) each member of your small group brought to class by briefly discussing its content and perspective.
- (2) Use this material, as well as the readings from last week to characterize the argument offered in the selection
- (3) Evaluate the arguments the techniques discussed in the critical reasoning text.
- (4) Evaluate ID as a scientific theory using any additional considerations you find relevant. Be prepared to present your assessment to the class as a whole.

**B.Plenary.** Discuss each groups findings.

C. You were also asked to bring one or two more web selections about the policy/legal debate over teaching Intelligent Design in K-12 classes, especially science classes.

**(In small group)**

- (1) Inventory the selections about teaching intelligent design (ID) or more broadly teaching the controversy that each member of your small group brought to class by briefly discussing its content and perspective.
- (2) Discuss arguments used by proponents of ID to justify their claim that it should be included in the (public) school science curriculum or at least that teachers should be allowed to teach the controversy in science classes. Evaluate them using techniques of critical reasoning
- (3) Discuss any other issues raised by the ID movement and the arguments used to support it.
- (4) Pick the one or two arguments you found most interesting and be prepared to present them to the class as a whole.

**D. Plenary.** Discuss each groups findings.



**Assignment for Friday May 23 morning session.** Read C&P Ch. 9 (on arguments from analogy and convergent arguments) as well as Ch. 11 on the Six-Step procedure. **For the afternoon Session Bring** two or three selections from the web that present arguments about global warming and its policy implications. (You should try to find at least one argument on each side of the issue). Be prepared to present and evaluate these arguments first in small group and after further discussion possibly to the class as a whole. Some basic links to web sites can be found on our program Links page.

**Answers to Assignment for today** Check your own assignment. Put a check ✓ next to answers that are similar, an X next ones that miss the mark, and a question mark ? next to any that are problematic

**Exercise 10.3 #1 b,d; #2 b , d**

- 1b. (i) Theory: Every animal that ever lived was created during creation week.  
(ii) Criticism: Fossil evidence shows that different species have existed at different times.  
(iii) Defense: Some of the animals that were created during creation week (such as dinosaurs) died off after the flood.  
(iv) The defense conveniently selects for discussion an early species that dies off rather than a species that emerges later. There is an element of the defense that is *ad hoc*: Part of the initial theory is that every single species was carefully saved from the flood on the Ark. But the defense against damaging evidence is that some species were allowed to perish later. This hypothesis of a shift in attitude on the part of the creator toward the species that were created seems motivated solely by the need to avoid the damaging evidence.
- 1d (i) Theory: Creationism. (The earth was created by God a relatively short time ago.)  
(ii) Criticism: Radioisotope dating suggests the earth is very old.  
(iii) Defense: Add to creationism the following items: radioisotope decay has not been constant, samples of decay products tested may be systematically contaminated by extra portions of that from which they decayed (the parent) or extra portions of decay product itself (the daughter), and God might have created the misleading array of radioisotopes.  
(iv) The defense seems *ad hoc*, especially the last item. It is unrealistic to believe that the effect of contamination would systematically correlate with dating determined by other means such as historical records and tree rings. Why should we assume that
- 2b There are practical difficulties with testing this theory in that it asserts that politicians are corrupt even if they appear virtuous to their friends and think themselves virtuous. Corruption couldn't be tested through interviewing acquaintances. Furthermore, it would be difficult to arrange for great temptation to be presented to politicians without their knowing that they were being tested and observed. Even if this could be done, it would be difficult to know whether the temptation was great enough to reveal corruption.
- 2d. We could judge in a number of ways whether people are unhappy. A simple scale on which people mark their own assessment of relative happiness or unhappiness would be one method, or we could use observational data such as time spent frowning, crying, complaining, reports of feeling depressed, etc. We could also study a variety of groups and determine whether there is a tendency for unhappy people to be concentrated within groups or spread out among groups. There might be some difficulty in determining whether it was mutual unhappiness that drew people together or whether unhappy people tend to make those around them unhappy also.

**Exercise 10.4 #2, (#3 or #4)**

**Passage 2**

Theory: (Booth and Johnson) People who cohabit before marriage tend to bring with them problems and traits that have a negative effect on marriage. (Drugs, money, legal issues, unemployment problems; risk taking; parental disapproval; lesser commitment to marriage.)

(Thompson and Collela) Additionally, cohabiting before marriage weakens commitment by showing that there are reasonable (individualistic) alternatives to marriage Regularities: Those who cohabited before marriage are less supportive, more inclined to disagree, and more likely to divorce Dissatisfaction with marriage increases with length of time a couple lived together before the divorce.

### Sample Criticisms

*(Alternative theory)* Some version of the Booth and Johnson theory might be offered as an alternative to Thompson and Collela, as opposed to seeing the two theories as supplementing each other. That is, the kinds of people who would be willing cohabit before getting married could be seen as different, less conventional people to begin with, having less of success in their marriage. By contrast, Thompson and Collela are suggesting that the process of cohabiting itself weakens commitment to marriage. A variation of the idea that people who cohabit are different to begin with would be the view that such people are more likely to acknowledge trouble in their marriage than people who did not cohabit before marriage..This could explain the reports of lack of support, disagreement, and dissatisfaction in marriage.

Another alternative theory would be that a significant number of couples who first cohabited and then married made the decision to marry along with the decision to have children. Their dissatisfaction might be with being together and having children rather than with being married.

*(Doubtful Prediction)* If the Booth/Johnson theory and/or the Thompson/Collella theory is true, then researchers will find that prior cohabitation is related to dissatisfaction in marriage regardless of whether the married couples have children.

### **Passage 3:**

Theory: (International) politics is becoming feminized.

Regularity: Countries are becoming less inclined to use power around the world as freely as they have.

Sample Criticism: *(Alternative Theory)* The treat of nuclear weapons (and, more recently chemical and biological weapons) has made wide-scale military action more risky. The failure of the United States in Vietnam and Russia in Afghanistan have weakened resolve. The civil and ethnic conflicts around the world are difficult and dangerous to settle, and hence make the larger nations increasing reluctant to intervene.

*(Doubtful Prediction)* The United States will be less likely to go to war. The war in Afghanistan and Iraq indicate that the U.S. is still willing to fight a war even though there are more women in the military and in important high positions in government.

### **Passage 4:**

Theory:: Ancient astronauts visited the earth.

Regularities: Religious document refer to gods from space. There are wondrous technical artifacts from various ancient cultures. (Note: The theory explains by pointing out that documents refer to real ancient astronauts that visited the earth. Astronauts are also the source of the wondrous artifacts. The regularities are supported by numerous particular observations

Sample Criticism:

(1) *(Alternative Theory)* Many natural phenomena produce massive irregularities. The San Andreas fault in California produces long “lines” in the surface of the earth (as seen from a high vantage point).This might account for some of the so-called wondrous artifacts. Also, primitive societies have carried out very elaborate projects.

(2) *( Doubtful Prediction)* If a superior civilization has visited the earth, then we would expect continued contact. There is little evidence that these ancient astronauts are around now.