Thinking Straight Critical Reasoning Workshop 4-1 (April 19, 2011)

I   A. (Individually) follow the powerpoint review of the answers for today's assignment from Chapter 4. Put a check √ against largely correct answers, an X   against largely wrong answers and a question part ? if you aren't sure

   B. In small group

   Pick one of the short "letters to the editor" (items 3, 4 and 5) from the workshop that were also part of the assignment and develop a reconstruction and criticism that reflects the groups discussion. We will then decide which, if any, reconstructions to put on the board.

   C. Plenary discussion of reconstructions and criticisms of letters to the editor.

II   Distraction Fallacies

   A. The text distinguishes three types of distraction fallacies: **False dilemma**, **slippery slope** and **straw man**, **In pairs,** try to define or describe each fallacy discuss in turn. Pay particular attention to the distinction between false dilemma and straw man. Discuss which fallacies are found in the following passages and how the tend to persuade.

   1.You're either part of the solution or part of the problem.

   2. In the early stages the compulsive gambler doesn't behave differently from the casual gambler. He plays a little poker on Friday night; he bets on the Sunday football games. Slowly, he begins to bet more. Winning becomes the high point of his week. A loss means several days of depression. Finally, he runs out of his own money and is forced to get it any way he can. He begs, borrows, and ultimately steals. Beware! That first flip of the coin can spell disaster.

   3. I'm in favor of legalized gambling. There are those who oppose it, but they apparently think that anything that's fun is sinful.

   4. If you're not going to save a lot of money on fuel, then you might as well not waste the effort. Putting weather stripping around your doors doesn't save you that much.

   B. Plenary

III. Resemblance Fallacies

   A. The text distinguishes four types of resemblance fallacies: a**ffirming the consequent, denying the antecedent**, **begging the question** and **equivocation In small group** try to define or describe each fallacy discuss in turn. Pay particular attention to equivocation and begging the question Discuss which fallacies are found in the following passages and how the tend to persuade.

   1 If Alvin really loved Alice, then he would have given up his evil ways. He does seem to have reformed—he's even quit hanging out in bars and doing drugs. He must really love Alice.

   2 Callous though it sounds, I do not believe we have an obligation to redistribute wealth to the less fortunate. The reason that I believe this is that what a person earns is rightfully hers. No one else has a claim to it.

   3 It won't be dangerous to ride with Gary, because he hasn't been drinking. If he had been drinking, it would be dangerous
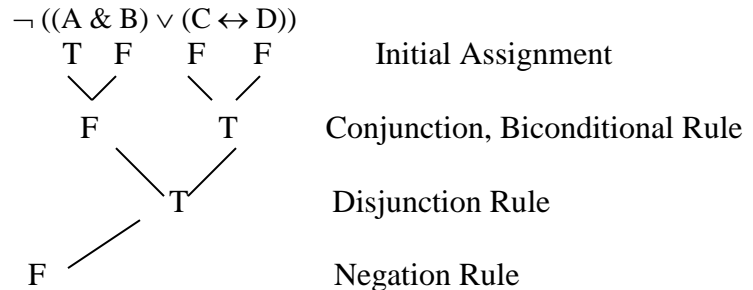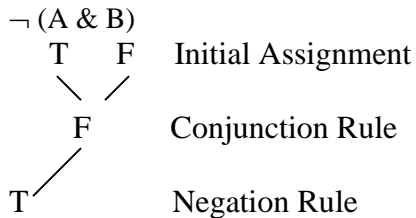
IV More formal approach to validity (Time Permitting)
DEFINITION OF THE CONNECTIVES

Possible Situations		Conjunction	Disjunction	Conditional	Biconditional		Negation	
Row	$\square$ $\triangle$	$\square$ & $\triangle$	$\square \vee \triangle$	$\square \to \triangle$	$\square \leftrightarrow \triangle$	Row $\square$	$\neg \square$
1	T T	T	T	T	T	1 T	F
2	T F	F	T	F	F	2 F	T
3	F T	F	T	T	F		
4	F F	F	F	T	T		

Sample A   Sample B

¬ (A & B)   ¬ ((A & B) ∨ (C ↔ D))

    T   F   Initial Assignment   T F   F   F   Initial Assignment

        F   Conjunction Rule   F   T   Conjunction, Biconditional Rule

    T   Negation Rule   T   Disjunction Rule

                                                F   Negation Rule

1 .Assume the following initial assignment of truth values to the statements: A is T(rue), B is F(alse). Use the techniques of evaluation listed above to evaluate the truth value of the following compound statements. Be sure to list the appropriate row and connective to justify each step in the evaluation

  a.   A → ¬ B
  b. ¬ B →   A

2. Assume the following initial assignment of truth values to the statements: A is F(alse), B is T(rue), C is F(alse). Create evaluation diagrams for the following compound statements. (You don't need to list a justification for each step, but you should note to yourself how the definitions apply to each move you make.)
  a.   A → (B ∨   C)
  b.   (A ∨ B) →   C

IV USING TRUTH TABLES TO DETERMINE VALIDITY OF ARGUMENTS

Individually: 1. Complete the table below to show whether the argument represented is valid or invalid

Initial Assignments		*Evaluation of Statements for These Assignments*		
Possible Situations		Premises		Conclusion
A	*B*	*A ∨ B*	*B*	*¬ A*
1 T	T			
2 T	F			
3 F	T			
4 F	F			

2. Use a truth table to determine whether the following argument is valid or invalid
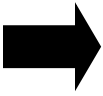
(1) Either A or B
∴ If not A, then B

Initial Assignments		Evaluation of Statements for These Assignments	
Possible Situations		Premise	Conclusion
A	B	$A \vee B$	$\neg A \rightarrow B$
1 T	T		
2 T	F		
3 F	T		
4 F	F		

(1) If A, then B
(2) If B, then C
(3) Not A
∴ C

(Individually) Fill in the following table for a three premise argument with three separate statement letters (hence $2^3 = 8$ possible situations) Use the truth table method to determine whether an argument of the following form is deductively valid

Initial Assignments				Premises			Conclusion
A	B	C		$A \rightarrow B$	$B \rightarrow C$	$\neg A$	C
1 T	T	T					
2 T	T	F					
3 T	F	T					
4 T	F	F					
5 F	T	T					
6 F	T	F					
7 F	F	T					
8 F	F	F					

➡ **Assignment for Friday April 22: Read**: Ch 5 pp. 130-136 on Venn diagrams and validity of arguments with quantifiers**.,** Ch. 6 pp 159-173 on fallacies of emotion as well as emotion and resemblance combined and chapter 7 to p. 186. **Submit:**; **Exercise 4.4** A #2,#4,#6, #8,#10, B2 **Exercise 6.1** A4, A6, A8; **Exercise 5.2** A2, A8; B1, B2, B4, B6, B8

Note that your **Portfolio is now due Tuesday April 26** and should containing at least five (5) items (editorials, letters to editor, opinion pieces, short internet selection, short section from book or longer article, etc); for at least two (2) reconstruct an argument into standard form (with missing, implicit premises or conclusion supplied if necessary); evaluate at least one (1) of those you reconstructed by indicating whether it is valid (using common successful argument patterns or the methods of chapter 4 or 5) and if so whether it is sound by casting doubt, if appropriate, on the premises.