Philosophy 101

(2/8/11)

• By now, you should have read all of Chapter 2 (carefully!). And, you should have started your reading of chapter 3 as well.

• **HW #1 returned today (last 5 mins)**.
  • Solutions posted — more on this below (study them!).

•**HW #2 has been posted**. **Don't wait 'til last minute!**

• **Our first quiz is *Thursday***. More on this below, too.

• **I've posted a handout** on "3 Causes of *Ir*rational Belief".

• Today: finishing-up Chapter 2, and starting Chapter 3
  • **Rationality, Relativity, and Objectivity**
  • ***Chapter 3* — Well-Formed Arguments**

HW #1 — Solutions & Discussion

• I have posted my ("ideal") solutions to HW #1. Comments:
  • **Study my solutions carefully!** Only come to me with questions about HW's *after* you have studied my solutions.
  • **I graded this first HW *leniently***. As the semester progresses, *I will expect more* from your HW's (and quizzes).
  •**Please type-up your solutions to future HW's.**
  • (1) The main point of this exercise was to illustrate that *one must be careful & clear about what an author's argument* ***is***.
    • Also, *literary* aspects of the passage are *irrelevant* here.
  • (2) The *rhetorical power* of an argumentative *passage is audience relative*. The *rational strength* of an *argument* is ***not***.
  • (3) The literary merit of a *passage* is *not* ***at all*** *relevant* to the rational strength of the argument(s) it contains.
  • (4) Impediments to "arguing", *etc.*, are *not* relevant here. We are only concerned with impediments to *reasoning*.
  • (5) *Goals vs means/methods* of rational argument analysis.

Quiz #1 — Some Remarks

• Our first quiz in on Thursday (in class — last 30 minutes).

• You will need to bring (i) a writing implement, and (ii) several blank pages of paper on which to write your short answers.

• The quiz will have two sorts of questions:
  1. Fill-in-the-blank questions involving vocabulary from chapters 1 & 2 of the text.
  2. Short answer questions from chapters 1 & 2 of the text.

• The fill-in-the-blank questions will be answered on the quiz sheet itself. Short answers will be written on separate paper.

• If you have read the first two chapters of the text (well), followed my lectures, and also worked the exercises in the text, then you should have no problem with the quizzes (generally).

One more announcement…

Participate in experiments & earn cash!

We are a Rutgers University research group looking for **undergraduates 18 or older** to participate in studies on decision-making. The studies take place on College Avenue Campus in Scott Hall (Room 107). You receive a $5 show-up payment, plus an additional payment that depends on the details of the particular experiment. You are paid cash at the end.

If you would like to register to be contacted about experiments, please go to the following website to register:

http://rutgers-econ.sona-systems.com

Rational Belief XXVI

- **Rationality, Relativity, and Objectivity**
  - The *truth* of a person's belief is *not relative* — that is, a proposition/belief can't have *one truth-value* for one person, and a *different truth-value* for another person.

  - But, the *rationality* of a belief *can* vary from person to person, *because different people can have different evidence*.

Example 2.6

You are on a jury hearing the case of Heza Thief, who is accused of robbing a bank. The evidence presented against Thief isn't very convincing. One witness tentatively identifies him as the robber but admits under cross-examination that he didn't get a very good look at the robber. Other seemingly honest witnesses report that Thief was with them at the time of the robbery, thus providing him with an alibi. No fingerprints, suspicious financial dealings, or past record is brought up to indicate his guilt. In fact, however, Thief is guilty. His witnesses were paid off to support his alibi and the police have done a bad job investigating this case.

Rational Belief XXVII

- **Rationality, Relativity, and Objectivity**
  - Consider the following proposition:

    - Heza Thief robbed the bank.

  - In this case, ***your*** evidence does ***not*** support this proposition. So, it is ***not*** rational for ***you*** to believe it.

  - But, consider whether it would be rational for ***Heza himself*** to believe this proposition. Suppose he vividly and clearly *remembers* robbing the bank, *etc.*

  - Here, it ***is*** rational for ***Heza*** to believe that he robbed the bank, while it is ***not*** rational for ***you*** to believe this.

  - In this sense, *rationality is relative to the total evidence available.*

Rational Belief XXVIII

- **Rationality, Relativity, and Objectivity**

  - Remember back to our example of the proposition:

    - The earth is flat.

  - At one time, *almost everybody* believed that this proposition was true. Nowadays, *almost nobody* believes this.

  - While the claim is (in fact) *false*, this does *not* prevent both sets of beliefs from being *rational*. This is because:

    - The evidence available at that time supported the claim that the earth was flat. But, since then, we have obtained ***new evidence*** which *overturns* that verdict, and supports the *falsity* of the claim. So, *both sets of beliefs are rational.*

Rational Belief XXIX

- **Rationality, Relativity, and Objectivity**

  - It is important to note, however, that it is ***not "up to us"*** what our total evidence is, or what it supports.

  - We can be ***wrong*** about what our total evidence is, and we can also be wrong about what it supports.
    - See my handout on "3 causes of irrational belief".

  - So, while the rationality of S's *beliefs* is relative to the total evidence *S* has and what that evidence supports. This does *not* depend on what *S thinks* about her evidence. Contrast:
    - *S*'s total evidence (in fact) supports *p*.
    - *S believes* that his total evidence supports *p*.

  - These two claims are *distinct*, and *must not be conflated*.

Three Chapter 2 Questions for Discussion

***3.** Discuss the following objection to principle (RB). A person who is shipwrecked on a deserted island has a much better chance of surviving if he believes that he will be rescued than if he doesn't. The belief will give him the strength and motivation to do what he must to stay alive, and this will give him a better chance of living until help arrives. As a result, it surely is rational for him to believe that he will survive, even if he doesn't have any evidence supporting that belief. So (RB) is wrong.

***5.** Discuss the following objection to (BP).

I know that I like peach pie, I don't merely believe that I like it. Thus, the proposition "I like peach pie" is one that I neither believe nor disbelieve nor suspend judgment about. So it is an exception to (BP).

***5.** Does the truth value of this proposition depend on what people think about the topic?

Nearly everybody believes that the earth is round

Chapter 3: Well-Formed Arguments I

- **The Standard Form Representation of Arguments**

•Argumentative passages are often rather *messy*.

➡ They may contain various things that are *not relevant* (*i.e., not really part of*) the argument(s) expressed in the passage.

- The first thing we need to do is *state in very clear and precise language what the premises and conclusion of the argument are.*

- Part of what "clear and precise statement" means has to do with the *logical structure* (and logical form) of the argument.

- We will write arguments in *standard form*, which consists of a numbered list of premises, followed by a horizontal line, and then the conclusion (carrying on the numbering from above).

- Getting an argument into standard from is non-trivial…

Chapter 3: Well-Formed Arguments II

- **The Standard Form Representation of Arguments**

1. First premise
2. Second premise
3. Third premise

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4. Conclusion

- Note: there can be any number of premises in an argument.

- 4 main reasons for putting arguments in standard form:
  - (1) Placing the argument in standard form allows us to eliminate irrelevant or redundant statements from the argument. Such irrelevancies and redundancies become more salient, once we get in the habit of working in standard form.

Chapter 3: Well-Formed Arguments III

- **The Standard Form Representation of Arguments**

- (2) Sometimes authors of argumentative passages *omit* certain assumptions/premises. We must *make all premises/assumptions explicit in our reconstructions*. By placing arguments in standard form, it will be easier for us to spot such *missing material*.

- (3) Sometimes authors of passages will use obscure, misleading, or imprecise language. Rewriting arguments in standard form also involves *making all language clear and precise*. We must be clear about *which propositions are in the argument*.

- (4) Once we have an argument written out in clear, precise, standard form, we can then easily refer to the various premises (and the conclusion) of the argument *via* their *number labels*.

Chapter 3: Well-Formed Arguments IV

• **The Steps of Argument Analysis**
• Remember, there are two main steps of argument analysis:
• (1) **Reconstruction**. This involves transforming the argument(s) expressed in the passage into *standard form*.

• (2) **Evaluation**. Determining *the degree to which the premises of the reconstructed argument support its conclusion*.

• It may seem like (1) and (2) are performed (neatly) *in order*. Actually, the process involves feedback between (1) and (2).

• Our goal is to extract the ***best*** argument we can from an argumentative passage (we'll return to this in Ch. 5).

• As a result, we'll need to be thinking hard about step (2) ***while*** we are trying to accomplish step (1).

Chapter 3: Well-Formed Arguments V

• **Evaluating Arguments: An Introduction**
• Because step (2) is so central to obtaining good (and charitable) reconstructions of arguments, we'll actually need to say *something* about *evaluation before* getting into *reconstruction*.

• To this end, consider the following (brief) example.

Example 3.1

Legal Eyes is in favor of legalizing possession and use of drugs. He reasons, "Drugs should be legal. After all, those who use drugs harm only themselves."

• What is the *conclusion* of this (brief) argument?

• What are its *premises*?

Chapter 3: Well-Formed Arguments VI

• **Evaluating Arguments: An Introduction**
• As a first pass, this argument has the following *standard form*:

1. Drugs only hurt those who use them.

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2. (Therefore,) Drugs should be legal.

• In order to evaluate the strength of this argument, we need (first) to forget our own attitude(s) toward the conclusion.

• What we're after is an assessment of *the strength of* ***this particular argument*** *for the legalization of drugs*.

• It doesn't matter what *other* arguments there may or may not be for (or against) this conclusion. They are ***irrelevant*** to the assessment of the strength of ***this*** argument.

Chapter 3: Well-Formed Arguments VII

• **Evaluating Arguments: An Introduction**
• There are ***only two*** sorts of questions that ***are relevant*** regarding the assessment of the strength of an argument.

• Are the premises of the argument *true*?
• Is the conclusion *supported by* the premises (***if*** true)?

• That is, there are ***only two*** legitimate ways to *criticize* an argument (*i.e.*, to try to show it is not as strong is it could be).

• Show that *some of the premises are false*.
• Show that *the conclusion is not supported by the premises*.
  • Note: *reasons to think the conclusion is false are* ***irrelevant***!

• Let's now return to our (simple) example of the 1-premise argument for the conclusion that drugs should be legal.

Chapter 3: Well-Formed Arguments VIII

- **Evaluating Arguments: An Introduction**

Critic 1: It is true that drugs hurt only those who use them. But this does not show that they should be legal. Sometimes people have to be protected from their own foolishness and mistakes. This may be a case in which it's the job of the government to make it harder for people to harm themselves.

- Which of the two sorts of (potentially relevant) criticisms is *this*?

Critic 2: If it were true that drugs hurt only those who use them, then I'd accept your argument. But it is not true. When pregnant women use drugs, they hurt their unborn children. When parents use them, they often become less responsible and caring parents and so they hurt their children. Some people who use drugs become violent and harm their spouses or others with whom they come into contact. So, drugs don't hurt only drug users.

- Which of the two sorts of (potentially relevant) criticisms is *this*?

Chapter 3: Well-Formed Arguments IX

- **Evaluating Arguments: An Introduction**

- **Critic 1** *believes* the premise of the argument, but *disbelieves* that the premise supports the conclusion (*even* ***if*** it were true).

- **Critic 2** *believes* that the premise of the argument supports its conclusion (***if*** true), but *disbelieves* that the premise ***is*** *true*.

- Each critic *provides an argument against* the claim they *disbelieve*, but *no* argument *for* the claims they *believe* (*i.e.*, they only give arguments *for their criticisms* of the argument).

➡ Note how carefully analyzing *one* argument (**A**) can ultimately involve analyzing *many* arguments that pertain to the two considerations that are relevant to the strength of argument (**A**). [This is one reason why argument analysis is subtle.]

Chapter 3: Well-Formed Arguments X

- **Evaluating Arguments: An Introduction**

- Here are two more introductory examples to discuss…

Example 3.2

Connie and Diane are discussing the recent student elections. They want to know whether Boris voted. Connie reasons as follows: "Boris is a responsible student. So he must have voted." Diane replies, "I agree with you about Boris's being responsible, but it just doesn't follow that he voted. He might have been sick or out of town or too busy. We can't conclude that he voted."

Example 3.3

Daniel and Anders are wondering how cold it is outside. Daniel looks outside and sees that the water on a nearby pond is frozen. He then argues: "The water in that pond is frozen. Water freezes at 0 degrees Fahrenheit. So it must be 0 degrees Fahrenheit or lower outside." Anders might reply, "That would be a good argument if you were right about the freezing point of water, but water freezes at 32 degrees Fahrenheit, not 0 degrees Fahrenheit."

Chapter 3: Well-Formed Arguments XI

- **Well-Formed Arguments**
- If the conclusion of an argument *follows from* its premises (*i.e.*, if the conclusion *would be supported by the premises* ***if*** *the they were true*), then we say that the argument is ***well-formed***.

- An argument's being well-formed involves a ***logical*** relation between the premises and conclusion of the argument.

- There are two types of well-formed arguments:

  - **Valid arguments**. These are arguments such that *the truth of their premises* ***guarantees*** *the truth of their conclusion*.

  - **Cogent arguments**. These are such that *the truth of their premises makes the truth of their conclusion* ***probable*** (but *does not guarantee* the truth of their conclusion).

Chapter 3: Well-Formed Arguments XII

• **Well-Formed Arguments**

• We will study *valid* arguments first, and (merely) cogent arguments later. Valid arguments are easier to characterize.

• Here is a *preliminary definition* of validity:

• **D3.1**: An argument is *valid* (*aka deductively valid*) if and only if (iff) *it is (**logically**) impossible for all the premises of the argument to be true while the conclusion of the argument is false*.

• In order to properly understand the meaning of this definition, we need to say what "logically impossible" *means*.

• To say that a statement is logically impossible is to say something *stronger* than that it is (*merely*) *physically* impossible (or *even mathematically* impossible). Here are some examples…

Chapter 3: Well-Formed Arguments XIII

• **Well-Formed Arguments**

• Some propositions are *actually* true (Snow is white), and some are *not* (Al Gore is President of the United States in 2007).

• Other propositions are *not actually* true, but *still possibly* true.
  • Al Gore is *not actually* our President in 2007, but he *might have been*—it is *possibly true* that Al Gore is President in 2007.

• Some propositions are *not even **possibly** true*. For instance:
  • (1) My car has traveled faster than the speed of light.
  • (2) 2 + 2 = 5.
  • (3) Branden weighs 200lbs ***and*** Branden does ***not*** weigh 200lbs.

• (1) violates the laws of physics: it is ***physically*** *impossible*. (2) violates the laws of arithmetic: it is ***arithmetically*** impossible.
➡ (3) violates the laws of ***logic***: it is ***logically*** impossible.