

Session 2 - Critical Thinking Skills

9/21/18

1. Critical Thinking

a. Intro

- i. The best way to think of philosophy is **rigorous thinking**. Being able to think and **reason well**.
- ii. Philosophy is the 'mother of the sciences'.
- iii. That's why, even in the hard sciences, the highest degree is a PhD.
- iv. What does the 'Ph' stand for?
- v. CS Lewis said: "Good **philosophy** must exist, if for no other reason, because **bad philosophy** needs to be answered."
- vi. Good philosophical thinking prepares us to be able to handle and accept theological truth.

b. Fallacies

- i. **Logical Fallacy** – An error in reasoning or an error in logic. If we can identify flawed thinking, it will be an important step in being able to think and communicate well.
- ii. **Argument** – *A line of reason or form of reasoning that often has the form:*
 - a. *Two statements*
 - b. *A conclusion*
 - **Example A:**
 1. *When I watch a documentary I always learn something.*
 2. *I watched a documentary last night.*
 3. *Therefore I learned something last night.*
 - **Example B:**
 1. *Organisms vary based on their genetics.*
 2. *These variations can affect survivability.*
 3. *Therefore, some organisms will survive better than others.*
 - **Example C:**
 1. *A breeder breeding a small dog into a larger, different dog would be an example of evolution.*
 2. *Dog breeders do, in fact, change dog breeds routinely.*
 3. *Therefore, evolution is a fact.*

(equivocation: when we use a term (like 'evolution') in different ways - micro/macro). Using it in an argument is used in an ambiguous way.
 - **Example D:**
 1. *If macroevolution is true, we would see a variety of life forms.*
 2. *We see a variety of life forms.*
 3. *Therefore, macroevolution is true. (syll., but flawed - confirming the consequent)*

- iii. We'll cover just a few of the more common biases and fallacies, there are over a hundred. These are some of the most important ones.
- iv. **Bias** – A preconceived notion for or against a certain idea or person.
 - We want to identify biases in others, but we've got to remember that we've got them too.
 - **Political, age, social** biases
 - **Focus on Religious** biases (for/against or toward a particular religion)
 - Biases are not necessarily bad.
 - a. I have a bias toward being conservative rather than liberal.
 - b. I have a bias toward theism in general and Christianity in particular rather than toward a different religion or atheism.
 - The important points are that I'm aware of my bias and that I have beliefs for my bias that reasonably support the position.
 - The reason for biases can even change over time.
 - Types(examples):
 - a. **Anchoring bias** (letting early information influence later data) being 'born into' theism/atheism
 - b. **Bandwagon bias** (tending to agree with what others are saying – line length example) gender issues, abortion
 - c. **Bias blind spot** (Who thinks their closer to biased than unbiased?) Thinking that you're less biased than other people, seeing biases in others, but not in yourself.
 - d. **Confirmation bias**
 - i. A willingness to not question evidence that confirms what we want to be true.
 - ii. Also called 'selective perception'
 - iii. May just remember the confirming information more and quickly forget non-confirming info.
 - iv. Try to resist being fooled by the confirmation bias.
 - e. **Selection bias** Not taking a fair sample
 - i. I don't know any scientists who...

c. Fallacies

- i. Defining a fallacy – flawed thinking. An argument that is not sound (valid & true). Now an argument can be stated(explicit) or just implied(implicit).
 - **Argument** - Any position that is supported by some claims.
 - **Implicit argument made explicit:** "He doesn't believe in evolution, but he's from the Bible belt, so what do you expect." Same argument actually stated explicitly:
 1. Those in the south are influenced by the Bible's account of God creating kinds/species (or by each other) more than by objective science.
 2. He is from the South.
 3. Therefore, he being against evolution is not rational. (genetic fallacy)
 - To make an argument explicit in our minds helps us to identify what is wrong with the claims.

- ii. Example stated/**explicit**:
 1. People who are married have a spouse.
 2. You are married.
 3. Therefore, you have a spouse.

- iii. Some of the more common/applicable fallacies that we see when discussing science/faith/philosophy issues or apologetics in general:
 - **Non sequitur** – Latin for ‘It does not follow.’ Premise and conclusion aren’t directly connected. So the premise does not cause the conclusion to necessarily be true. **Examples:**
 - a. My neighbor is a scientist, so he’s **definitely** not a theist.
 - b. That scientist is way smarter than me, so I won’t be able to understand what he says. (not necessarily true)
 - **Genetic Fallacy** – Questions a statement or assertion or position based on the background of the person making the statement or the source of the idea. **Example:** “You may say that origin of life is a scientifically impossible problem, but you’ve got a terrible gambling addiction and cheat on your wife so who cares what you think.” (the gambling cheater may be 100% correct about origin of life)
More specifically, an ‘Ad hominem’ argument (attack on a person’s character)
 - **Strawman** – 2 steps:
 1. Mischaracterization of the opposing position.
 2. Destroying that weak representation of the position.**Example:** All Christians that are against evolution are just motivated by religion, not evidence...
 - Just being emotionally driven isn’t even science.
 - Conclusion: So these Christians are WRONG (non-seq. also)
 - This whole argument falls apart because it starts out with the straw man assertion that Christians are just motivated by religion. In reality, many including us, ARE looking at the empirical scientific evidence.
 - **False dichotomy/false dilemma** – Presenting two options and implying that these are the only possible options when there are actually more. **Classic Example:** “Have you stopped beating your wife yet?” (yes/no).
Do you:
 - 1) Believe the scientific view that the natural world is all there is, or
 - 2) Do you let your religious agenda dictate some unjustified supernatural god. (maybe a 3rd option (or a 4th))
 - **Begging the question/circular argument**
 - a. Does not mean that the conclusion is necessarily false, just that the argument is not sound.

- b. 1. The Bible is the highest authority.
2. The Bible says that it's inspired by God.
3. Therefore, we should listen to what the Bible says.
 (We've snuck the conclusion into the first premise)
- c. Many arguments for science only being about matter, energy, space, and time are inherently circular.
- d. **PIP(Putting it into Practice):** Daryl will read 10 statements and, using what you've learned and your reference guide, see if you can identify **1-Whether** it is valid or fallacious, **2-If** it is fallacious, **what is the fallacy:**
 - i. **That pastor cheated on his wife, you can't believe anything he says about marriage - *genetic fallacy, ad hominem***
 - ii. **Do you believe in Science or believe in God? - *false dichotomy***
 - iii. **Scientific evidence shows that the universe had a beginning so it's reasonable to believe the universe had a first cause - *sound logic***
 - iv. **You're not a scientist, therefore nothing you say about science is true - *Genetic fallacy, non sequitur, ad hominem***
 - v. **Christians just believe in God because they need a crutch. Therefore, theism is not even real. - *Strawman, non sequitur***
 - vi. **Atheists don't believe in God. You claim to be an atheist, so you don't believe in God. - *sound logic***
 - vii. **Bruce says he thinks some of Donald Trump's positions will help America. I say "Bruce I can't believe you support racism." - *Strawman, non sequitur***
 - viii. **Surveys show that about 50% of scientists believe in the supernatural. Many of these same scientists do excellent scientific work with several of them being Nobel Prize winners. Therefore, you don't have to be an atheist to do good science. - *sound logic***
 - ix. **You don't believe in macroevolution, so you don't believe in Science? - *Strawman, non sequitur, false dilemma***
 - x. **Some Christians cannot effectively express why their faith is rational. Being able to express why your faith is justified and rational is important in being able to encourage and disciple other believers. Therefore, some Christians are missing an important element of being able to disciple other Christians. - *sound logic***
 - xi. **If Bob was really interested in discipling and encouraging others he would be in this mentoring group. He's not here. Therefore, he isn't interested in discipling or encouraging others. - *false dilemma, non sequitur***
 (maybe he's already trained up, maybe he's sick, maybe he's coaching his kids soccer team, maybe he forgot - more than two choices)
- e. Session 2 **RMR** practical challenge:
 - i. Over the next two weeks, see if you can pick up on two good examples of fallacious reasoning that you hear in the media or with people that you come in contact with. Jot them down so you'll be ready to share them next week.

