**Critical Thinking**

**Tutorial 9: Informal fallacies**

**Exercise 1:** Ambiguous statements are ones that have multiple meanings. For example, the sentence “*I crashed into a bank”* could mean that I crashed into a financial institution or that I crashed into a river bank. Identify the two possible interpretations of these Newspaper headlines.

1. Hospitals Sued by 7 Foot Doctors
2. Stolen Painting Found by Tree
3. Grandmother of Eight Makes Hole in One
4. Two Sisters Reunite After Eighteen Years at Checkout Counter

**Exercise 2:** The philosopher Daniel Dennett coined the term *‘Deepities’* to refer to seemingly profound statements that equivocate between two meanings. One meaning is true, but trivial. The other meaning is false but would be earth-shaking if it were true. Identify the two meanings of the following *deepities.*

1. Love is just a word
2. The theory of evolution is just a theory
3. Age is just a number
4. If a tree falls in the woods and no-one is around to hear it, does it make a sound?

**Exercise 3:** Identify the problems with the following arguments. Which informal fallacies do they commit? Explain why they are a problem for the argument.

1. Prof. Jones: "The university just cut our yearly budget by $10,000."   
   Prof. Smith: "What are we going to do?"   
   Prof. Brown: "I think we should eliminate one of the teaching assistant positions. That would take care of it."   
   Prof. Jones: "We could reduce our scheduled raises instead."   
   Prof. Brown: "I can't understand why you want to bleed us dry like that, Jones." \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. If we pass laws against fully-automatic weapons, then it won't be long before we pass laws on all weapons, and then we will begin to restrict other rights, and finally we will end up living in a communist state. Thus, we should not ban fully-automatic weapons. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. Animal rights activists complain that biomedical research laboratories torture and abuse animals. But what about this: pet owners abuse and beat their pets all over this country every single day. In fact, some studies say that as many as 25% of pet owners kick or beat them on a regular basis – it’s enough to make you sick.

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1. Jill: "We should clean out the closets. They are getting a bit messy."   
   Bill: "Why, we just went through those closets last year. Do we have to clean them out every day?"   
   Jill: "I never said anything about cleaning them out every day. You just want to keep all your junk forever, which is just ridiculous.“

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1. You can never give anyone a break. If you do, they'll walk all over you.

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1. If you’re already logical, then studying logic is unnecessary; but if you’re not logical, then you can’t understand what it’s about anyway, so it’s futile. So studying logic is either unnecessary or futile.

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1. Anti-government demonstrations must be stopped! There is a simple reason why. Although we support free speech, gatherings in defiance of the government cannot be tolerated.

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1. We've got to stop them from banning pornography. Once they start banning one form of literature, they will never stop. Next thing you know, they will be burning all the books!

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1. Senator Jones says that we should not fund the attack submarine program. I disagree entirely. I can't understand why he wants to leave us defenseless like that.

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1. I have seen the benefits of regular exercise on my health. Some people think these benefits are imaginary, a concoction of Jane Fonda’s to sell more tapes; but I can assure you otherwise!

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1. I’ll have to decide between going into debt for this new stereo system or doing without music for a while. But I couldn’t go without music, so I guess I’ll break out the credit card.

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1. Logic teaches you how to argue. People argue entirely too much. Therefore we don't need to teach people logic.

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1. **A:** How could the universe be 6000 years old when we know the speed of light, the distance of astronomical objects (13+ billion light years away), and the fact that the light has reached us?

**B:** 6000 years is not a firm number.  The universe can be as old as about 10,000 years.

**A:** How do you figure that?

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1. An animal is human if and only if it has human parents.

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1. The average household in Australia consists of 2.53 person. This is an average household. Therefore, this household consists of 2.53 persons.

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1. For sporting success you need a balanced diet – and loads of energy. As everyone does, every day of their lives. And one of the cheapest ways of getting the energy you need is with Tate and Lyle’s pure British-refined sugar.

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**Exercise 4: Find your own informal fallacies!**

Now look for your own examples in the news and on social media. The links in this section should give you some inspiration if you don’t know where to start. Discuss them in small groups and report back to the class.

For examples of how informal fallacies are used for science denial and in the debate on climate change, see

<https://www.skepticalscience.com/history-FLICC-5-techniques-science-denial.html>

<https://www.skepticalscience.com/argument.php>

For a list of insults uttered by Donald Trump, compiled by the New York Times, see <https://www.nytimes.com/interactive/2016/01/28/upshot/donald-trump-twitter-insults.html>