**Week 4: Lecture 1 - Faulty Reasoning and Logical Fallacies**

Last week, we explored human reasoning and our natural process for making inferences. Through that exploration, we learned that inferences can take two general forms: inductive and deductive. We also learned that these forms of reasoning arrive at conclusions through opposite approaches. Both are valid, both are useful, and both are important.

Both, however, can be faulty. We don’t need to spend too much time thinking about this to recognize it’s true. But let’s first briefly review in broad terms what makes a good argument. Note: in the video, abductive reasoning is introduced. While we did not cover this last week, you will notice that it is very similar to inductive reasoning.

**Watch this video** [**https://youtu.be/lWhjFoC3PME**](https://youtu.be/lWhjFoC3PME)

Watch this very brief video on validity and soundness if you’d like some additional reinforcement in a “Posh British Accent”:

[**https://youtu.be/vTVTqjqqhrw**](https://youtu.be/vTVTqjqqhrw)

So, what then makes a ‘bad argument’? We can evaluate the premises of our evidence. If these are faulty, then the argument is not valid. Or we can evaluate the logic of an argument. If these are faulty, then the argument is not sound. So an argument that is not valid, or not sound, is bad; it is based upon faulty reasoning….got it! But let’s dig deeper… These are general determinants of faulty reasoning, yet still important, and usable in almost every situation. But let’s dig a bit deeper into bad arguments and faulty reasoning. Perhaps the most common form of a bad argument is the logical fallacy. There are MANY logical fallacies. Basically, these are elements of arguments that are not logical, are not sound, or are deceptive. The best way to understand this is to hear some examples.

* GCF Global - [Critical Thinking and Decision Making - Logical FallaciesLinks to an external site.](https://edu.gcfglobal.org/en/problem-solving-and-decision-making/logical-fallacies/1/)
* University of Texas at El Paso - [Master List of Logical FallaciesLinks to an external site.](https://utminers.utep.edu/omwilliamson/ENGL1311/fallacies.htm)

Some logical fallacies are rather easy to spot; others can be much more difficult to spot, especially when the intent of the arguer is to conceal the fallacy with the goal of deceiving the hearer. Check out this argument - the famous 1952 "If By Whiskey" speech by Noah Soggy Sweat, reenacted by Terry Ross:

<https://youtu.be/wmuMLd_lAIU>

Imagine being the politician to give a speech so purposefully deceptive that it becomes the name for a logical fallacy: the “If by whiskey” fallacy!

**Week 4: Lecture 2 - Avoiding Logical Fallacies and Faulty Reasoning**

Again, being able to identify logical fallacies and faulty reasoning is important. Why? Because they are all around us, all the time. One of the inherent traits of logical fallacies, however, is that they can be difficult to spot. Another is that they can be used both intentionally and unintentionally. Sometimes we use them to manipulate, but other times we just make a case or an argument that uses faulty reasoning. Regardless of intent, it is important for us to be able to ‘hear’ those logical fallacies, and to avoid using them ourselves!

Review the following video or read the transcript below it to learn more about the importance of understanding faulty reasoning and fallacies…

<https://youtu.be/wh1vvK_wfVg>

Here’s another list of [16 Common Logical Fallacies and How to Spot ThemLinks to an external site.](https://blog.hubspot.com/marketing/common-logical-fallacies). All of the examples in that list fall within some professional context, and might actually sound like something you’ve heard before! Understanding these fallacies will help you as you work on this week’s Discussion and Assignment.

In closing, think back to the basics: what critical questions would you ask in the workplace when faced with ‘arguments’? How does critical inquiry help you determine the validity and soundness of arguments, and how does it help you spot those well-disguised fallacies?