



Essentials of Formal Logic with Joelle Hodge

Lesson 6: Chapter 3.1

Outline:

Chapter 3, Lesson 3.1

- Formal Logic and the Three Acts of the Mind
- Thinking about thinking, the nature of formal logic
- In informal logic, we use standards of relevance, presumption, and clarity. We were judging arguments.
- What is the difference between an argument and an explanation?
 - Make an argument by supporting a thesis, or main point, with logical evidence.
 - An argument is trying to get you to agree with something, whereas an explanation is just trying to help you understand it.
 - An argument is persuasive.
 - An argument goes from premise to conclusion, whereas an explanation usually goes from cause to effect.
- Formal logic is basically thinking about thinking.
 - Formal logic tries to break down and understand the process of thinking that people use when they create any argument or explanation.
 - Informal logic is “dialectical” in nature, whereas formal logic is “structural.”
 - Dialect involves a verbal exchange, a dialogue.
 - Structure means we are looking at just the form of the argument. There are valid forms.
 - Formal logic is “structural” because it is more about how the process of good thinking works.
 - Formal logic is more concerned with making explanations about how the process of good reasoning works.
 - In studying formal logic, we break the process of reasoning apart and make sense of the process itself.
- Aristotle was founder of formal logic. He created a very useful way to understand how the process of thoughts works based on three **acts of the mind**, which are **simple apprehension**, **judgement**, and **inference**.
 - When you apprehend something, you put it into a category.
 - This process is called **abstraction**. First you see something, then you pull out a category that seems to fit it, and finally, you mentally put that thing that you see into a category.
 - Simple apprehension is something that just happens.



- Once you apprehend something, it can become the first building block for logic: a term. You then put together terms to form propositions. That process is called judgement.
- Then you move from propositions that you do know to ones that you don't know. That process is called inference.
- The three acts of the mind are the three stages that your mind goes through to make sense of anything.
 - First you try to apprehend it, then you make relationships, then you draw inferences from it.
- When you show how two terms relate to each other, the act of the mind is called judgement.
- The mental act of drawing conclusions on the basis of what you already know (or at least assume) is referred to as the **process of inference**. In this case, it is what we refer to as a **deductive inference** because this is a deductive argument.
- A deductive argument, if properly formed, is said to be valid. In a valid deductive argument, if you accept the truth of the premises, the conclusion absolutely must be true as well.

