Lecture Notes

Lesson 8: Assumptions

Slide 1: (Recap) Valid Deductive Arguments

Validity

A deductive argument is **valid** when its conclusion follows logically from its premises.

Here is an example of a valid deductive argument:

A 🡪 B

A\_\_\_\_\_

B

Slide 2: Assumptions

* Most of the time, when we encounter an argument, some of the premises **will not be explicitly stated**.
* An **assumption** or **implicit premise** of an argument is a premise that is assumed by an argument but is not explicitly stated.
* Because assumptions help to connect the premises of an argument to the conclusion of that argument, they will relate to the information the argument already gives.
* For example, consider the following argument:

This paper is only 25 pages long, so it can’t be published as a book.

**What is the assumption of this argument?**

Slide 3: Strategy for Identifying Assumptions (implicit premises)

To identify the implicit premise of an argument, you should look for an added premise that:

1. Closes the logical gap between the stated premises and the conclusion, and
2. Does not commit the speaker to more than is necessary. (Kelley 90)

Slide 4: Necessary and Sufficient Assumptions

* Sometimes, an argument may have more than one implicit premise.
* In that situation, each of the assumptions will be **necessary assumptions**: they are assumptions that are required in order to get from the premises to the conclusion.
* But those assumptions will not individually be **sufficient** to establish to establish the argument’s conclusion.
* Consider the following example:

Cleaning regularly maintains a tidy living space. So, if we clean regularly, we will live in a healthier environment. Thus, we’ll be happier if we clean regularly.

Thus, cleaning regularly is essential for a good quality of life.

CR 🡪 TLS

(TLS🡪 HE)

CR 🡪 HE

(HE 🡪 H)

\_\_\_\_\_\_\_\_\_\_

CR🡪 FB

This argument has an intermediate conclusion in addition to the main conclusion of the argument:

* What is the main conclusion of the argument?
  + Thus, we’ll be happier if we clean regularly.
* What is the intermediate conclusion of the argument?
  + if we clean regularly, we will live in a healthier environment
* There is an assumption required to reach the intermediate conclusion:
  + Tidy living space 🡪 healthier environment
* And there is an assumption that is required to get from the intermediate conclusion to the main conclusion:
  + Healthier environment 🡪 happier
* These assumptions are each NECESSARY to establish the truth of the conclusion, but neither is individually SUFFICIENT to establish the truth of the conclusion

**Homework examples:**

1. Tom is a very successful salesman, so he must be an outgoing person.

2. The doorbell just rang. Someone must be at the door.

3. Cheating is dishonest and therefore wrong.

4. This sample of copper melted at 1063°C in the laboratory. Therefore, all copper has a melting point of 1063°C.

5. Politicians who are convicted of crimes should not be returned to office, so Congressman Jones should not be re-elected.

6. The arresting officer had not read Johnson his Miranda rights, so the judge had to let him go, even though he confessed to the Pine Street burglary.

7. The traditional wax record, played on top-of-the-line equipment, can reproduce the spatial features of music such as the positions of the instruments in an orchestra. So, in that respect it is superior to most compact disc recordings.

8. The government should continue to deregulate the telecommunications industry, because we need an industry that can act quickly and flexibly to exploit the new communications technology.

9. The plays attributed to Shakespeare exhibit a profound intelligence, but Shakespeare himself never went to college, and therefore could not have been very intelligent. So someone else wrote his plays.

10. When testing the effects of a new drug, it’s important to isolate the physical effects of the drug from the psychosomatic effects of taking it. Therefore, one must use a placebo.

**LSAT EXAMPLES:**Maude is incessantly engaging in diatribes against people who are materialistic. But her hypocrisy is evinced by the sentimental treatment of the watch her grandmother gave her. She certainly is very fond of the watch—she worries about damaging it; in fact she always sets it carefully in a special box before going to bed.

**Which one of the following is an assumption on which the argument depends?**

**A)** Possessions that come from relatives are treated with better care than those that do not.

**B)** Sentimental attachment to a single possession indicates being materialistic.

**C)** People who care about material things in general tend to take special care of all their possessions.

**D)** Maude's watch is not the only material thing she especially cares for.

**E)** People who are not materialistic tend to have merely sentimental attachments to things.

**Physician:** In itself, exercise does not cause heart attacks; rather, a sudden increase in an exercise regimen can be a cause. When people of any physical condition suddenly increase their amount of exercise, they also increase their risk of heart attack. As a result, there will be an increased risk of heart attack among employees of this company due to the new health program.

The conclusion drawn by the physician follows logically if which one of the following is assumed?

**A)** Employees will abruptly increase their amount of exercise as a result of the new health program.

**B**) The exercises involved in the new health program are more strenuous than those in the previous health program.

**C)** The new health program will force employees of all levels of health to exercise regularly.

**D)** The new health program constitutes a sudden change in the company's policy.

**E)** All employees, no matter what their physical condition, will participate in the new health program.