**Logic: Basic concepts**

Reasons for belief include

“that’s how I was raised”

“it makes me feel good”

“these are good reasons for it”

But aren’t by beliefs a personal matter?

*Argument*: An argument is a group of statements which claim to provide support for a conclusion

*Statement:* A statement is a sentence that is either true or false

**Argument Reconstruction**

Natural arguments have implied premises or even an implied conclusion

Arguments have something to prove, whereas explanations do not

Casual arguments frequently look like explanations

*Deductive and inductive arguments*

Deductive: conclusion follows necessarily from premises

If the argument is valid, then it is sound

Inductive: true premises make the conclusion probable

If the argument is strong, then it is cogent

**Logic**

There are two ways that evidence can support a conclusion. Deductive and inductive

For deductive arguments, if the premises are true and the logical relation is good, then the conclusion must be true, its truth is guaranteed in that case.

For inductive arguments, if the premises are true and the logical relation is good, then the conclusion might not be true.

Common inductive arguments include:

* Generalization
* The future will be like the past
* Arguments from analogy

Testing for validity

* Assume that the premises are true
* Ask if it is possible for the conclusion to be false, given that the premises are true
* If it is possible, then the argument is invalid

**Levels of doubt: Descartes**

* Argument from error
  + What has erred in the past shouldn’t be trusted ion the future
  + This leaves much untouched since our own senses are generally reliable
* Dreaming argument
  + My senses could be deceived completely but somethings are unchanged
* Evil demon argument
  + I can even doubt my body, arithmetic, and space & time

Skepticism: Knowledge is impossible

Knowledges is justified true belief but the conditions for justification

There are two types of skepticism  
1) Everyday sense, particular skepticism

2)philosophical skepticism, global skepticism

A posteriori knowledge is known from sense experience

A priori knowledge is knowledge prior to experience