

PHI 103 - Introduction
Lecture 3

An Introduction to Arguments

Arguments

An Introduction

What **IS** an argument?

Definition:

Argument - a set of statements (*two or more*) in which one is **logically dependent** on the other(s).

Erin seldom attended her Logic class.
Therefore, she's not likely to pass.

I forgot to feed Kato this morning.
Therefore, he's likely to be hungry when I get
home.

The majority of people voted for the Republican
presidential candidate.

Thus, the new president will be a Republican.

I've never changed the oil in my car.
It's screwed!

Definition: **Argument** - a set of statements in which one is
logically dependent on the other(s).

I've never changed the oil in my car.
Hence, my dog's name is Kato.

Definition: Argument - a set of statements in which one is *logically dependent* on the other(s).

I've never changed the oil in my car.
Hence, my dog's name is Kato.

The second statement *does not follow logically* from the first.

Arguments

An Introduction

Definition: Argument - a set of statements in which one is *logically dependent* on the other(s).

I. The Basic Elements of an Argument -

A. The **Premise** - a statement (i.e., evidence) that *logically supports* a conclusion

B. The **Conclusion** - a statement that *logically follows* from a premise

“Since the good, according to Plato, is that which furthers a person’s real interests, *it follows that* in any given case when the good is known, men will seek it.”

Stroll and Popkin, “Philosophy and the Human Spirit”

The good secures our interests.



premise

Therefore, if a person knows the good, they will seek it.



conclusion

“As the denial or perversion of justice by the sentences of courts, as well as in any other manner, is with reason classed among the just causes of war, it will follow that the federal judiciary ought to have cognizance of all causes in which the citizens of other countries are concerned.”

Alexander Hamilton

A denial of justice is a reasonable cause of war.



premise

Therefore, courts should be aware of problems in other countries.



conclusion

“Since the drive for profits underlies the very existence of business organizations, it follows that a most important function of an accounting system is to provide information about the profitability of a business.”

Meigs and Meigs, “Accounting”

The profit motive underlies the existence of businesses.



premise

Therefore, an accounting system should provide information about the profitability.



conclusion

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Definition: Argument - a set of statements in which one is *logically dependent* on the other(s).

I. The Basic Elements of an Argument -

A. The **Premise** - a statement (i.e., evidence) that *logically* supports a conclusion

B. The **Conclusion** - a statement that *logically* follows from a premise

C. The **Inference** - the **logical connection** between the premise(s) and conclusion

The good
secures our
interests.

Therefore,



If a person
knows the good,
they will seek it.

A denial of
justice is a
reasonable
cause of war.

Therefore,



Courts
should be
aware of
problems in
other
countries.

The profit
motive
underlies the
existence of
businesses.

Therefore,



An accounting
system should
provide
information
about
profitability

Arguments

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II. **The Purpose of an Argument** - persuading your audience *through reason alone*

A. **Self-evident** claims - tautological, analytical, definitional
statements

Any Sentence That *Cannot* be False

One is equal to one.

Bachelors are unmarried men.

Triangles are trilinear.

Nothing is both red and black all over.

Arguments

An Introduction

II. **The Purpose of an Argument** - persuading your audience *through reason alone*

A. **Self-evident** claims - tautological, analytical, definitional statements

B. **Deductions** - propositions that *follow with logical necessity* from one or more propositions.

premise 1) All dogs are mammals.

premise 2) Kato is a dog.

conclusion) *Therefore*, Kato is a mammal.

Arguments

An Introduction

II. The Purpose of an Argument - persuading your audience *through reason alone*

A. **Self-evident** claims - tautological, analytical, definitional statements

B. **Deductions** - propositions that *follow with logical necessity* from one or more propositions.

C. **Inductions** - propositions that *follow with a degree of probability* from one or more propositions.

premise 1) All European domestic cats are quadrupeds.

premise 2) All African domestic cats are quadrupeds.

premise 3) All Asian domestic cats are quadrupeds.

conclusion) *Therefore*, it's likely that all domestic cats are quadrupeds.

Arguments

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II. **The Purpose of an Argument** - persuading your audience *through reason alone*

A. **Self-evident** claims - tautological, analytical, definitional statements

B. **Deductions** - necessary conclusions

C. **Inductions** - probable conclusions

D. **Credibility** -

1. **Knowledge**

2. **Objectivity**

3. **Principle of Charity** - be fair to opposing arguments

Arguments

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III. Recognizing Arguments -

A. An *argument* is a set of **statements** in which the *premise* provides logical support for the *conclusion*.

1. **Statement** - any **bivalent** [L. *valentia* - value] sentence (i.e., it is either *true* or *false*)

All cats are dogs.
Kato is asleep on the bed.
Sodium reacts with water.
I am a physician.

Note: *Not all* sentences are statements:

- Warnings
- Advice
- Questions
- Imperatives
- Opinions

Arguments

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1. **Statement** - any **bivalent** [L. *valentia* - value] sentence (i.e., it is either *true* or *false*)
2. **Proposition** - the *content* or *meaning* of a statement
3. **Explicit Inferences** - indicated by signs
 - a. *Premise* Indicators -

Common Premise Indicators

'since'

'because'

'for'

'seeing that'

'the reason being'

'is implied by'

Arguments

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2. **Proposition** - the content or *meaning* of a statement

B. *Explicit Inferences* - indicated by signs

1. **Premise Indicators** -

2. *Conclusion* Indicators -

Common Conclusion Indicators

'so'

'thus'

'therefore'

'hence'

'consequently'

'in conclusion'

Arguments

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III. Recognizing Arguments -

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1. **Statement** - any **bivalent** [L. *valentia* - value] sentence (i.e., it is either *true* or *false*)

2. **Proposition** - the content or *meaning* of a statement

B. **Explicit Inferences** - indicated by signs

1. Premise Indicators -

2. Conclusion Indicators -

C. **Implicit Inferences** - *not indicated* by signs

Arguments

An Introduction

* *Special Note:* **NOT EVERY** inference indicates an argument.

Conditional Statements

contain a logical inference, but are *not* arguments.

Conditional Statement: an “if” “then” statement.

If Kato is a dog, *then* he is a mammal.

If Kato is an mammal, *then* he is an animal.

If Kato is an animal, *then* he is not a mineral.

Arguments

An Introduction

Conditional Statements are composed of two distinct parts:

If _____, *then* _____.

Antecedent

Consequent

Arguments

An Introduction

The Terms (i.e., *antecedent* and *consequent*) of a conditional statement represent two distinct logical relationships:

Necessary - a condition without which an event *cannot* occur

Sufficient - a condition which, when present, is all that is needed for the event to occur

If (antecedent), *then* (consequent).



*sufficient
condition*



*necessary
condition*

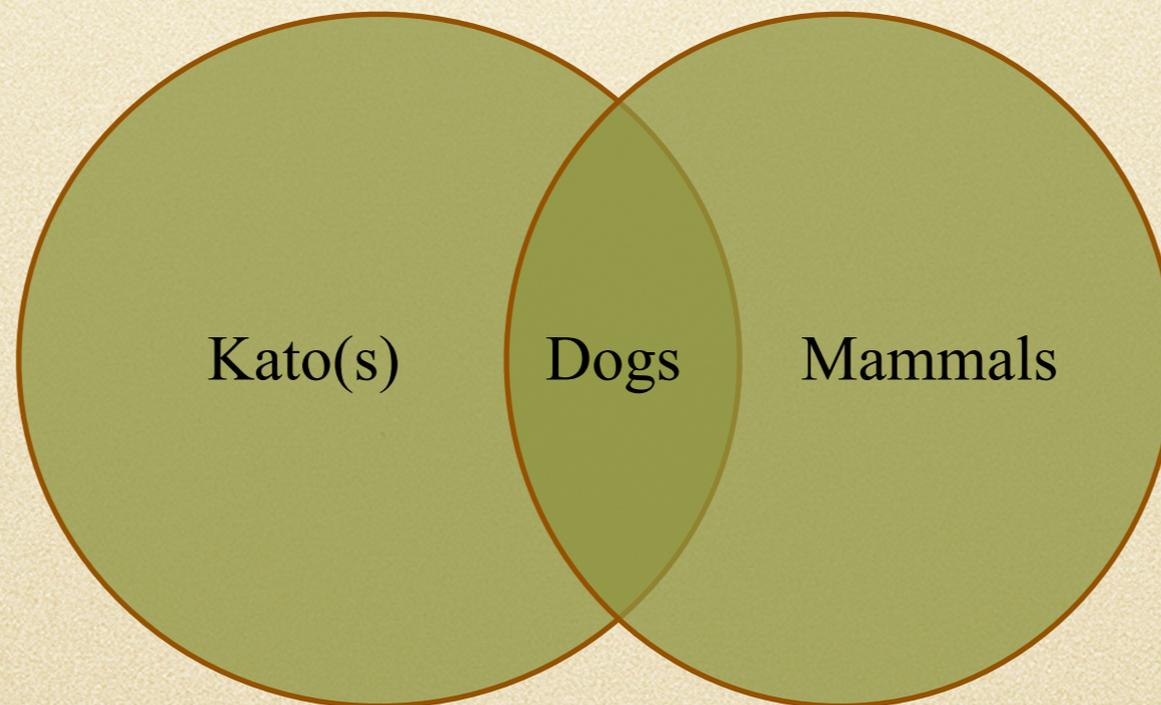
Arguments

An Introduction

If Kato is a dog, *then* he is a mammal.

Being a dog is a *sufficient* condition for being a mammal.

Being a mammal is a *necessary* condition for being a dog.



Summary

- An **argument** is two (*or more*) statements where one is *logically dependent* on the other.
- An **argument** has *three necessary elements*:
 - ✦ the **premise(s)** - the support or evidence
 - ✦ the **conclusion** - what *logically* follows from the evidence
 - ✦ the **inference** - the movement *from* premise *to* conclusion as determined by the rules of logic
- The purpose of an argument is to persuade your audience *using reason alone*.
- A **statement** is a sentence that has a *truth-value*.
- A **proposition** is the *meaningful content* of a statement.