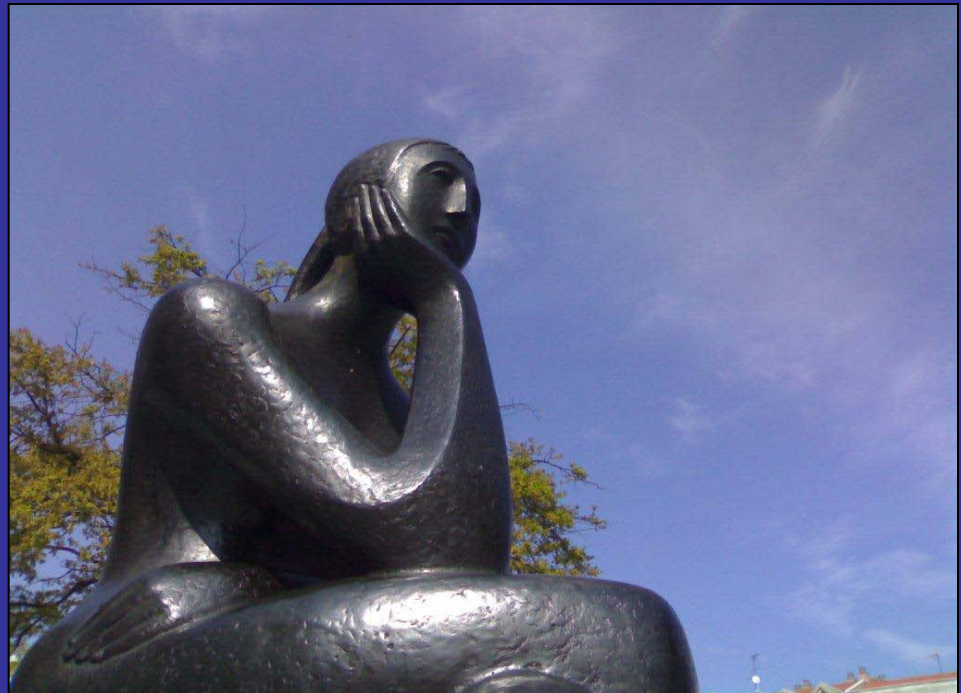


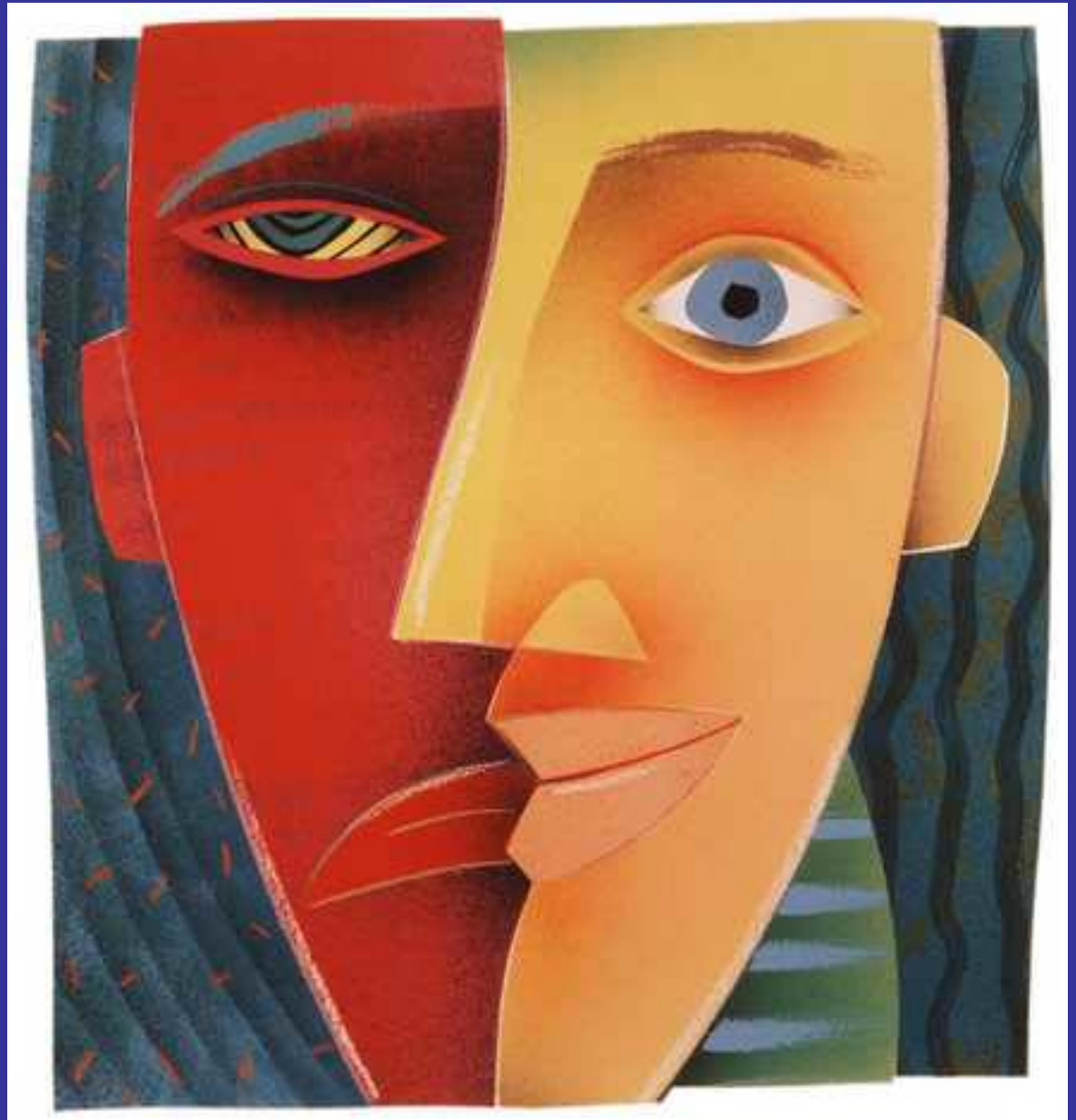
# THE ROLE OF REASONING AND PERSUASION IN APPEALS

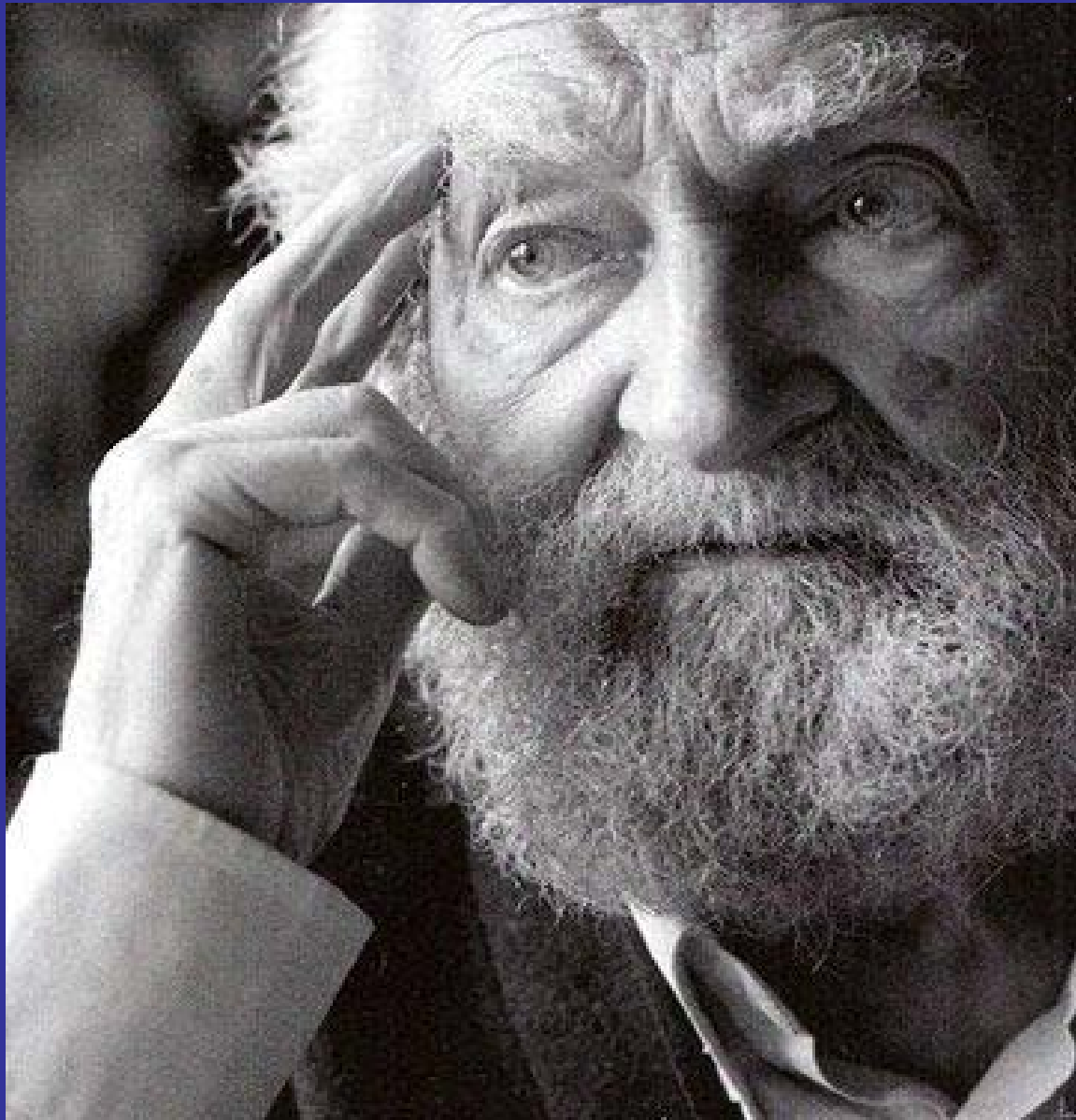
**RICHARD R. ORSINGER**  
**McCurley, Orsinger, McCurley,**  
**Nelson & Downing, L.L.P.**  
**Tower Life Building, Suite 1717**  
**San Antonio, Texas 78205**

# Reasoning



Emotion





**How  
Do  
We  
Think?**

# HYPOTHESIS: TWO TYPES OF THINKING

## QUICK

- Fast
- Intuitive
- Emotional
- Associative
- Pragmatic
- Unconscious
- Uncontrollable

## DELIBERATE

- Slow
- Analytical
- Rational
- Sequential
- Rule-bound
- Conscious
- Controllable

## REASONING THROUGH CATEGORIZATION

Categorization is one of the most basic functions of living creatures. We live in a categorized world – table, chair, male, female, democracy, monarchy – every object and event is unique, but we act towards them as members of classes.

Eleanor Rosch  
University of California, Berkeley

# CATEGORIES OF LAW

- Property Law
- Contract Law
- Tort Law
- Family Law
- Criminal Law
- Tax Law
- Environmental Law
- Legal Procedure
- Evidence Law

# CATEGORIES

Categories work best when –

- the things inside each category are *homogeneous*
- the *boundaries* of the categories are *clear*
- the categories are *mutually exclusive*



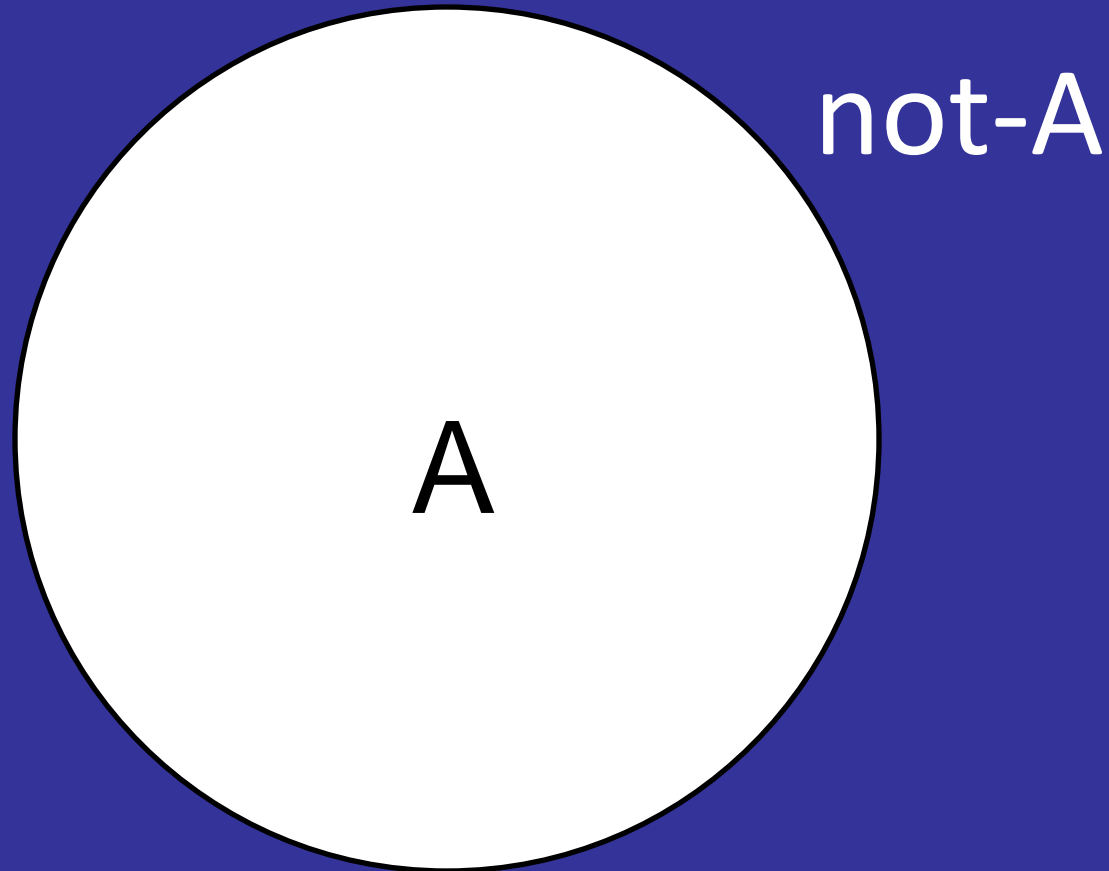
# EULER CIRCLES



Leonhard Euler  
(1768)

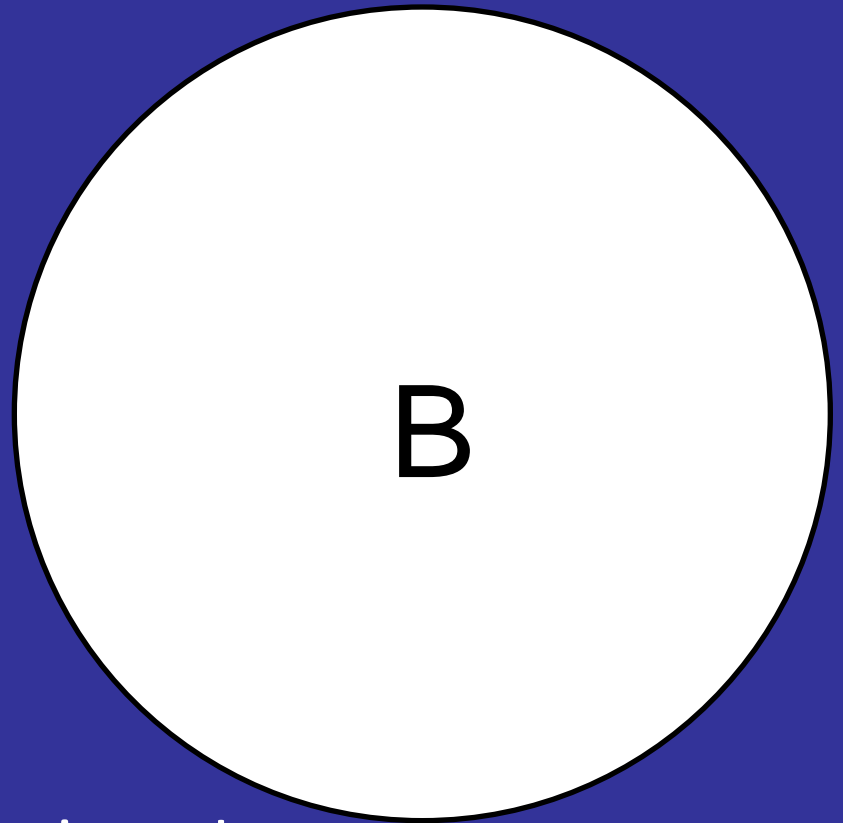
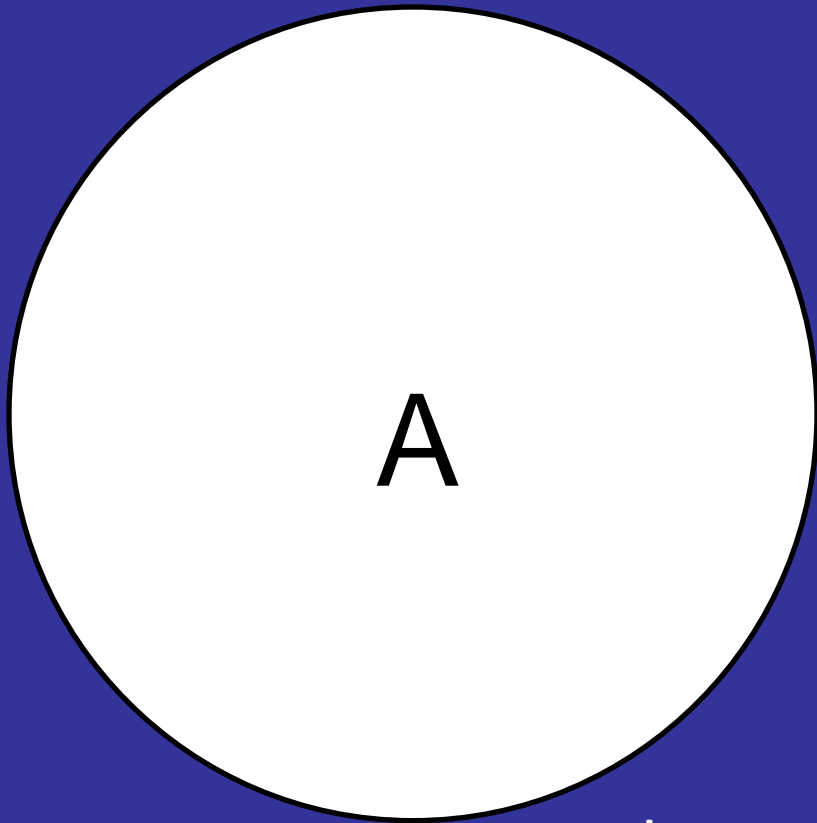
An easy way to visualize categories was developed by Swiss mathematician Leonhard Euler in 1768 – Euler Circles

# EULER CIRCLES



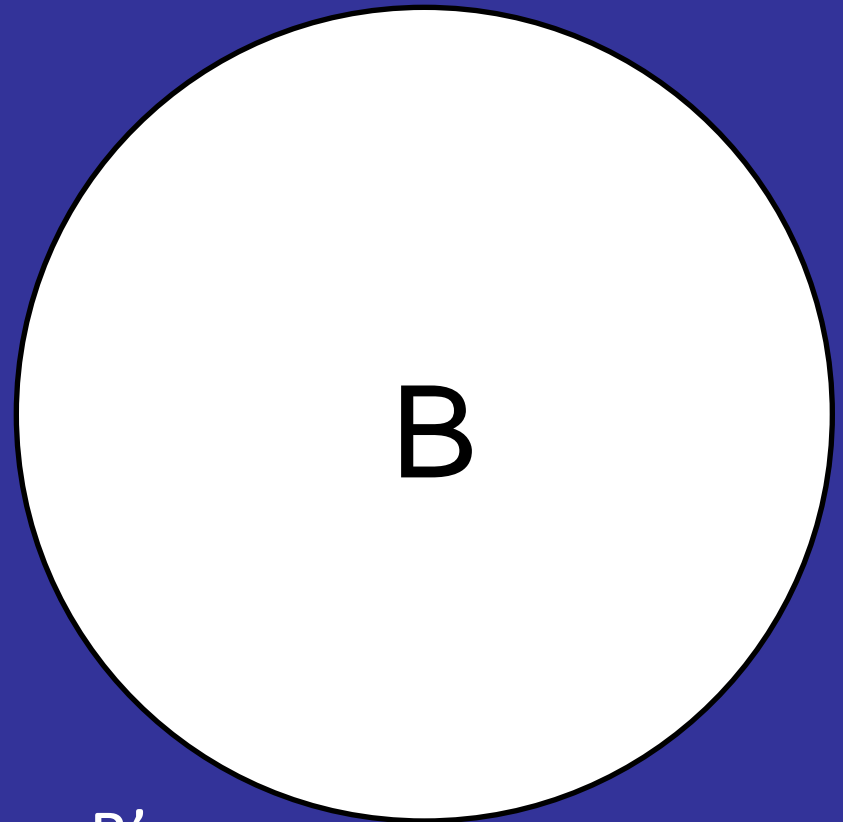
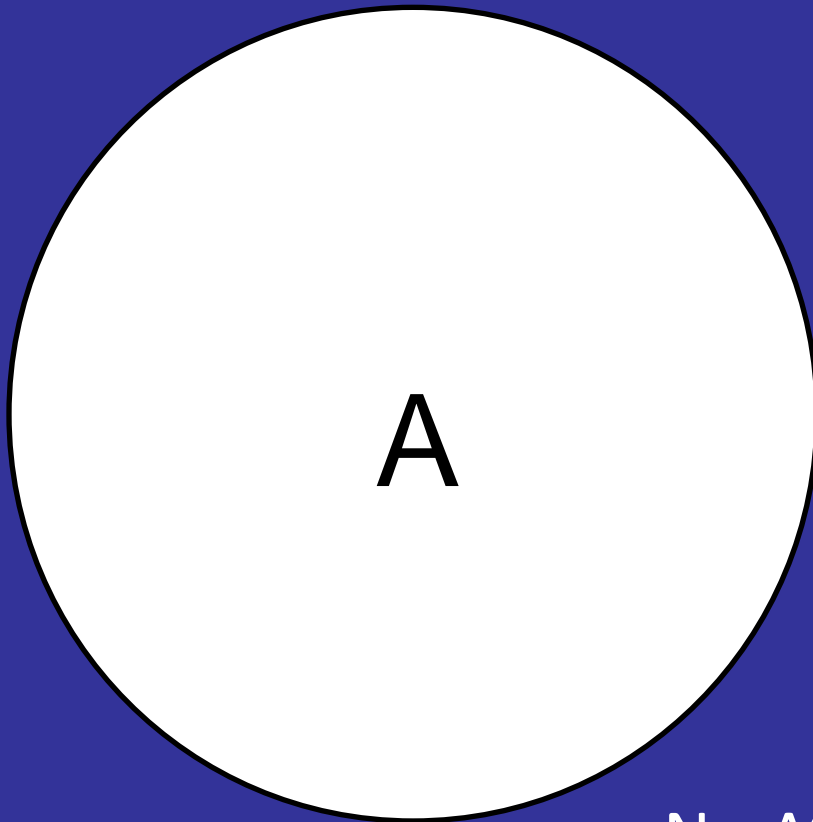
A thing is either A or it is not-A

# EULER CIRCLES



There are A's and  
there are B's

# EULER CIRCLES

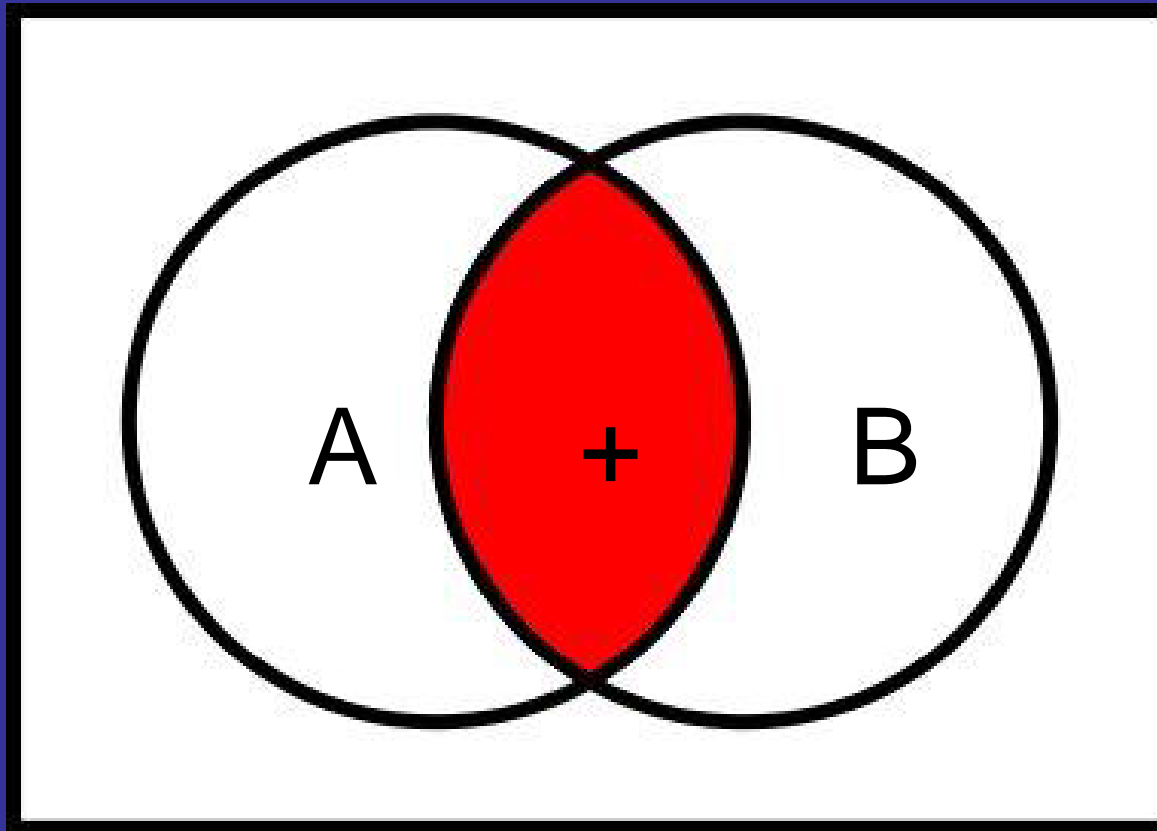


No A's are B's  
No B's are A's  
A's & B's are "disjoint"

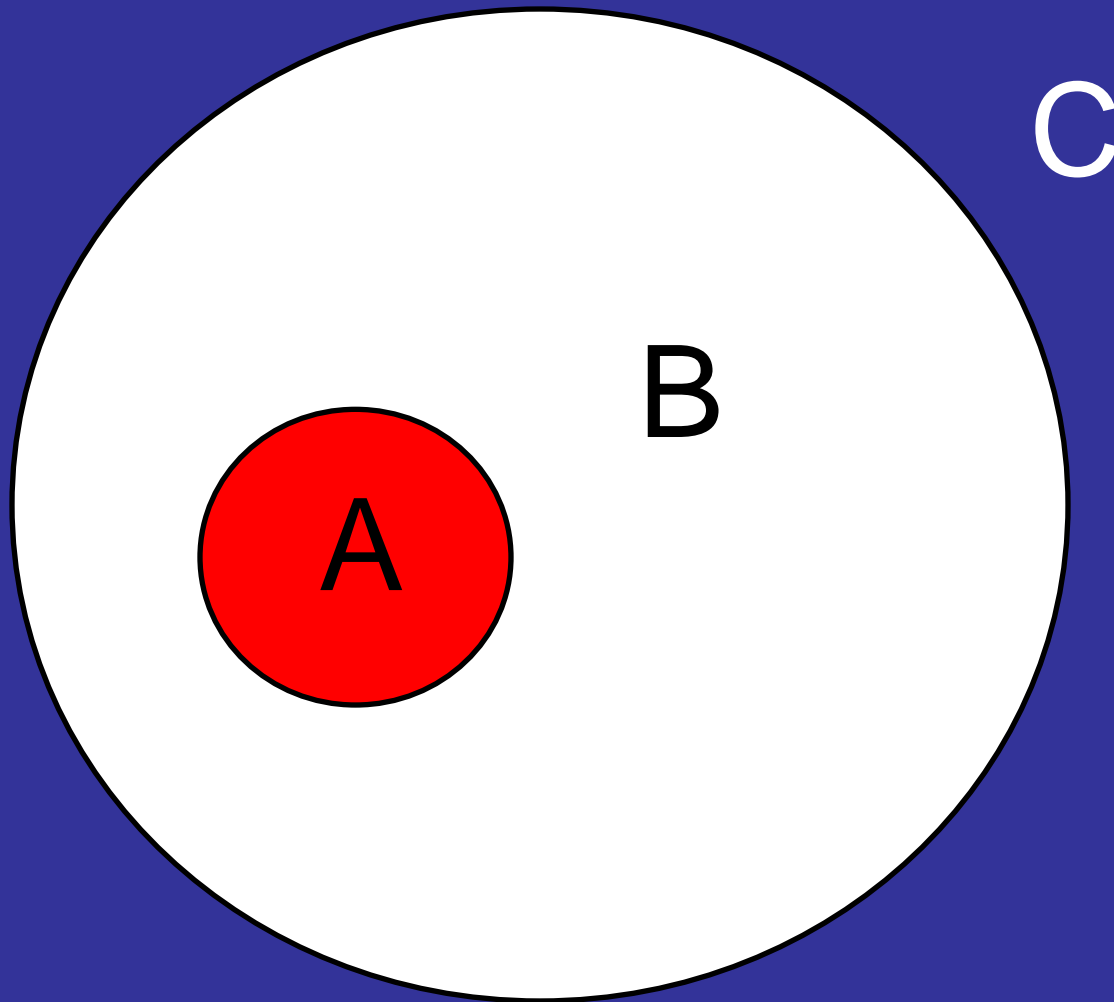


A, B

All A's are B's  
All B's are A's



Some A's are B's  
Some B's are A's  
Some things are both A & B (+)



All A's are B's  
Some B's are A's  
No A's are C's; no B's are C's

# LOGICAL REASONING



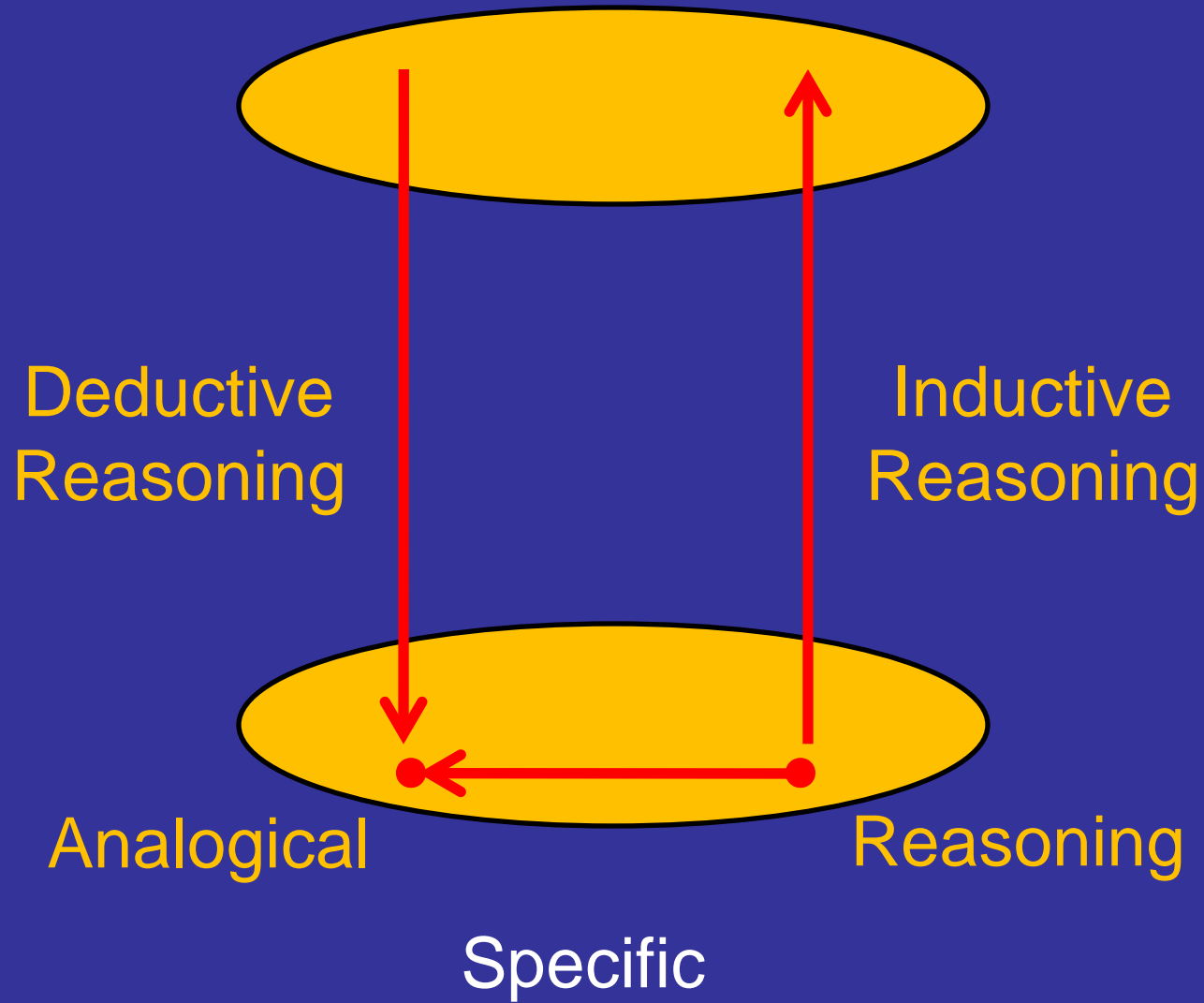
There are three types of logical reasoning:

**Deductive** – where two overlapping Premises lead by necessity to a Conclusion

**Inductive** – where multiple instances suggest a unifying principle which is identified and then tested to determine its validity

**Analogical** – where something unfamiliar is compared to things familiar until the greatest similarity is determined; after that, the new thing is placed in the category of the old, and is treated like the old

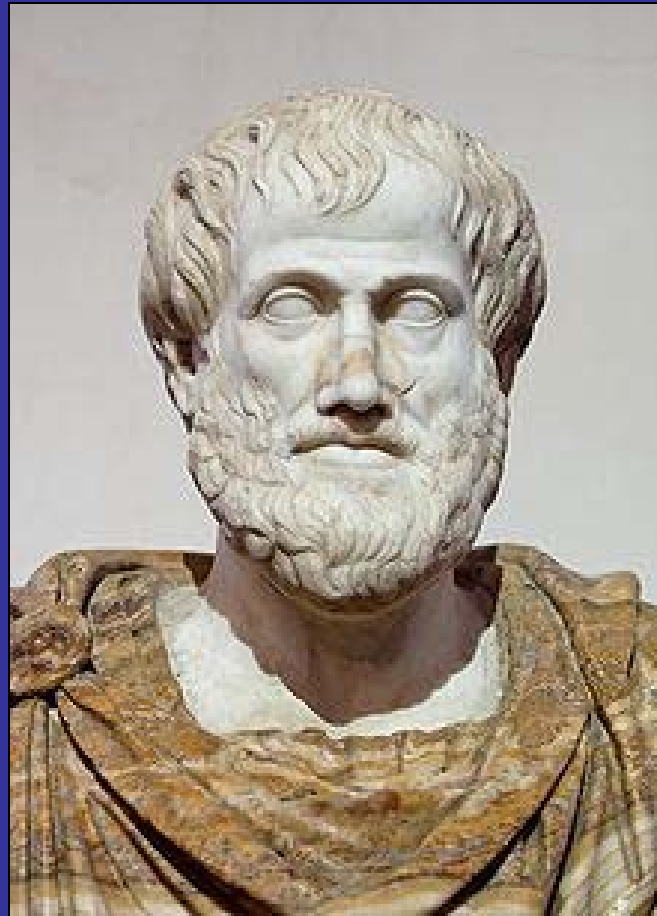
General



# STRENGTH OF TYPES OF LOGICAL REASONING

<b>TYPE</b>	<b>PREMISES</b>	<b>CONCLUSION</b>
Deductive:	True	→ Certain
Inductive:	True	→ Probable
Analogical:	True	→ Sufficient

# DEDUCTIVE REASONING (AS ENVISIONED BY ARISTOTLE)



Syllogism & Implication

# ARISTOTLE'S DEDUCTIVE REASONING THE CATEGORICAL SYLLOGISM

All men are mortal.

Socrates is a man.

Therefore, Socrates is mortal.

General



Specific

# ARISTOTLE'S CATEGORICAL SYLLOGISM

(showing the three propositions)

All men are mortal. (Major Premise)

Socrates is a man. (Minor Premise)

Therefore, Socrates is mortal. (Conclusion)

# ARISTOTLE'S CATEGORICAL SYLLOGISM

(showing the three Terms)

All men are mortal.

Socrates is a man .

Therefore, Socrates is mortal.

Categorical Syllogisms have three “Terms”:  
The Major Term, the Minor Term, the Middle Term

# ARISTOTLE'S CATEGORICAL SYLLOGISM (with Minor Term marked)

All men are mortal.

Socrates is a man.

Minor Term

Therefore, Socrates is mortal.

The Minor Term links the Minor  
Premise to the Conclusion



# ARISTOTLE'S CATEGORICAL SYLLOGISM (with Middle Term marked)

All **men** are mortal.

Middle Term

Socrates is a **man**.

Therefore, Socrates is mortal.

The Middle Term links the Major  
Premise to the Minor Premise

# ARISTOTLE'S CATEGORICAL SYLLOGISM (with Major Term marked)

All men are mortal.

Socrates is a man.

Therefore, Socrates is mortal.

Major Term

The Major Term links the Major  
Premise to the Conclusion

# ARISTOTLE'S CATEGORICAL SYLLOGISM

(all Propositions and Terms marked)

All men are mortal.

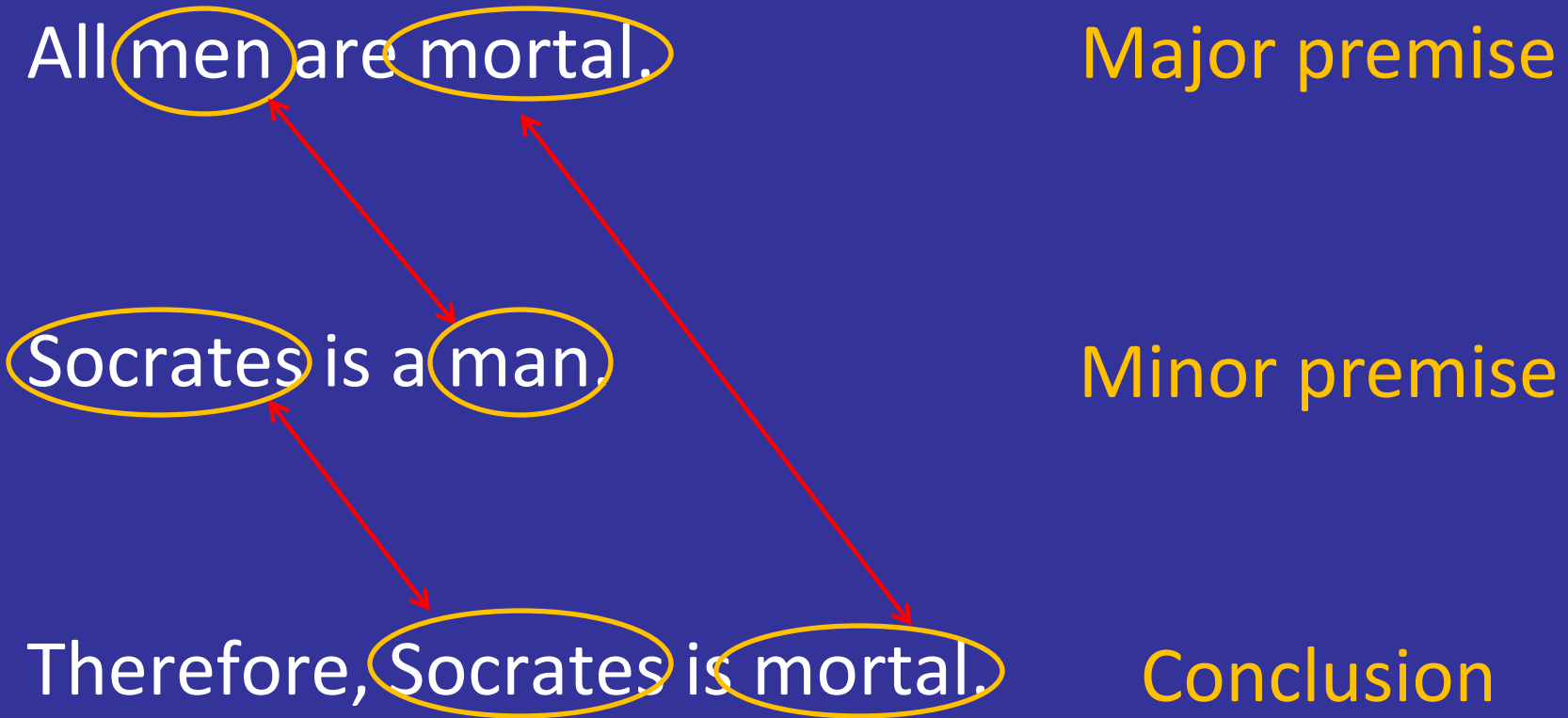
Major premise

Socrates is a man.

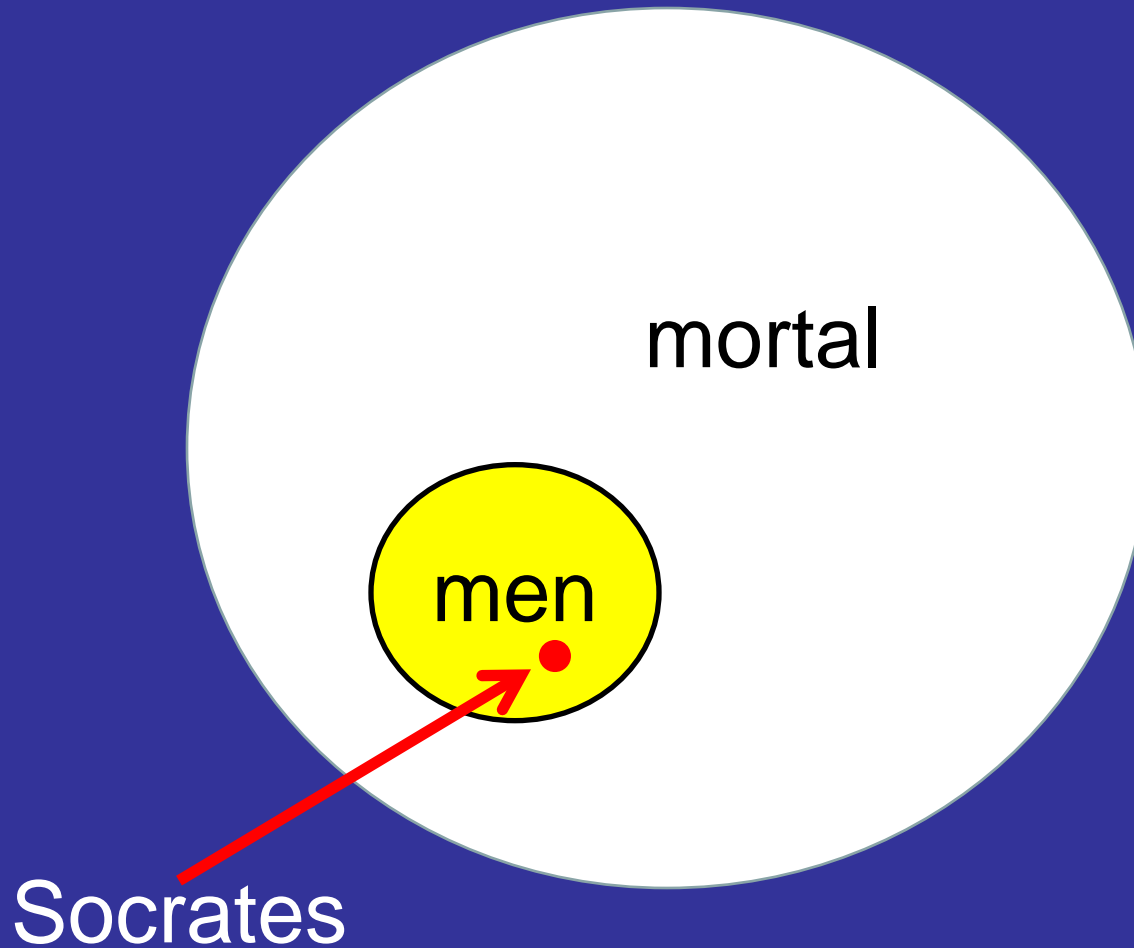
Minor premise

Therefore, Socrates is mortal.

Conclusion



# Depicting the Categorical Syllogism using Euler Circles



# ARISTOTLE'S CATEGORICAL SYLLOGISM

[stated abstractly]

All B's are C's

A is a B (therefore)

A is a C

(Aristotle invented variables)

# ARISTOTLE'S CATEGORICAL SYLLOGISM

**B's**      **C's**  
All men are mortal.

**A**      **B**  
Socrates is a man.

---

**A**      **C**  
Therefore, Socrates is mortal.

All B's are C's

A is a B

A is a C

# DEDUCTIVE REASONING - IMPLICATION

## Rule #1

P implies Q

If P then Q

$P \rightarrow Q$

$P \supset Q$

[the Antecedent] implies [the Consequent]

a “conditional proposition”

Modus Ponens

# DEDUCTIVE REASONING - IMPLICATION

## Rule #2

Not-Q implies Not-P

If Q is false, then P is false

Not Q  $\rightarrow$  Not P

Not Q  $\supset$  Not P

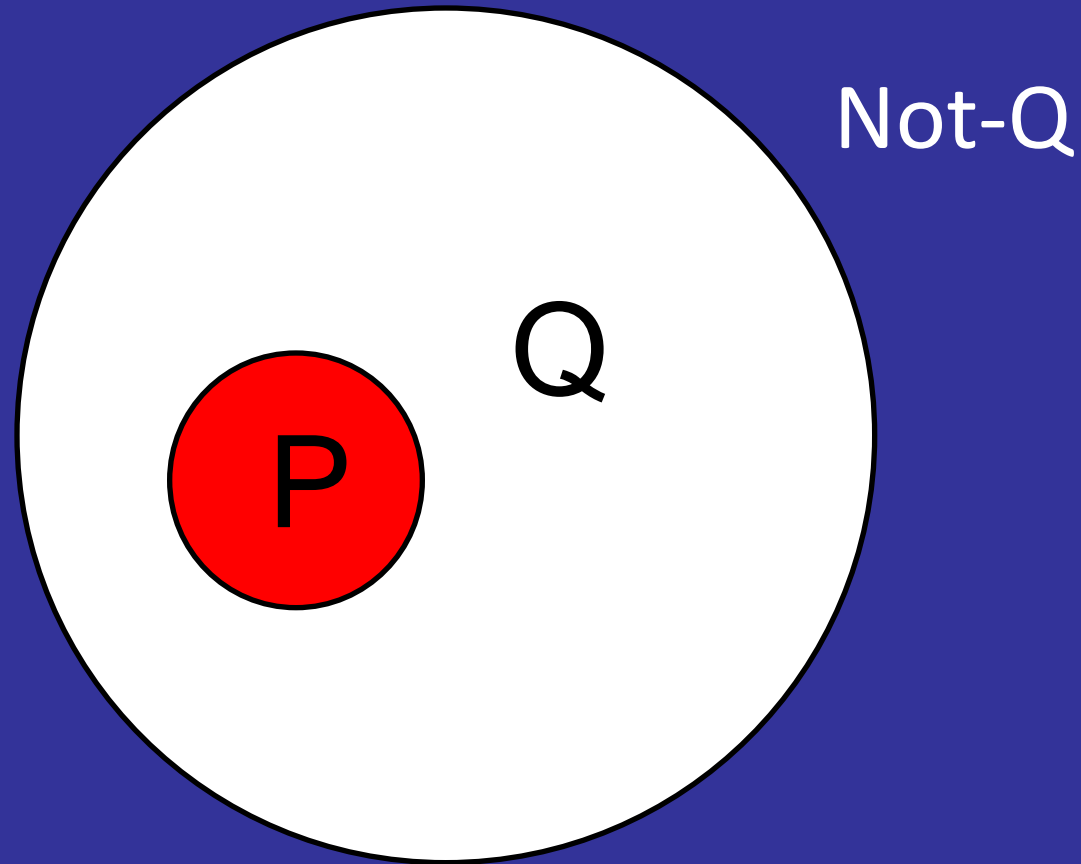
Denying the Consequent negates the Antecedent

Modus Tollens

Contrapositive



# Deductive Reasoning - Implication



“P implies Q”  
“Not-Q implies Not-P”

# DEDUCTIVE REASONING – IMPLICATION

## Rule #1

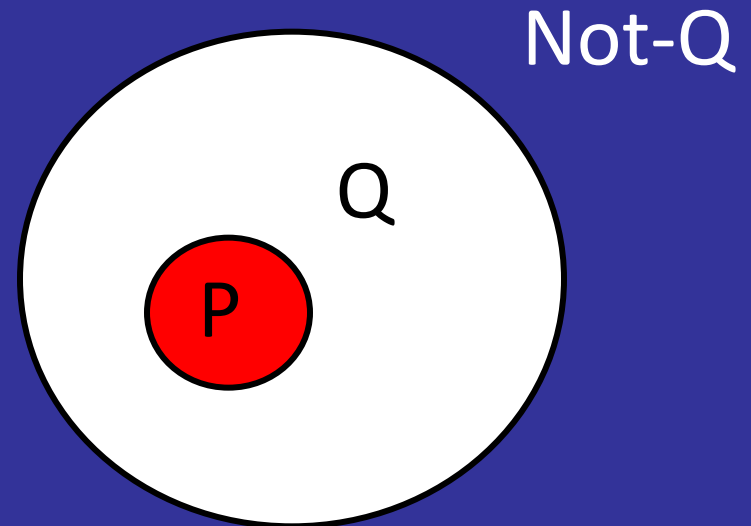
### Modus Ponens

(The way that affirms by affirming)

(1) P implies Q.

(2) P.

(3) Q.



“P implies Q”

# DEDUCTIVE REASONING – IMPLICATION

## Rule #2

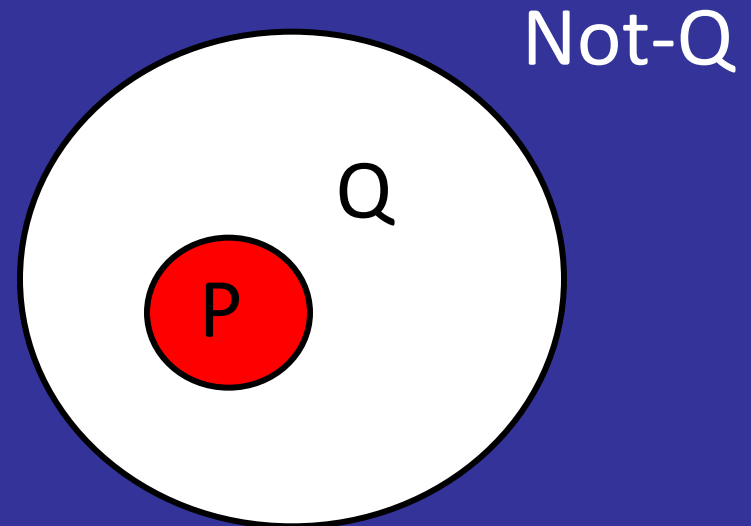
### Modus Tollens

(The way that denies by denying)

(1) P implies Q.

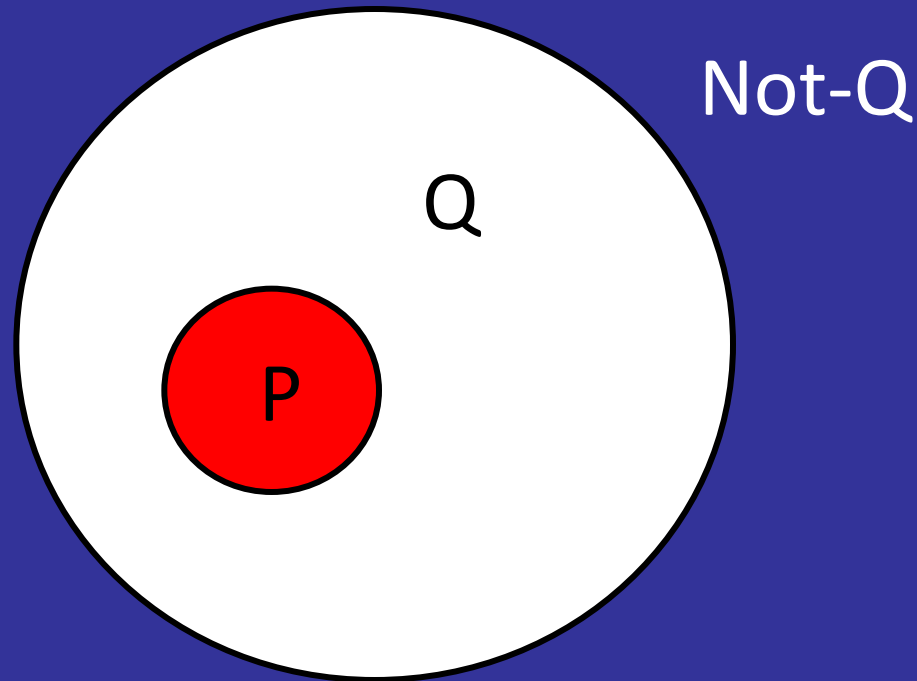
(2) Not-Q.

(3) Not-P.



“Not-Q implies Not-P”

# DEDUCTIVE REASONING - IMPLICATION



Of the four possible implications:

Valid

$$P \longrightarrow Q$$

$$\text{Not-}Q \longrightarrow \text{Not-}P$$

Invalid

$$Q \longrightarrow P$$

$$\text{Not-}P \longrightarrow \text{Not-}Q$$

# DEDUCTIVE REASONING – IMPLICATION

## EXAMPLE 1

### Modus Ponens (Affirming the Antecedent)

- (1) If it rained last night, then  
the sidewalk is wet.
- (2) It rained last night.
- (3) The sidewalk is wet.

Valid Reasoning

# DEDUCTIVE REASONING – IMPLICATION

## EXAMPLE 2

### Modus Tollens (Negating the Consequent)

- (1) If it rained last night, then  
the sidewalk is wet.
- (2) The sidewalk is dry.
- (3) It did not rain last night.

Valid Reasoning

# DEDUCTIVE REASONING – IMPLICATION

## EXAMPLE 3

### Negating the Antecedent

- (1) If it rained last night, then the sidewalk is wet.
- (2) It did not rain last night.
- (3) The sidewalk is dry.

# DEDUCTIVE REASONING – IMPLICATION

## EXAMPLE 3

### Negating the Antecedent

(1) If it rained last night, then  
the sidewalk is wet.

(2) It did not rain last night.

(3) The sidewalk is dry. X

Invalid Reasoning – a Fallacy



# DEDUCTIVE REASONING – IMPLICATION

## EXAMPLE 4

### Affirming the Consequent

- (1) If it rained last night, then  
the sidewalk is wet.
- (2) The sidewalk is wet.
- (3) It rained last night.

# DEDUCTIVE REASONING – IMPLICATION

## EXAMPLE 4

### Affirming the Consequent

- (1) If it rained last night, then the sidewalk is wet.
- (2) The sidewalk is wet.
- (3) It rained last night. X

Invalid Reasoning – a Fallacy

Robinson vs. DuPont, 923 S.W.2d 549 (Tex. 1995)

- (1) Benlate causes Brown Leaf Disease.
  - (2) After spraying trees with DuPont's fertilizer, Defendant's trees exhibited Brown Leaf Disease.
  - (3) DuPont's fertilizer contained Benlate.
- 

This is Modus Ponens logic.

Fallacy of Affirming the Consequent

However, Benlate is a *possible* cause

# INDUCTIVE REASONING - GENERALIZATION

Swan A is white

Swan B is white

Swan C is white

All swans are white

# INDUCTIVE REASONING - GENERALIZATION

Swan A is white

Swan B is white

Swan C is white

All swans are white



“A Black Swan”

Fallacy of Hasty Generalization

# INDUCTIVE REASONING – STATISTICAL GENERALIZATION

(1) A representative sample is selected.

(2) Sample is 70% green

---

(3) Population is 70% green

# 1948 Presidential Election

(1) Surveys of sample groups

(2) Majority of samples supports Dewey

(3) Majority of Americans support Dewey

Dewey defeats Truman!

# 1948 Presidential Election

- (1) Last survey 30 days before the election
- (2) Majority supports Dewey
- (3) Dewey defeats Truman





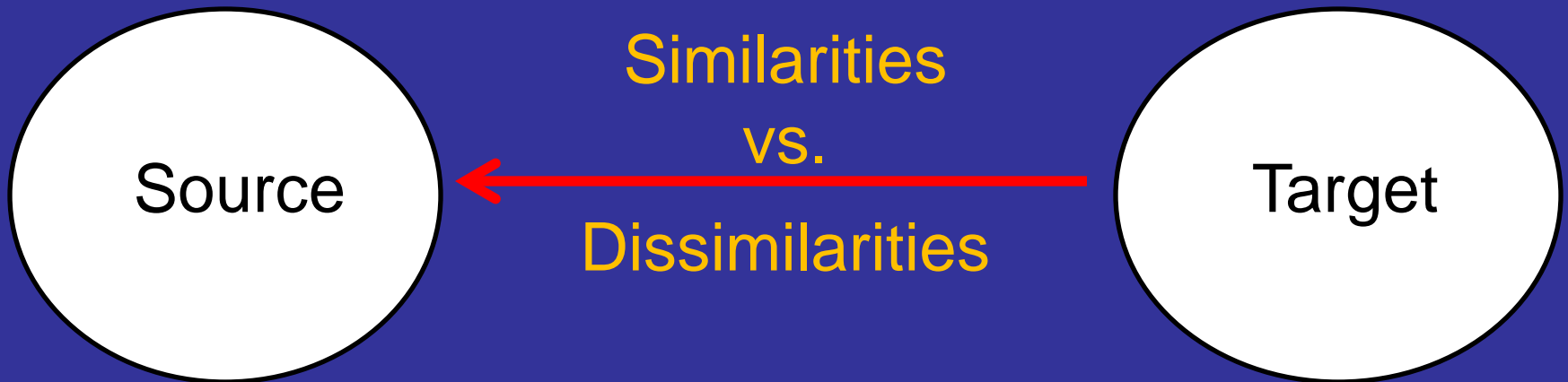
# 1948 Presidential Election

- (1) Last survey 30 days before the election
- (2) Majority supports Dewey
- (3) Dewey defeats Truman X



Fallacy of Non-Representative Sample

# REASONING BY ANALOGY



## REASONING BY ANALOGY

Comparing *common features* vs. *essential characteristics*.

- **Homology** – comparison based on common features.
- **Shared Abstraction** - comparison based on essential characteristics.

Comparing *items* is simpler than comparing *relationships*.

Example: “Hand is to palm as foot is to \_\_\_\_.”

# REASONING BY ANALOGY

(1) A belongs in Category Y

(2) B is like A

(3) B belongs in Category Y

# REASONING BY ANALOGY

(1) A belongs in Category Y

(2) B is like A in some respects

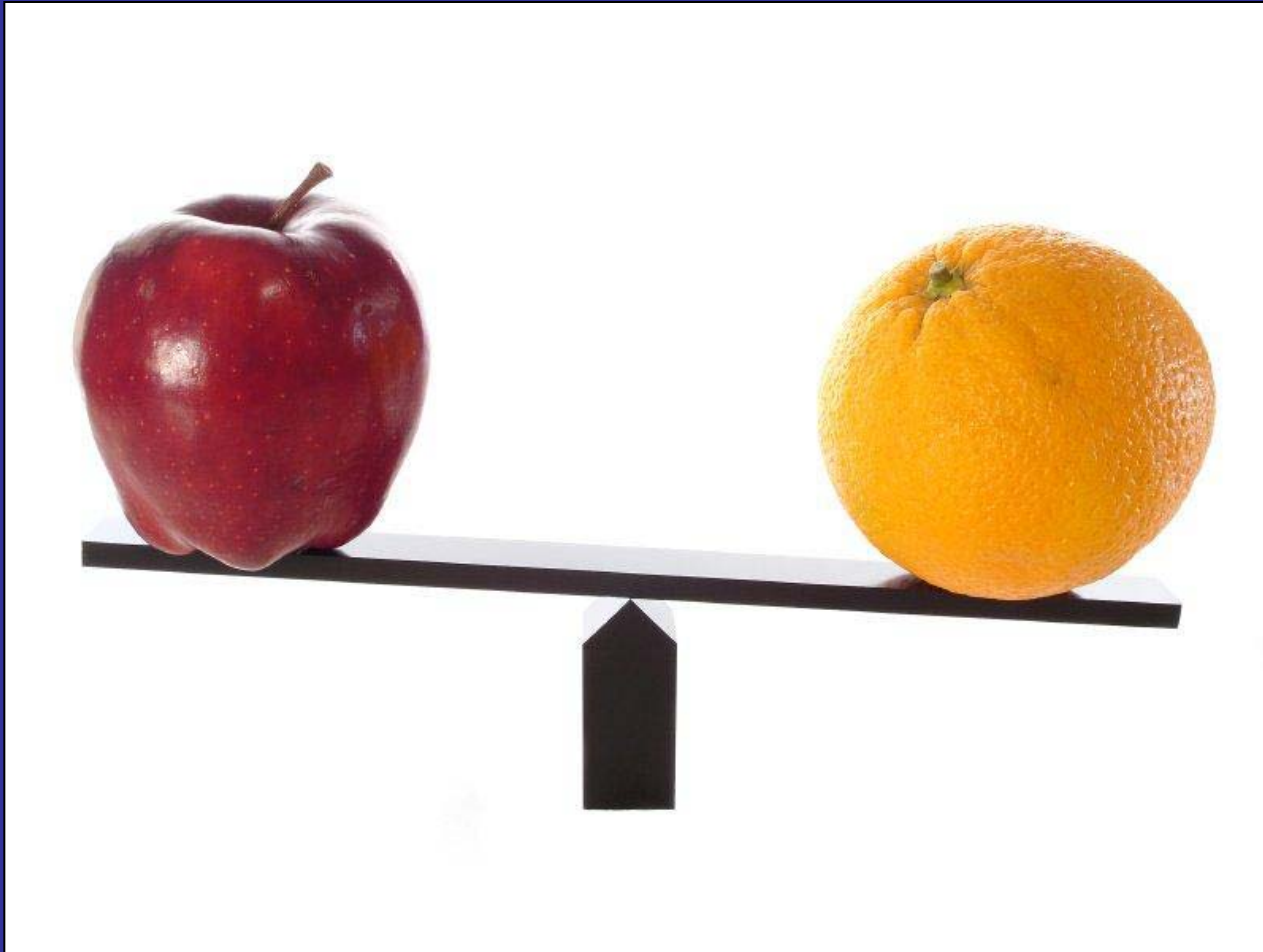
(3) B is unlike A in other respects

(4a) B belongs in Category Y

or

(4b) B does not belong in Category Y

# Fallacy of False Analogy



## DEDUCTIVE REASONING (LAW)

- (1) Innkeepers are liable for theft of property.
- (2) The defendant is an innkeeper.
- (3) The defendant is liable for theft of property.

Innkeeper Category

## DEDUCTIVE REASONING (LAW)

- (1) Ferry operators are not liable for theft.
- (2) The defendant is a ferry operator.
- (3) The defendant is not liable for theft.

Ferry Operator Category



“CLOSE CASE” DOESN’T FIT WELL INTO ESTABLISHED CATEGORIES SO USE ANALOGICAL REASONING

- (1) Innkeepers are liable for theft.
- (2) Ferry operators are not liable for theft.
- (3) Defendant’s ferry provides overnight lodging; purse stolen from private cabin
- (4a) Defendant is liable for theft.

or

- (4b) Defendant is not liable for theft.

# ANALOGICAL REASONING

If it walks like a duck,  
quacks like a duck,  
looks like a duck  
It's probably a duck.

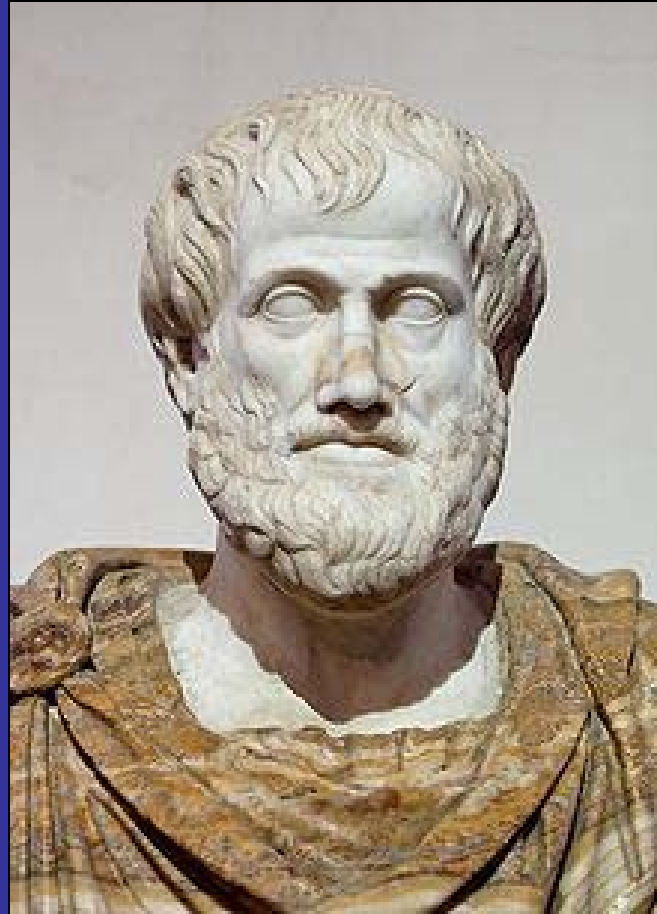
# PERSUASION

## (EFFECT OF SPEAKER ON AUDIENCE)

# THE AUDIENCE IN A LAWSUIT

- Parties
- Jury
- Trial Judge
- Appellate Panel
- Supreme Court
- Public
- History

# ARISTOTLE'S RHETORIC



# ARISTOTLE'S RHETORIC



Rhetoric--

“may be defined as the faculty of observing in any given case the available means of persuasion.”

# ARISTOTLE'S RHETORIC



Ethos

Logos

Pathos

# ARISTOTLE'S RHETORIC



**Ethos** - Character

**Logos** - Rational

**Pathos** - Feelings



## ARISTOTLE'S RHETORIC: ETHOS



Ethos --

“[There is persuasion] through character whenever the speech is spoken in such a way as to make the speaker worthy of credence. . . . And this should result from the speech, not from the previous opinion that the speaker is a certain kind of person.”

Aristotle

## ARISTOTLE'S RHETORIC: LOGOS



Logos --

is an argument that persuades through reasoning, often sequential steps, and often arguing from premises to conclusions. This reasoning is usually in the form of a partial Syllogism, which Aristotle called an “Enthymeme,” that invokes themes familiar to the audience.

# ARISTOTLE'S RHETORIC: PATHOS



Pathos --

is influencing the audience by emotional appeal, rather than logical argument. Emotions might include love, fear, patriotism, guilt, hate, joy, pity, attraction, etc.

Done by using words in a way that their emotive meaning affects the audience independently from their logical meaning.

# LOGOS

- Deductive reasoning (syllogism; enthymeme; implication)
- Inductive reasoning (generalization)
- Analogical reasoning (comparison)
- Fallacious reasoning (illogical arguments)
- Indirect argument (negation leads to contradiction)

# LOGOS: PERSUASION THROUGH DEDUCTIVE REASONING

- Syllogism (overlapping Premises lead with certainty to Conclusion)
- Enthymeme (Syllogistic argument, usually with an unstated Premise, using themes that will resonate with the audience; Conclusion may not be certain but must be believable)
- Implication ( $P \rightarrow Q$ ;  $\text{not-}Q \rightarrow \text{not-}P$ )

# LOGOS: PERSUADING THROUGH INDUCTIVE REASONING

- Drawing general principles from particular instances
- Statistical Generalization

# LOGOS: PERSUADING THROUGH REASONING BY ANALOGY

Showing the problem at hand is like another, more familiar problem, and should be treated the same way.

# PATHOS

- Sympathetic facts
- Antagonistic facts
- Narration (arrangement of facts)
- Emotive words
- Similes
- Evocative symbolism



# PATHOS



Obama uses the flag for Pathos

# PATHOS



Reagan used the flag for Pathos  
Conservatives now use Reagan for Pathos

# Five Canons of Rhetoric

- *Invention* – designing the argument
- *Arrangement* – finding an effective order
- *Style* – how things are said
- *Memory* – extemporize or memorize; don't read
- *Delivery* – voice, posture, dress, gesture

# The First Canon of Rhetoric: Invention

In designing an argument, you must consider:

- (1) the audience's needs, desires, thoughts, prejudices, etc.
- (2) available evidence (facts, testimony, statistics, maxims, examples, laws)
- (3) appeal to the audience (Ethos, Pathos, Logos)
- (4) topics (commonplaces that will synch with the audience);  
and
- (5) timing and opportunity, coupled with accurate targeting  
(Kairos)

# Fallacies of Argumentation

- Accident
- Ambiguity
- Amphiboly
- Appeal to Authority
- Appeal to Belief
- Appeal to Emotion
- Appeal to Fear
- Appeal to Flattery
- Appeal to Novelty
- Appeal to Pity
- Appeal to Ridicule
- Appeal to Tradition
- Argumentum ad Hominem

# ADDING COLOR TO ARGUMENTS



## COLORING TOOLS

- *Humor*--biased vs. neutral
- *Narrative*—clock time vs. story time; Grand Narratives
- *Sequence*—climactic vs. anti-climactic
- *Comparisons*—similarities vs. contrast
- *Invocations*—quoting Jefferson, Lincoln, JFK
- *Emphasis*—voice modulation, gesturing
- *Figures of Speech*—allusion, anaphora, hyperbole, innuendo, juxtaposition, metaphor, paradox, personification, simile, repetition, rhetorical questions, understatement, etc.
- *Rhetorical Fallacies*—arguments traditionally said to be improper but that are nonetheless effective

# MODERN ARGUMENT THEORY



# DEFEASIBLE ARGUMENTS

Professor John L. Pollock championed defeasible arguments:

- In deductive logic, arguments are not defeasible (subject to defeat).
- In life, arguments are almost always defeasible.
- *Defeasible arguments* are taken as true until they are disproved.
- A defeasible argument is our best judgment based on the information we have received so far. We remain open-minded to revision.
- Pollock describes defeasible argument “defeaters,” either “*undercutting defeaters*” or “*rebutting defeaters*.”

# ARGUMENT SCHEMES

Canadian Professor Douglas Walton has developed syllogistic patterns of common *Argument Schemes* (including fallacies) with matching *Critical Questions*.

The Argument Scheme for **Argument From Expert**

**Major Premise:** Source E is an expert in subject domain S containing proposition A.

**Minor Premise:** E asserts that proposition A in domain S is true (false).

**Conclusion:** A should be accepted as true.

# ARGUMENT SCHEMES

## Argument from Expert

### Critical Questions

1. *Expertise Question*: How credible is E as an expert source?
2. *Field Question*: Is E an expert in the field that A is in?
3. *Opinion Question*: What did E assert that implies A?
4. *Trustworthiness Question*: Is E personally reliable as a source?
5. *Consistency Question*: Is A consistent with what other experts assert?
6. *Backup Evidence Question*: Is E's assertion based on evidence?

# KAIROS

This is the way Carl Glover put it:



The archer must exercise 'due measure and proportion' in aiming the arrow and drawing the bow string; he must hit a 'vital part of the body' to fell his prey; he must release the arrow at the 'exact or critical time' to strike a moving target.



The End