Block 2: Structured argumentation

Argument

"An argument is a set of statements (propositions), made up of three parts, a conclusion, a set of premises, and an inference from the premises to the conclusion."

(D. N. Walton, 2009)

Strict and defeasible rules

Strict Rules

If A and B then **always** C

All tuba players are mortal.
I am a tuba player.
I am mortal.

Defeasible rules

If A and B then **usually** C

After complaints, I don't play the tuba.
Neighbours complained.
I don't play the tuba...

Unless I have a concert.

Statements, axioms, ordinary premises

Statements

Facts, beliefs, derivations, …

Axioms

Facts

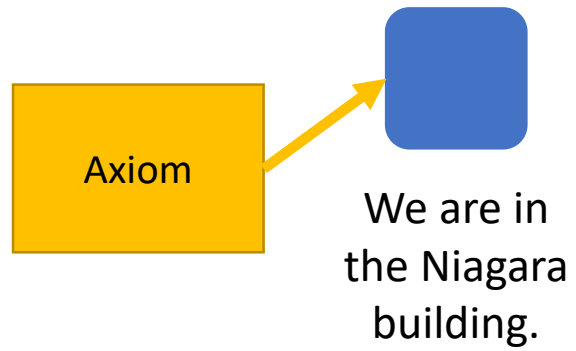We are in the Niagara building.

Ordinary premises

Things you believe

The Niagara building is beautiful.

Constructing arguments

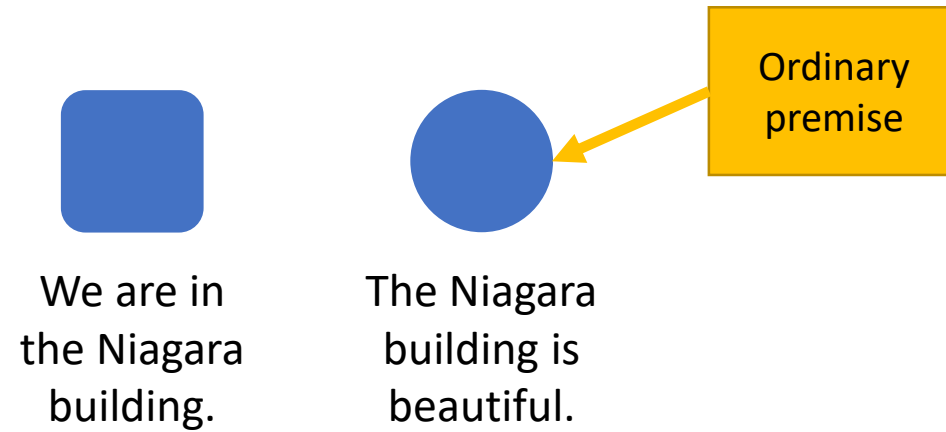We are in
the Niagara
building.

Constructing arguments

Axiom

We are in the Niagara building.

Constructing arguments

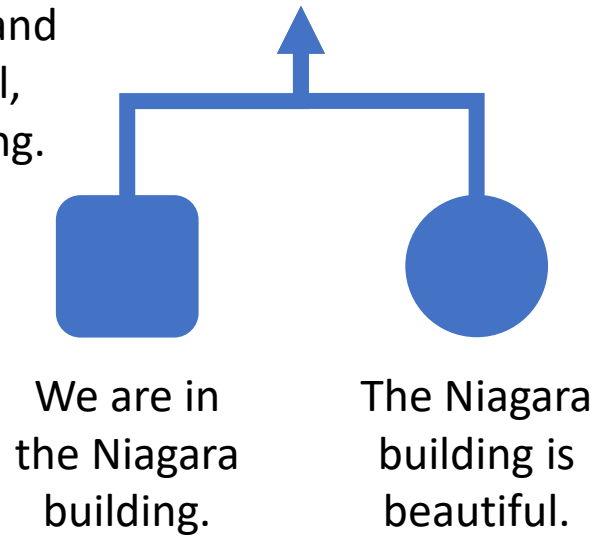We are in the Niagara building.

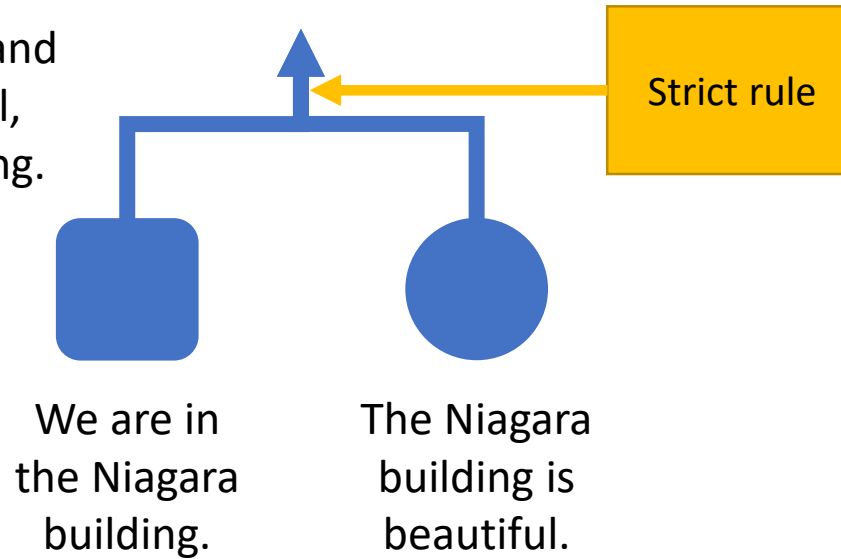The Niagara building is beautiful.

Constructing arguments

We are in the Niagara building.
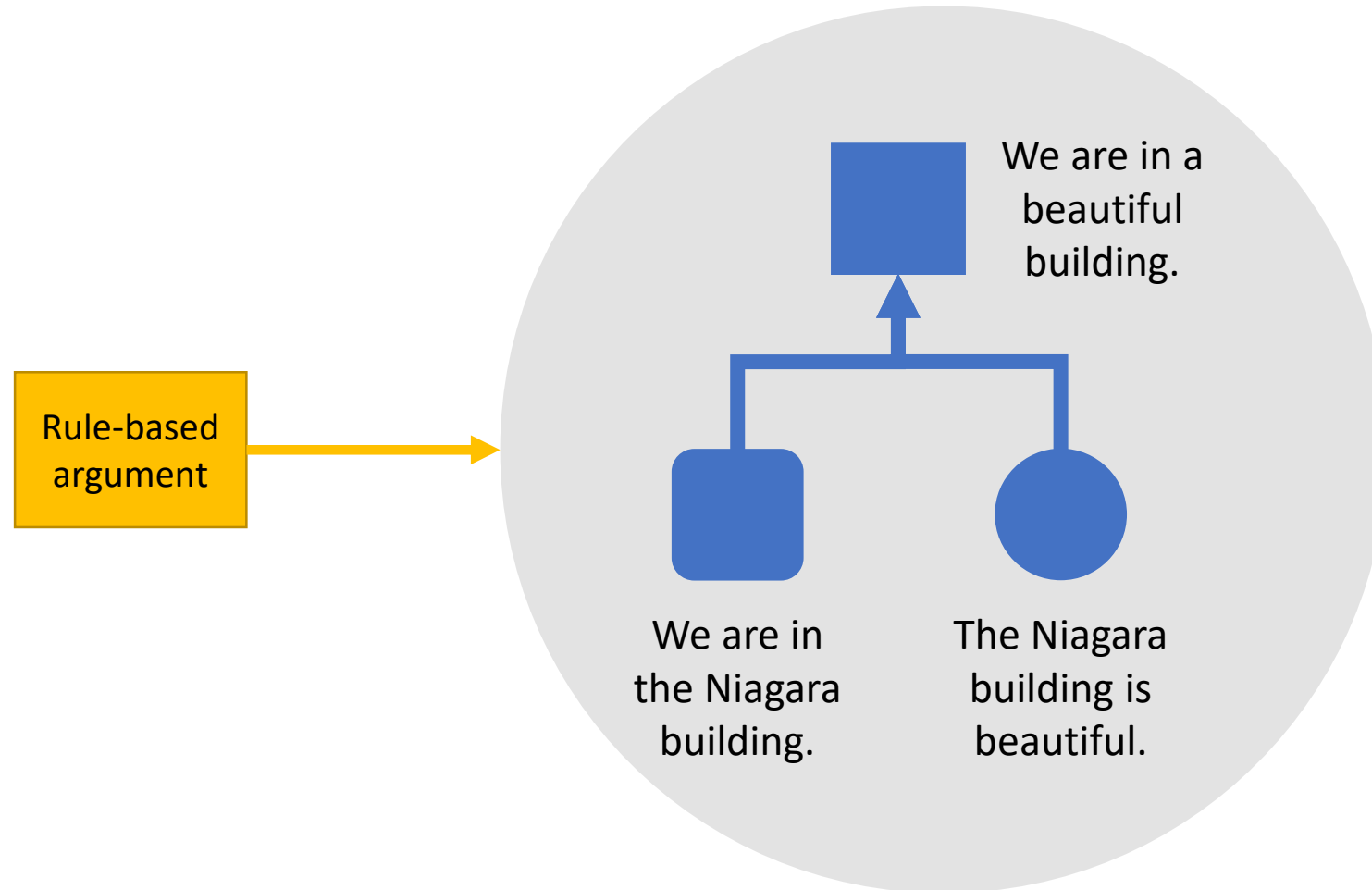
The Niagara building is beautiful.

Ordinary premise

Constructing arguments

If we are in the Niagara building and the Niagara building is beautiful, then we are in a beautiful building.

We are in the Niagara building.

The Niagara building is beautiful.

Constructing arguments

If we are in the Niagara building and the Niagara building is beautiful, then we are in a beautiful building.

Strict rule

We are in the Niagara building.

The Niagara building is beautiful.

Constructing arguments

We are in a beautiful building.

If we are in the Niagara building and the Niagara building is beautiful, then we are in a beautiful building.

We are in the Niagara building.

The Niagara building is beautiful.
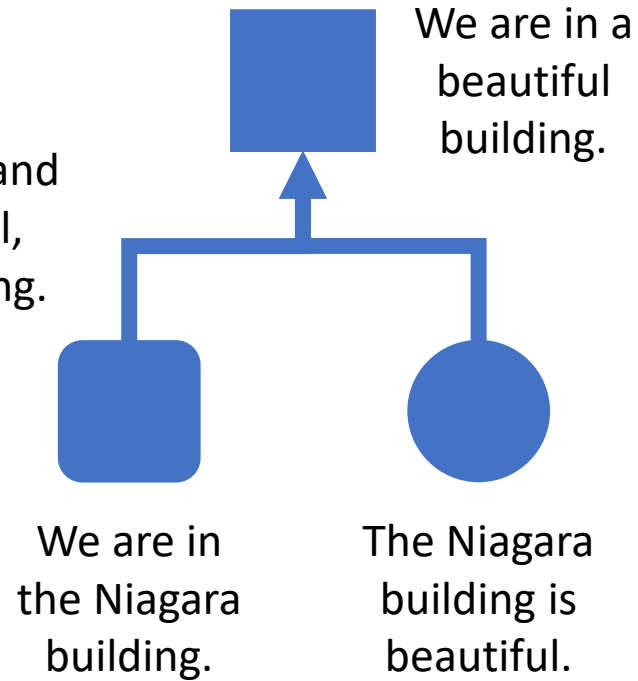
Constructing arguments

Enthymemes
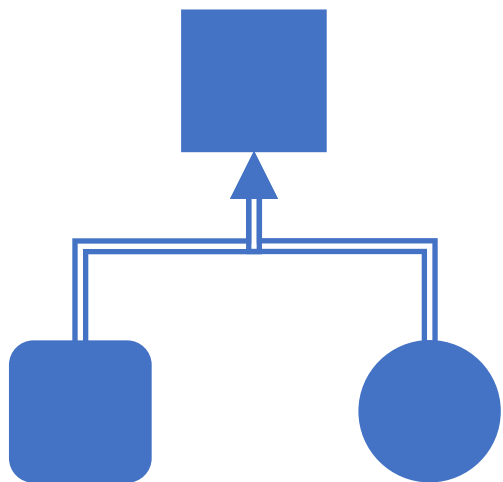
Enthymemes
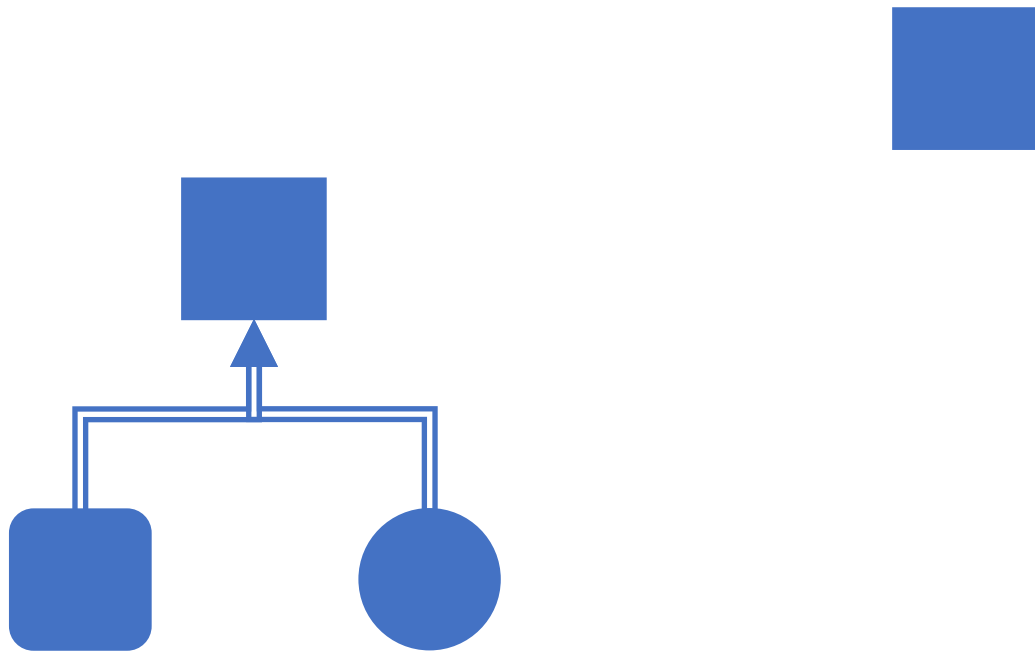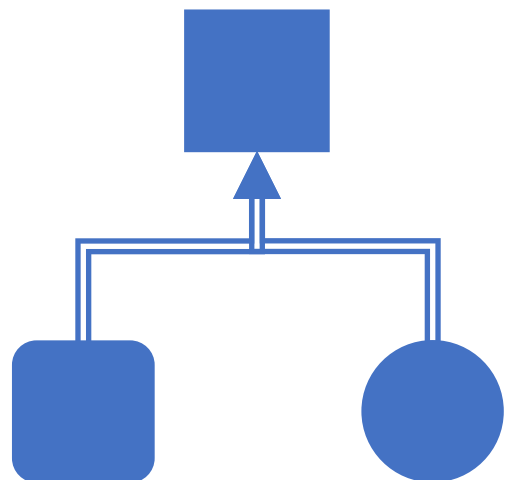
Enthymemes
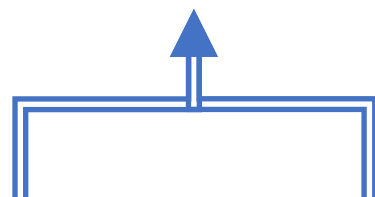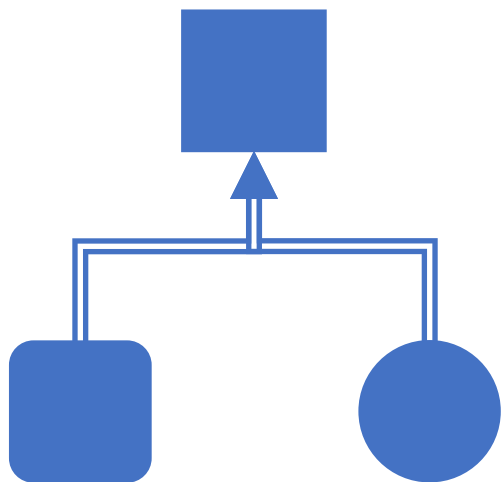
Enthymemes
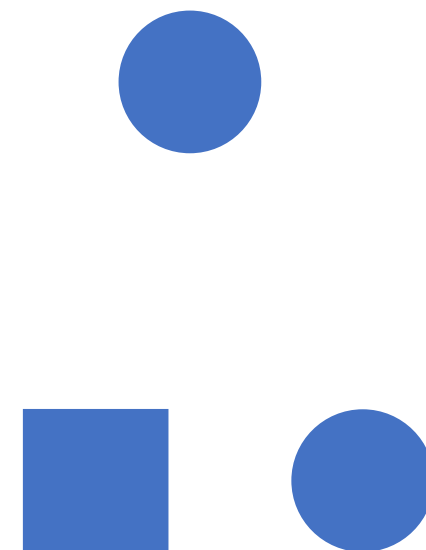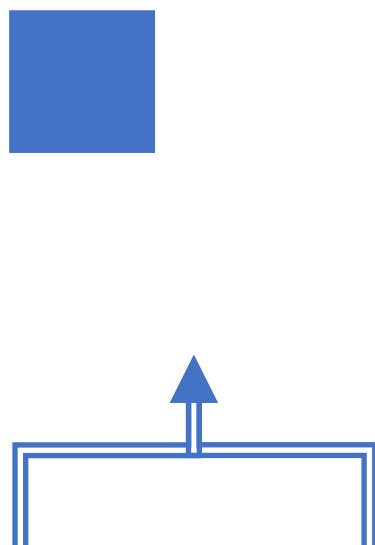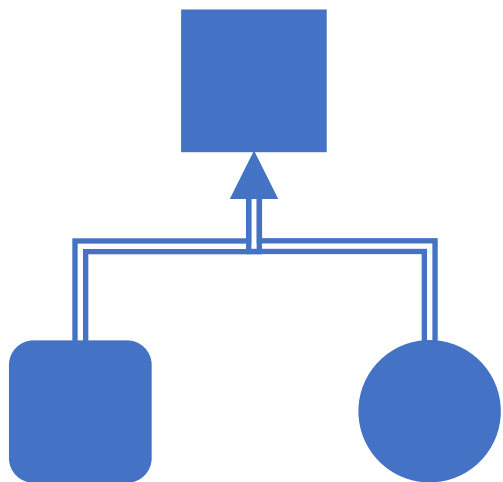
Enthymemes
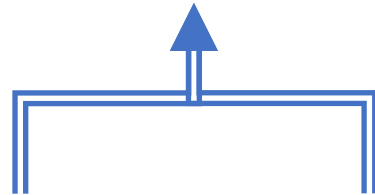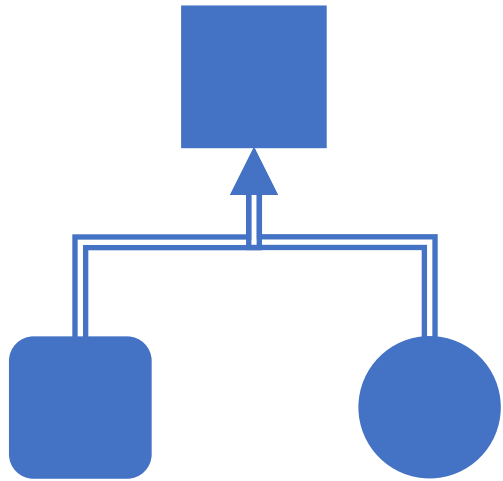
Enthymemes

Arguments with **incomplete logical structure**.
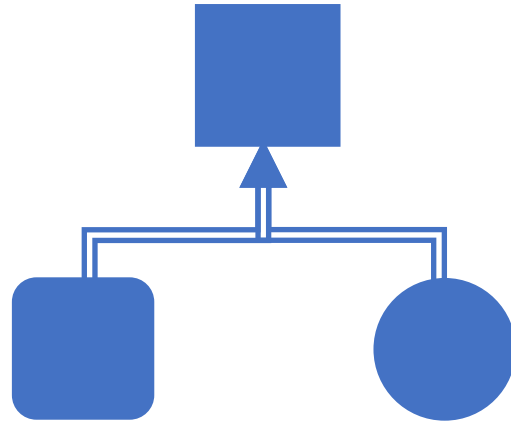
Enthymemes

Enthymemes

Backward extension

Enthymemes

Backward extension
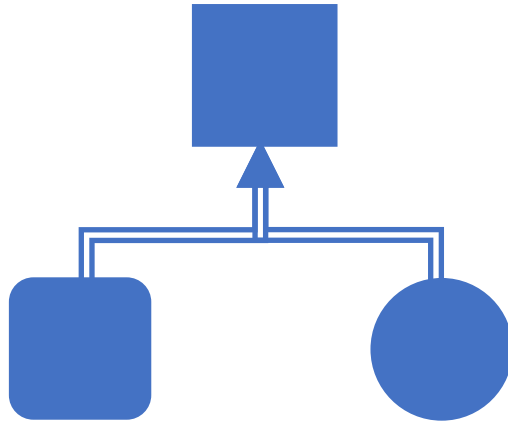
Enthymemes

Backward extension

Locutions: *why, because*

Enthymemes

Enthymemes

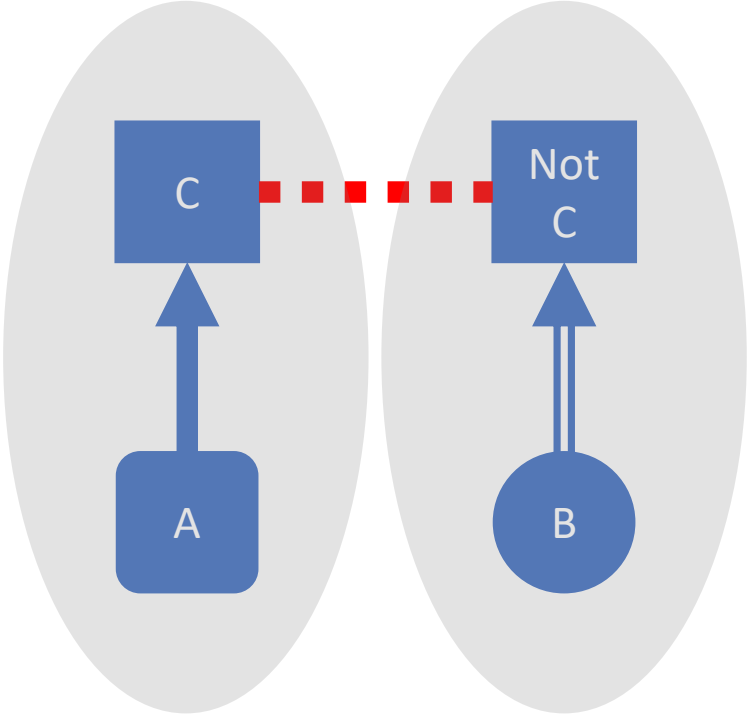**Forward extension**

Enthymemes
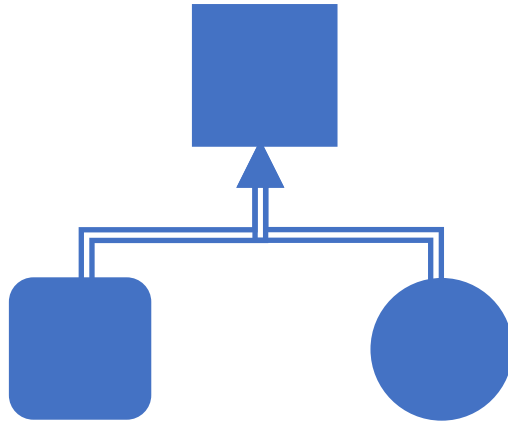
Forward extension

Enthymemes

Forward extension

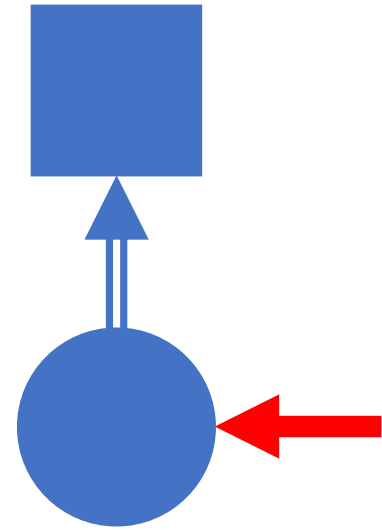Locutions: *and-so*, *hence*
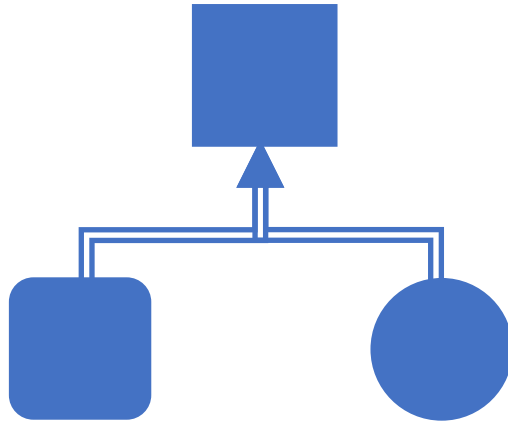
Argument strength

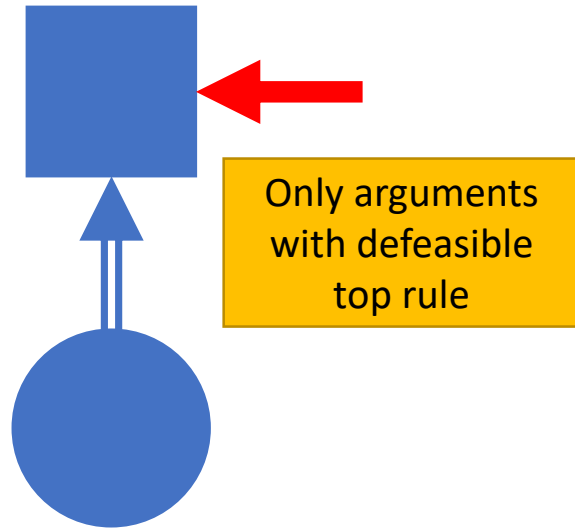# Argument strength
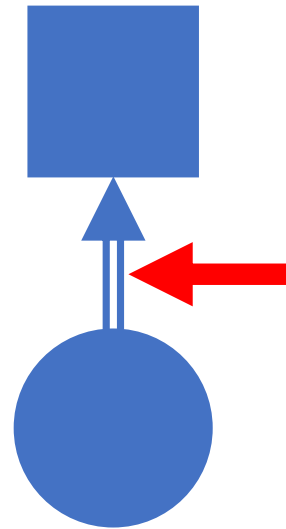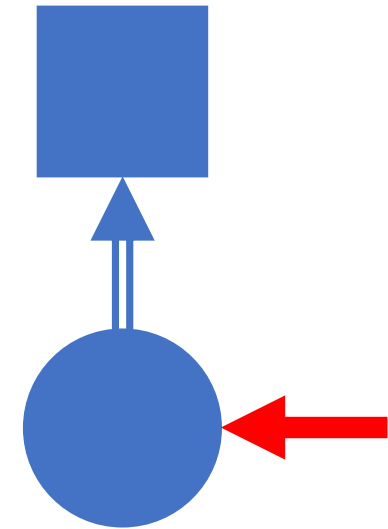
Which is stronger?

Points of attack

Rebuttal Undercutting Undermining

Points of attack

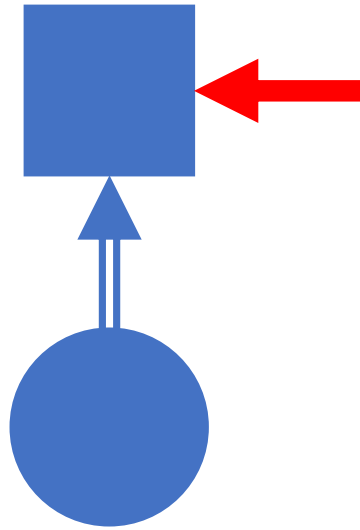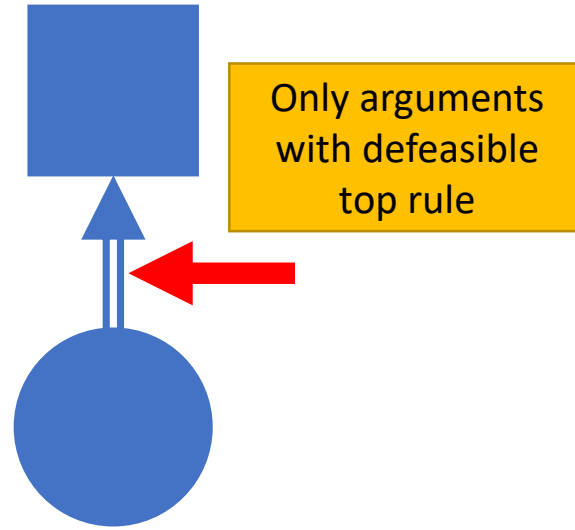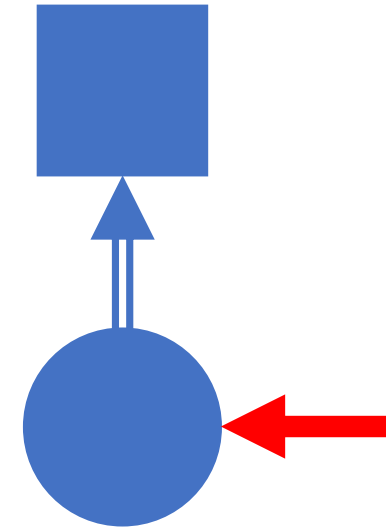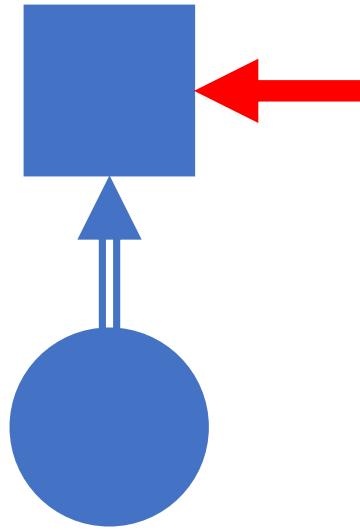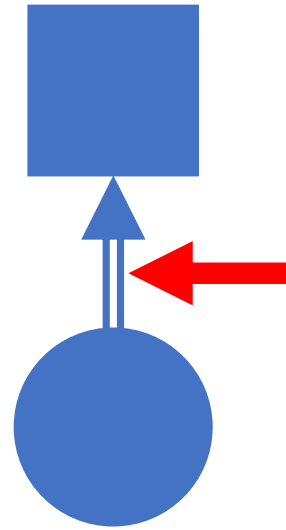Only arguments with defeasible top rule

Rebuttal   Undercutting   Undermining

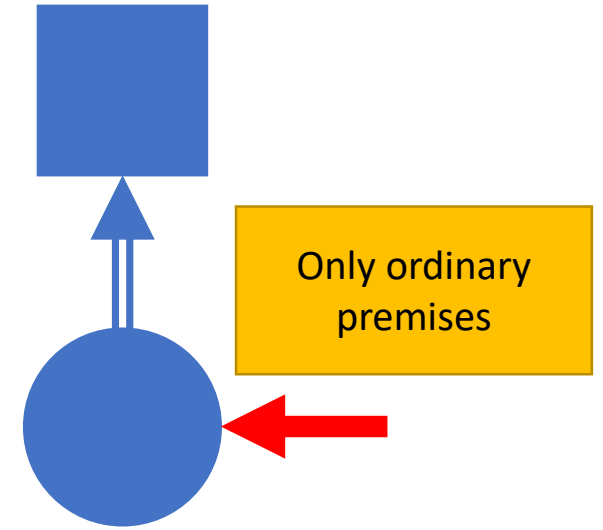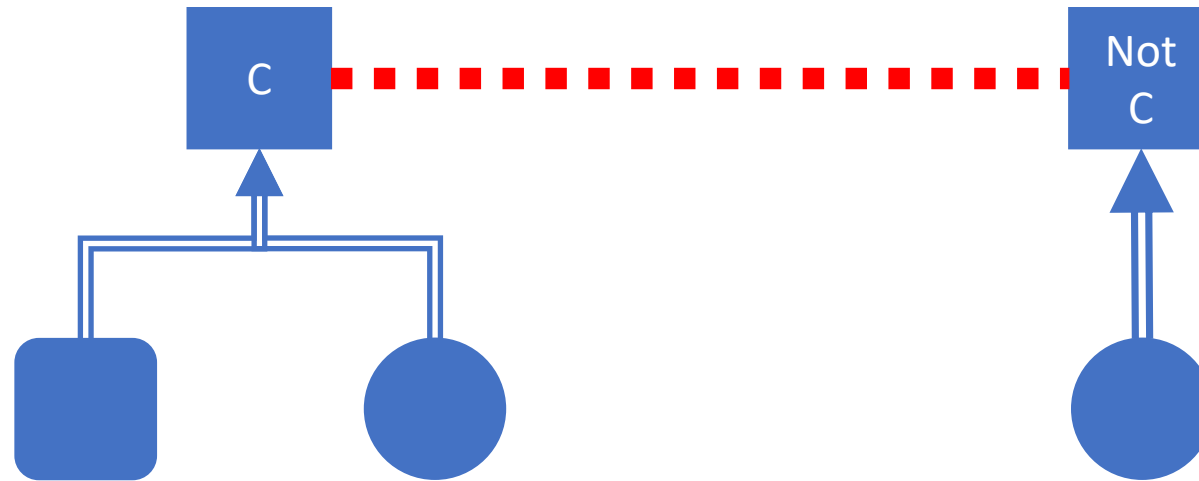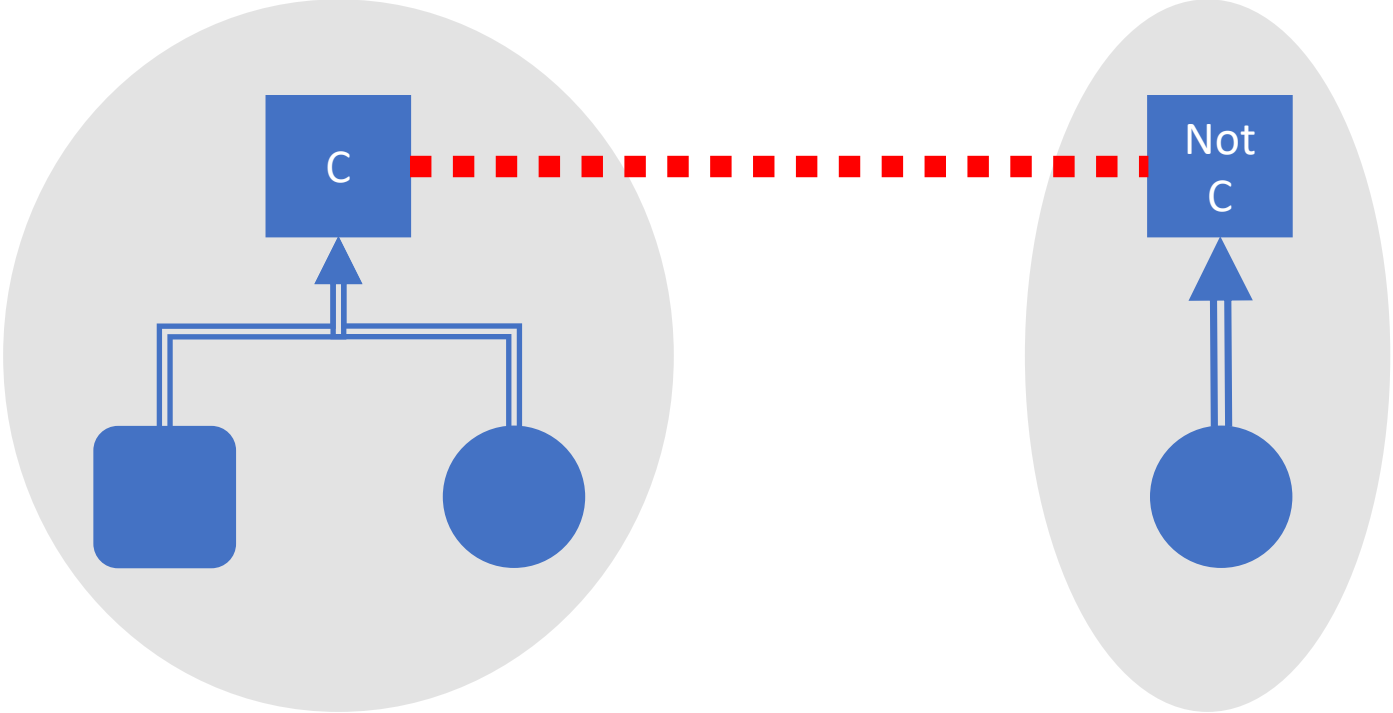# Points of attack

Rebuttal   Undercutting   Undermining

Only arguments with defeasible top rule

Points of attack

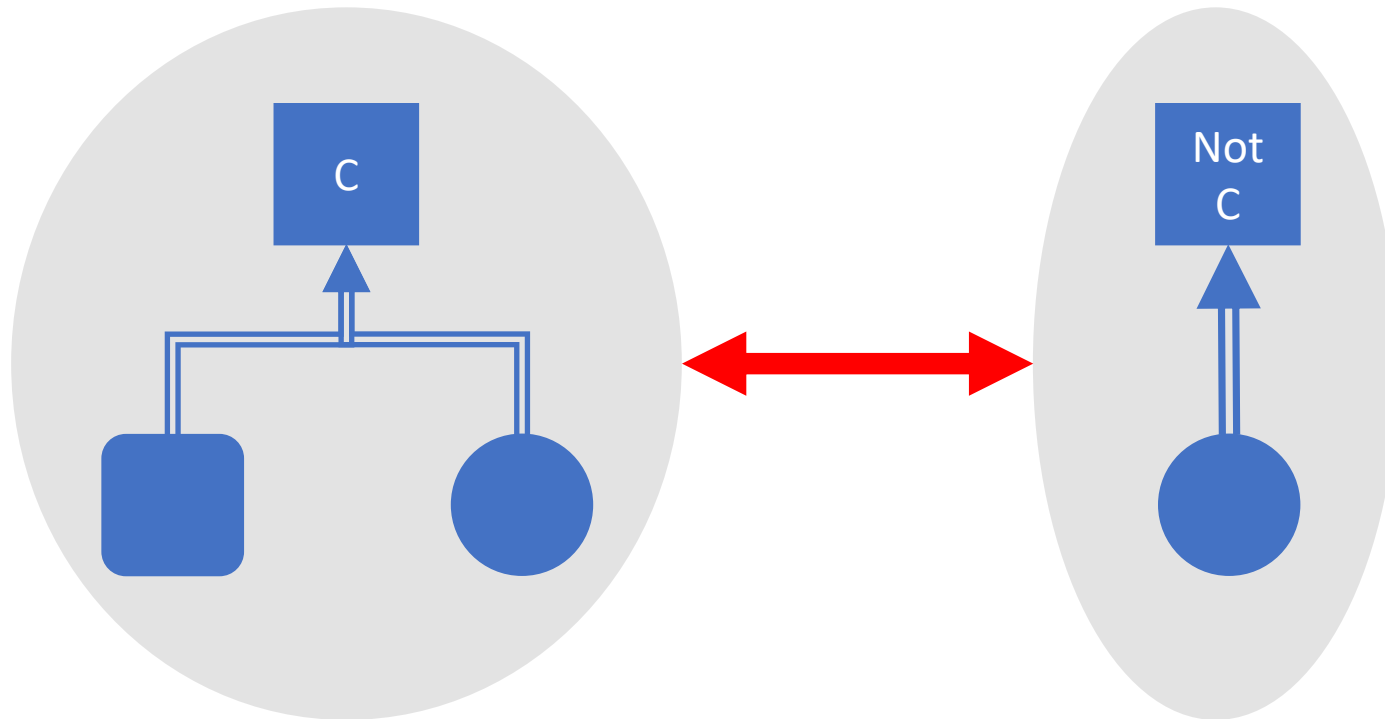Rebuttal   Undercutting   Undermining

Only ordinary premises

Rebuttal attack (symmetric)

Rebuttal attack (symmetric)

Rebuttal attack (symmetric)

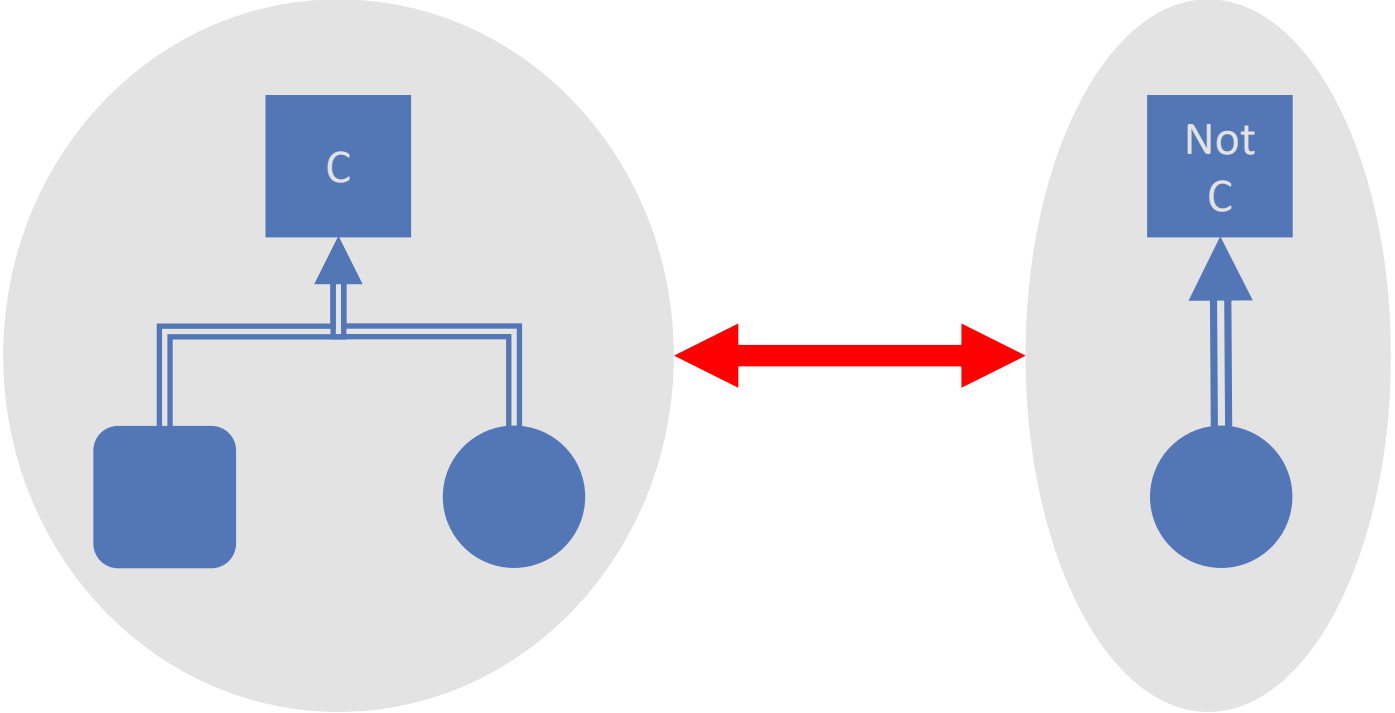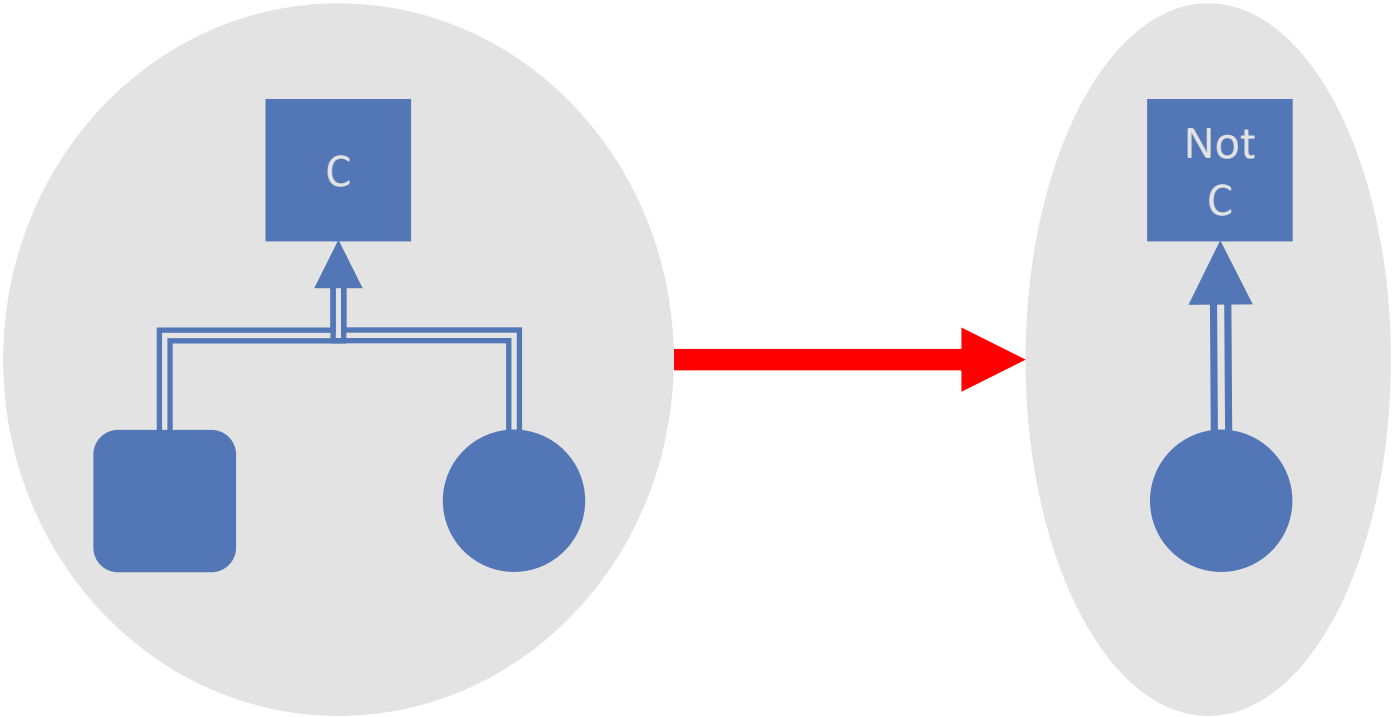# Rebuttal attack (symmetric)

Rebuttal attack (asymmetric)

Rebuttal attack (asymmetric)

Undercutting attack (always asymmetric)

Undercutting attack (always asymmetric)

Undercutting attack (always asymmetric)

Undermining attack (symmetric)
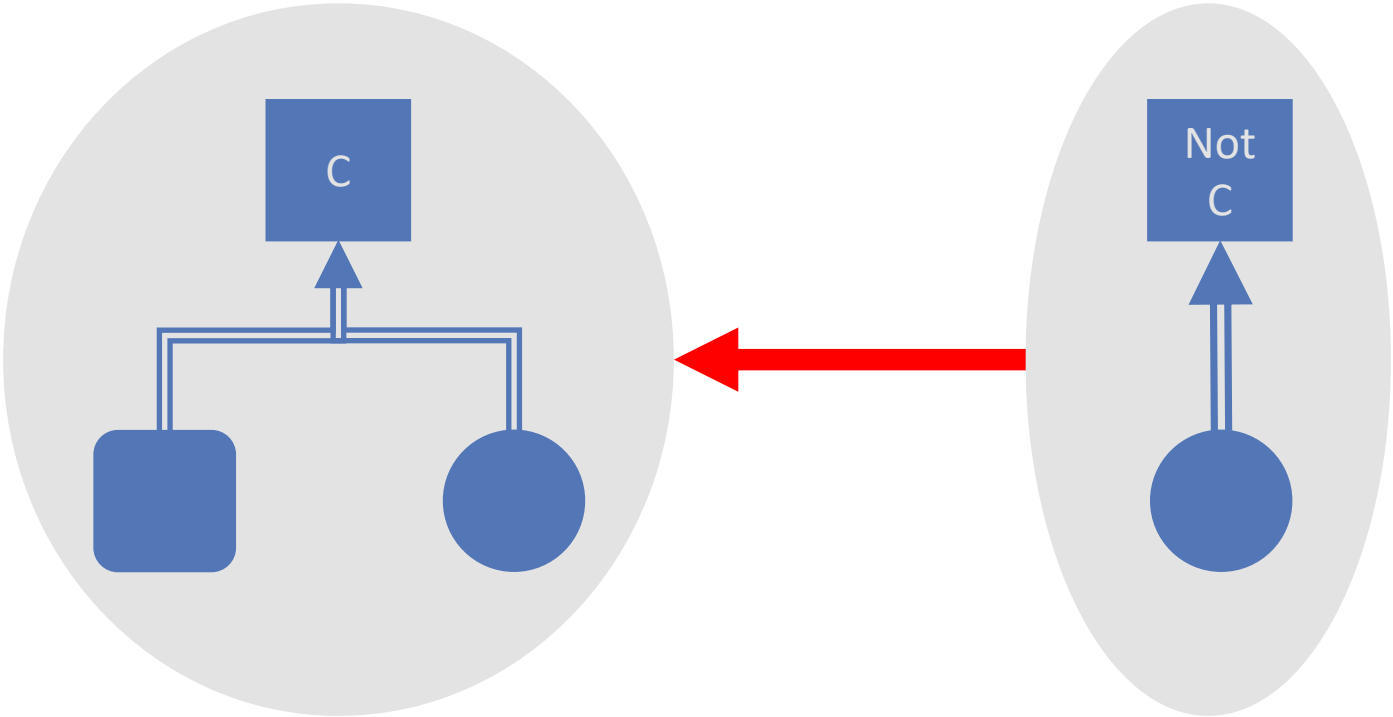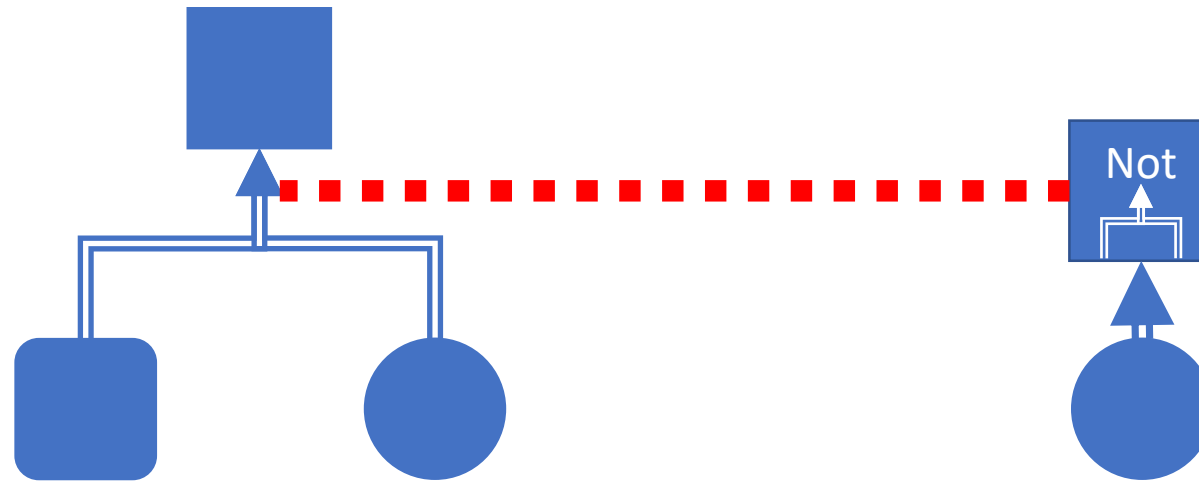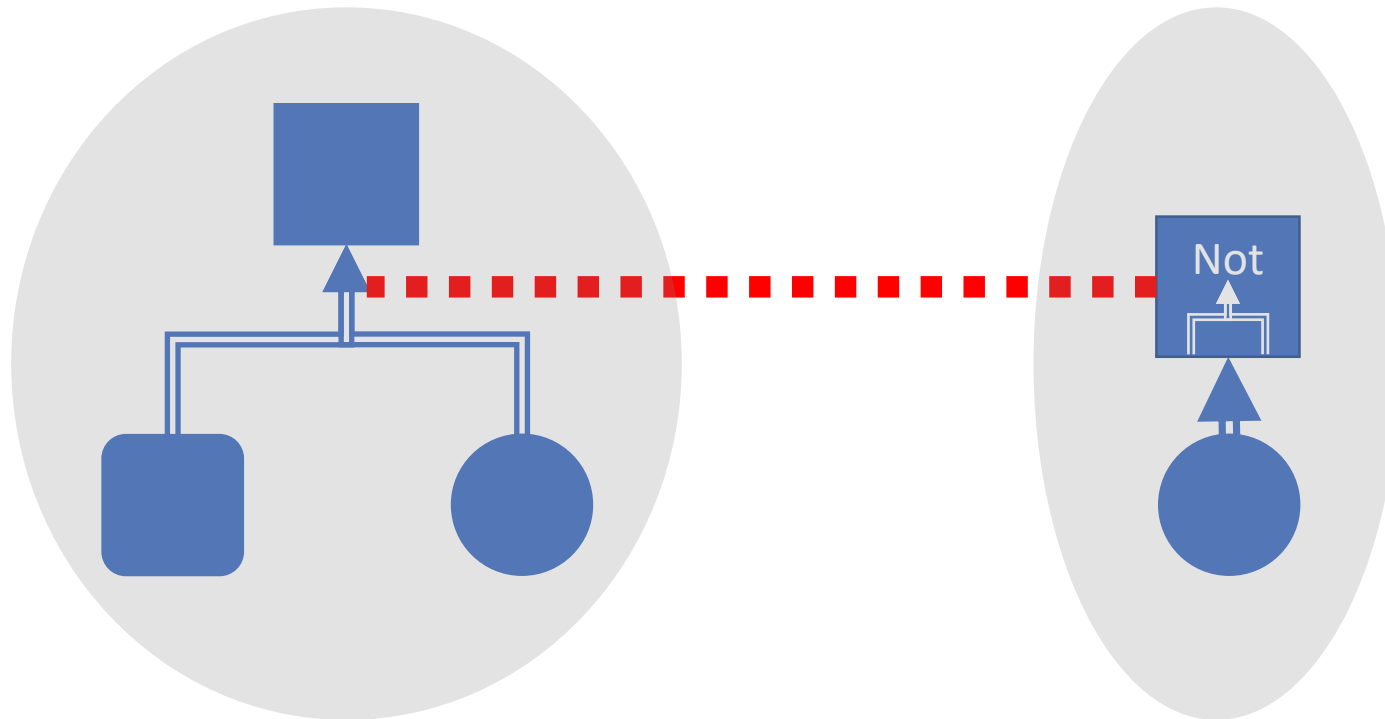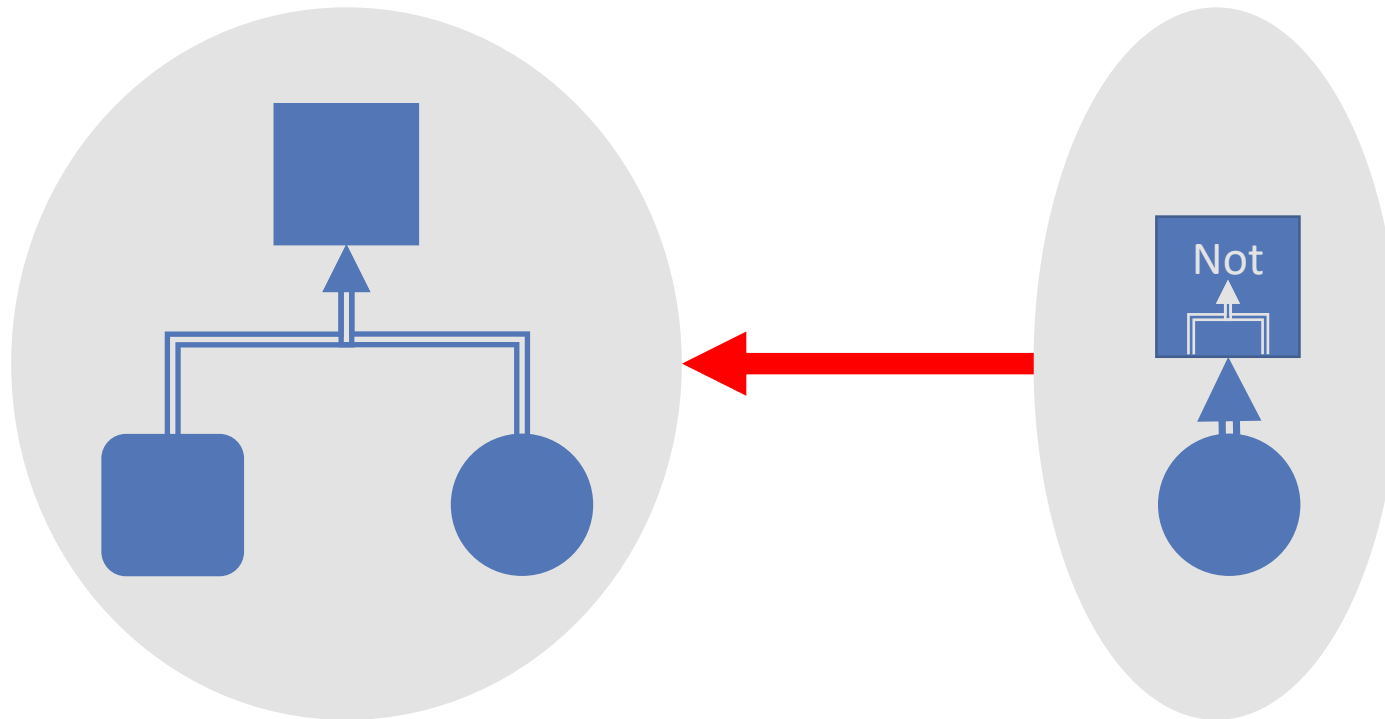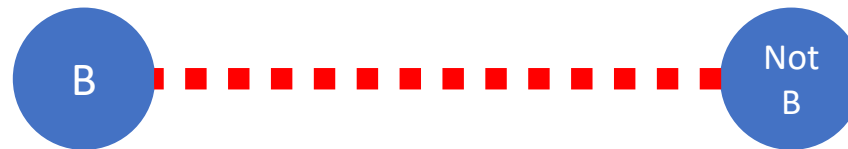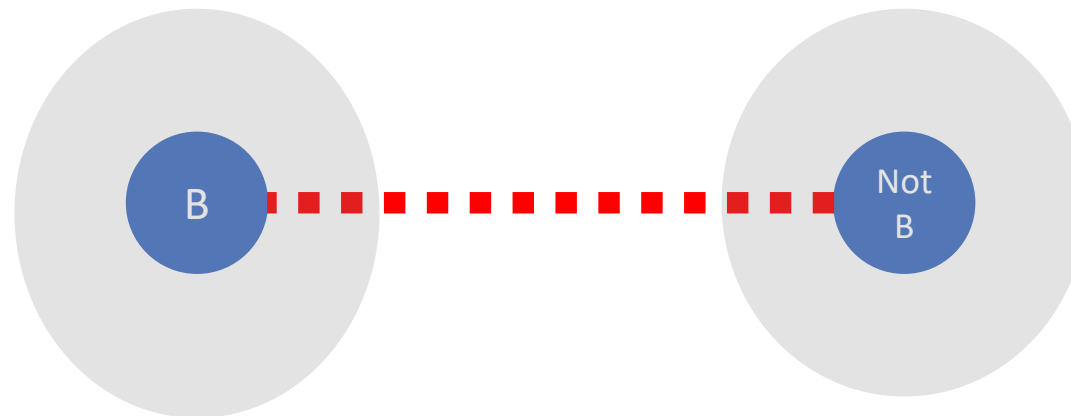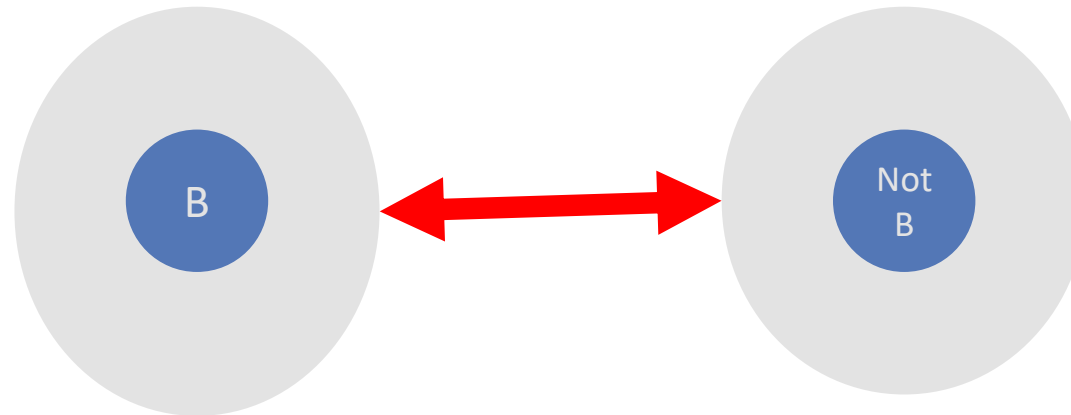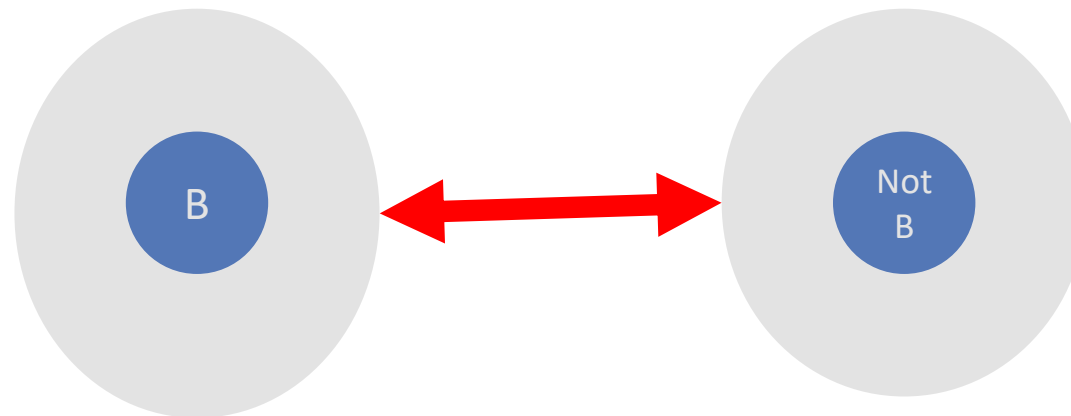
Undermining attack (symmetric)

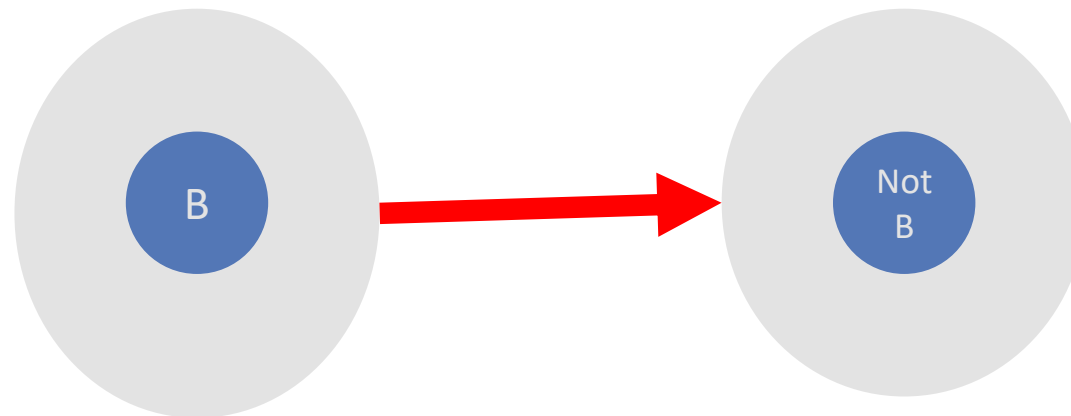# Undermining attack (symmetric)

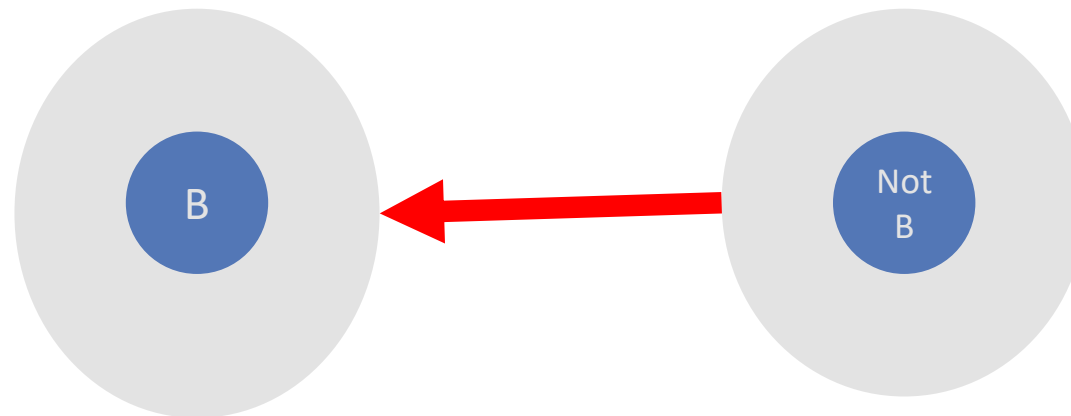# Undermining attack (symmetric)

If "B" is equally strong as "Not B"

B

Not B

Undermining attack (asymmetric)

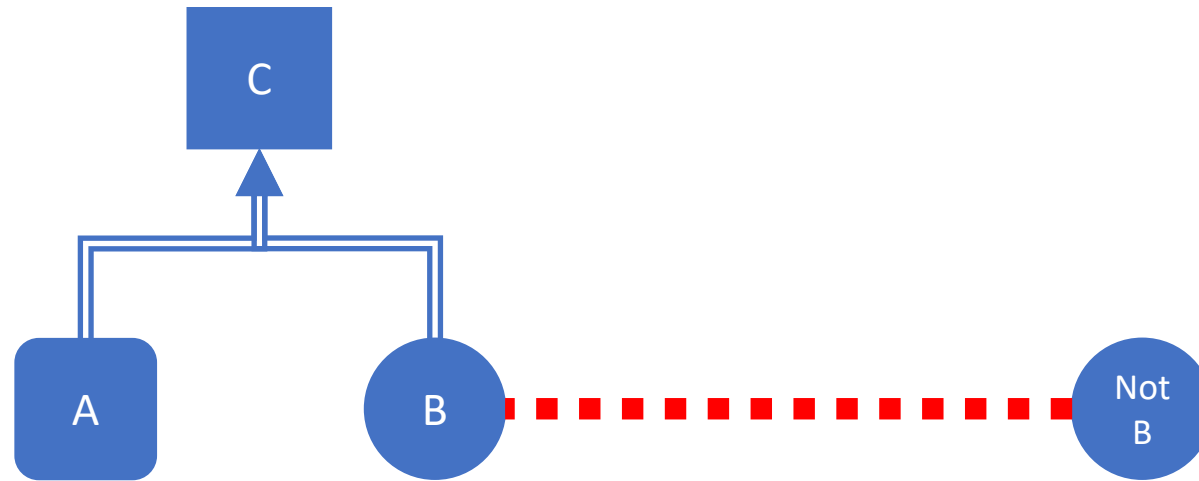If "B" stronger than "Not B"

Undermining attack (asymmetric)
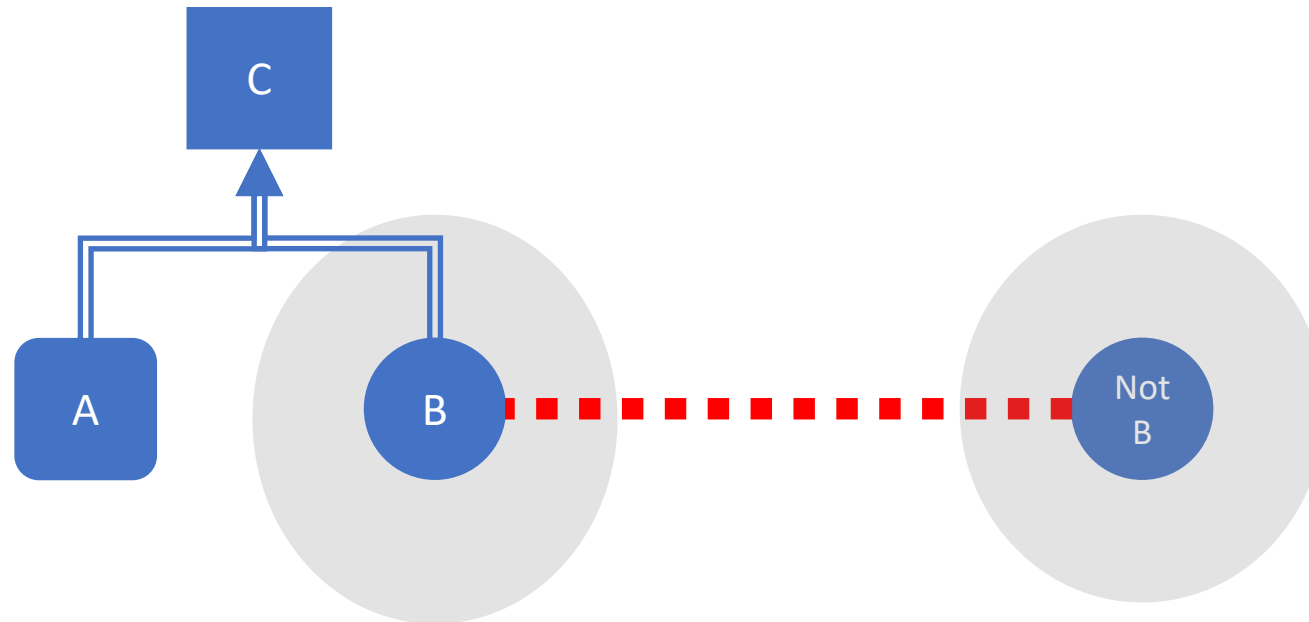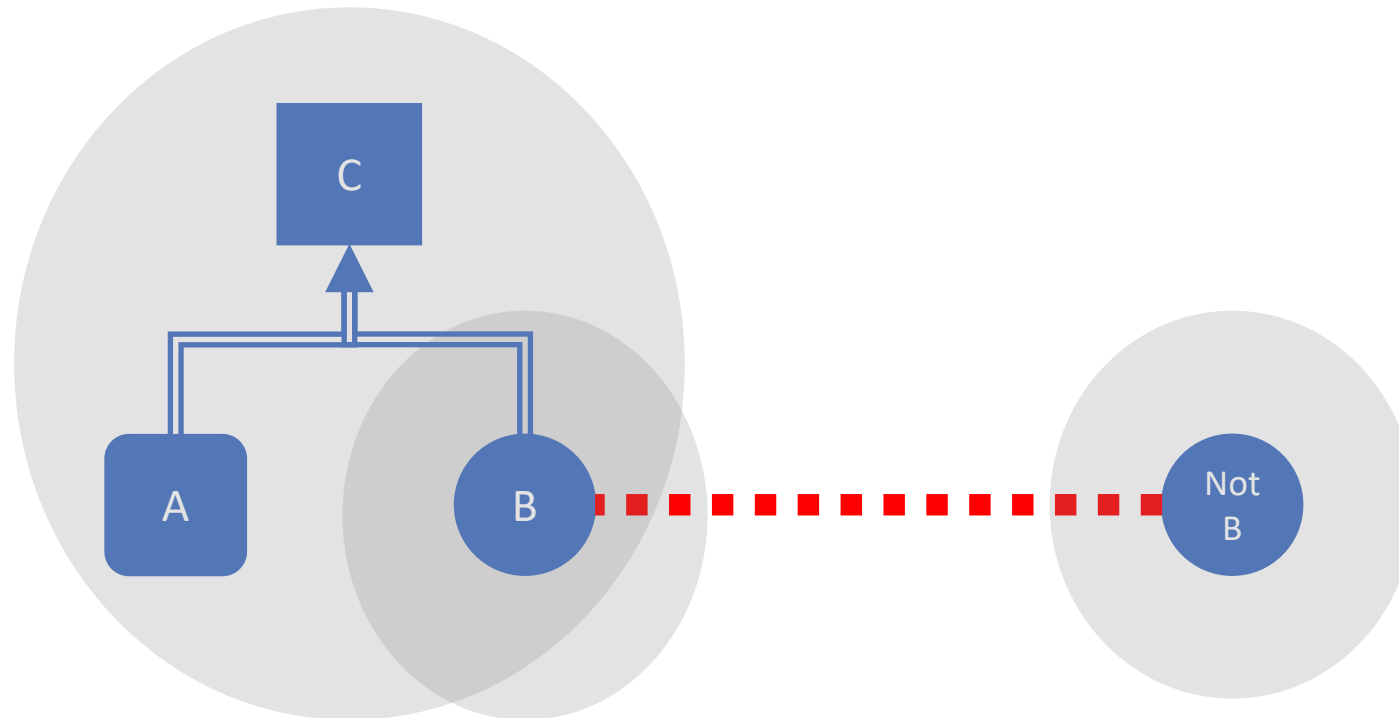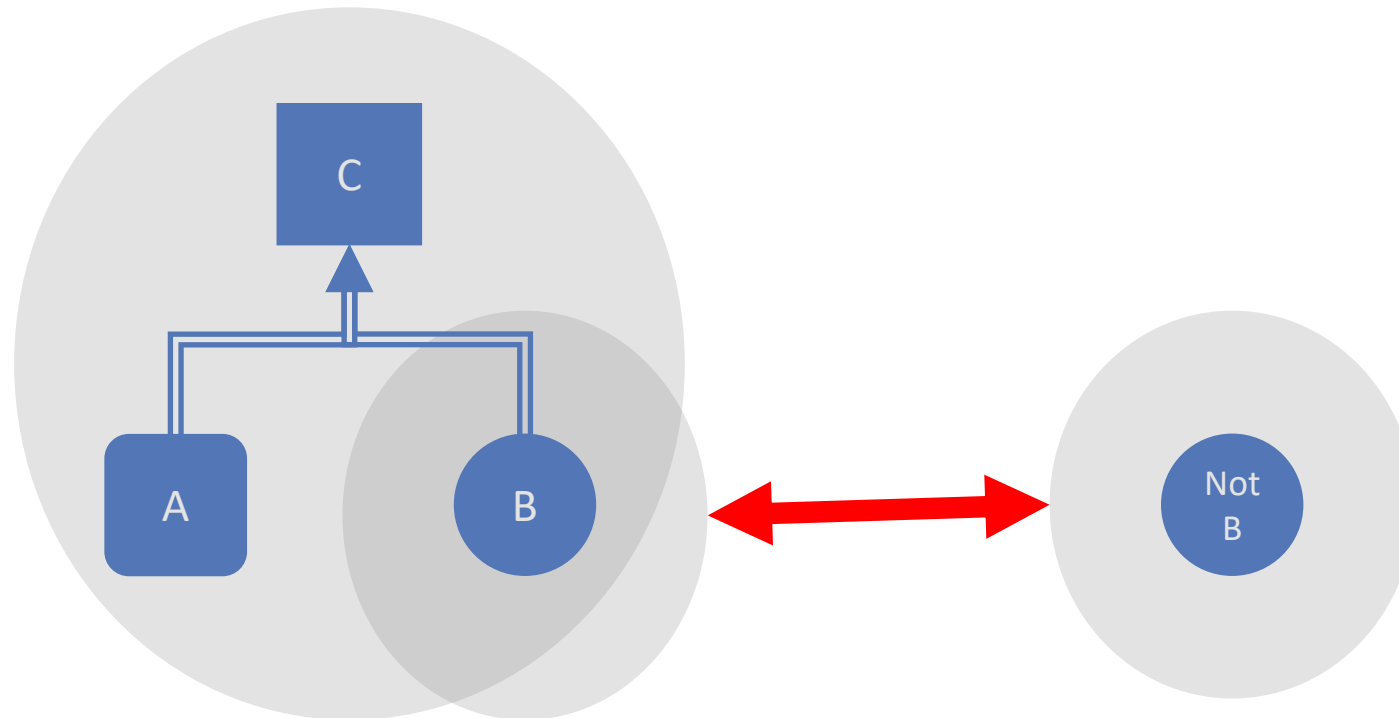

If "B" weaker than "Not B"
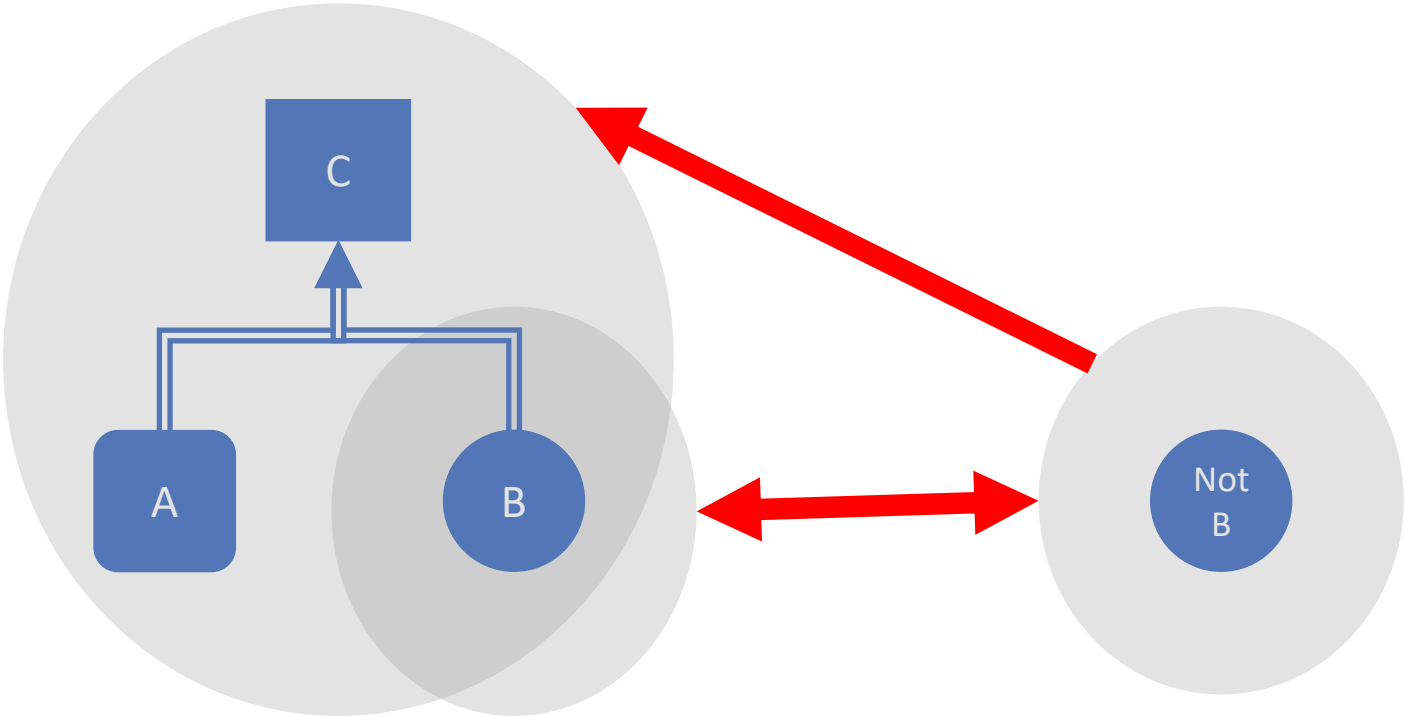
Indirect attacks

Indirect attacks

Indirect attacks

Indirect attacks

Indirect attacks

Exercise

- Go back to the arguments in your discussion.
- Can you structure them into an argumentation framework?
- Do you notice enthymemes?
- Where do they attack each other, using which attack types?

Argumentation

"A verbal, social, and rational activity aimed at convincing a reasonable critic of the acceptability of a standpoint by putting forward **a constellation of propositions** justifying or refuting the proposition expressed in the standpoint."

(F. H. Van Eemeren and R. Grootendorst, 2004)

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