

## Modus Ponens:

$$(A \rightarrow B) \wedge A \rightarrow B$$

i.e. if some rule:

$$A \rightarrow B$$

is considered true,

**AND** a fact is observed:

$$A$$

is true,

then it **MUST** be that:

$$B$$

is true.

Example rule:

**IF** it is raining **THEN** the roof gets wet;

observed fact:

it is raining;

**CORRECT** conclusion:

**the roof gets wet.**

## Flawed Modus Ponens Inversion:

observed fact:

the roof gets wet;

**WRONG** conclusion:

**it is raining.**

**OR**

might the fire brigade be doing its job?

**OR**

is Rudolph the reindeer taking a leak?

**Modus Tollens:**  $(A \rightarrow B) \wedge \neg B \rightarrow \neg A$

i.e. if some rule:  $A \rightarrow B$  is considered true,  
**AND** a fact is observed:  $B$  is false,  
 then it **MUST** be that:  $A$  is false.

Example rule: **IF** it is raining **THEN** the roof gets wet;  
 observed fact: the roof is **NOT** getting wet;  
**CORRECT** conclusion: it is **NOT** raining;  
**AND** the fire brigade is **NOT** active on that spot;  
**AND** Rudolph the reindeer is **NOT** misbehaving.

**Modus Tollens:** **ABSENCE** of a *consequence* implies  
**ABSENCE** of *ALL* thinkable causes.

**Modus Ponens:** **PRESENCE** of a *cause* implies  
**PRESENCE** of its consequence.

## Totalitarian principle:

(used by Murray Gell-Mann [physics Nobel Prize 1969; predicted quarks] & others)

# Everything not forbidden is compulsory.

## BUNKUM! FLAPDOODLE!

In The Netherlands, public nudity is forbidden only at or near public places that are unsuitable for nude recreation and the law does not specify any suitability criteria<sup>1</sup>.

Would this imply it is mandatory nearly everywhere?

### Correct:

Anything compulsory **CANNOT** be forbidden  
& anything forbidden **CANNOT** be compulsory.

<sup>1</sup> Art. 430a, Wetb. van Strafr., [https://wetten.overheid.nl/BWBR0001854/#BoekDerde\\_TiteldeellI\\_Artikel430a](https://wetten.overheid.nl/BWBR0001854/#BoekDerde_TiteldeellI_Artikel430a)

**WRONG:**

**Flawed Modus Ponens Inversion:**

If it is mathematically possible,  
it must physically exist.

**CORRECT:**

**Modus Tollens:**

If it is mathematically **IM**possible,  
it **CANNOT** physically **EXIST**.

Dutch proverb:

**Niet geschoten is altijd mis.**

*If you don't shoot you'll always miss.*

But don't **BOTH** verbs **HIT** and **MISS**  
apply **only** if you **DO** shoot?

Aren't **BOTH** *undetermined* otherwise?

Correct:

*If you don't shoot you'll neither hit nor miss.*

**Niet geschoten is noch raak noch mis.**

## Music:

A slur means the notes should be connected, i.e. their sounds must be continuous, without accents or intermediate pauses.

On a wind instrument, this can be achieved by playing them in one breath.

**On a bowed instrument like a violin,**

it **CAN** be achieved by playing with a ***single bow stroke***.

**Good violinists however, can play *inaudible* bow changes.**

Bowing merely is a technicality,

**a slur does *NOT* imply a single bow stroke,**

**it means the note sounds must be connected.**

A ***SLUR*** is ***NOT*** a ***BOWING*** instruction,  
(exactly the ***very same*** notation exists in piano music!)

it is a ***SOUND*** instruction.

**One *SHOULD NOT* "cut" a slur at a bow change!**

Dutch: **ER BESTÁÁN GÉÉN STREEKBOGEN!**