# Logic

— represent information
(Knowledge) in a
precise (i.e. well-defined)
language (structurally
and semantically)

- reason with this information
(deduction)

- other forms of reasoning
(induction ; abduction)

# Language

Natural language
(what humans use)
- words, sentences
- ambiguous

# Logical languages

- symbols and expressions
- structurally unambiguous
- semantically unambiguous

# Symbols

- to represent information
- to connect symbols

$\longrightarrow$ object language

A, B, C ; P, q, r

connectives (to be introduced later)

$\longrightarrow$ meta-language

— symbols used to
talk about object language

$\varphi, \psi$

— symbols used to
describe object language

$i, j, k, l, m, n$