

Predicate Logic or FOL

Chapter 8

Propositional Logic can't say

- If X is married to Y , then Y is married to X .
- If X is west of Y , and Y is west of Z , then X is west of Z .
- And a million other simple things.
- Fix:
 - extend representation: add predicates
 - Extend operator(resolution): add unification

Syntax

- See text for formal rules.
- All of propositional + quantifiers, predicates, functions, and constants.
- Variables can take on values of constants or terms.
- Term = reference to object
- Variables not allowed to be predicates.
 - E.G. What is the relationship between Bill and Hillary?
- Text Notation: variables lower case, constants upper
- Prolog Notation: variables are upper case, etc