

→ Question: Why go through all the Rules?

- In a reaction system it's important to select only one rule
- Rules can have conflict when more than one rule is applicable. Need Conflict resolution.

- Control of action selection is important

- You need control knowledge-helps agent decide what to do next. Several control strategies:

- Invoke rules in parallel
- Invoke one rule.

Control Strategies:

- 1) Apply the first rule
- 2) Apply all rules that apply
- 3) Select one rule from all that are applicable

Reactive systems

- For a class of problems, one strategy may apply. Divide problems by the application strategy. Choose the better strategy.

But what is better?

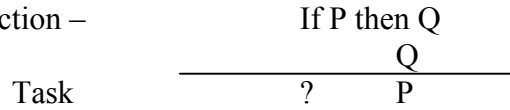
- Maybe efficiency
- Quality of solution

Mycin

- Diagnosis of bacterial organism.

- Rules If x type is primary bacterium and the susp. Entry point then x is ...

-Abduction –



- Deduction method: What can cause Q?
- potential causes of Q -P, -R, -T
- Pick each option, given R then Q?

-Mycin says—“for a disease these are all of the symptoms. Does the patient have all of the symptoms?”

-Mycin knew relatively few organism identities.

-Backward chaining – when you match consequence.

-Forward chaining – when you match antecedents.

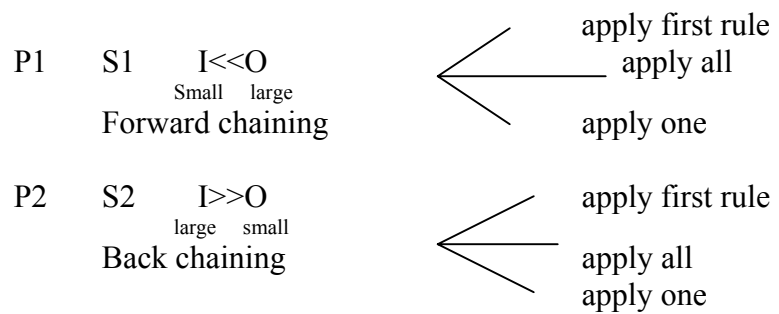
-When is Abduction and deduction worthwhile?

-when the number of hypothesis's is small and the symptoms large.

-Forward Chaining

-when the number of symptoms is small and the hypothesis is large.

-Classes of Problems:



These are control strategies applied

At a higher level

-Proponents claim that control knowledge is a significant part of knowledge.