Comparing Agent Modeling for Language and Action

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Comparing Agent Modeling in NL-Soar and Automated Pilot Agent

Outline:

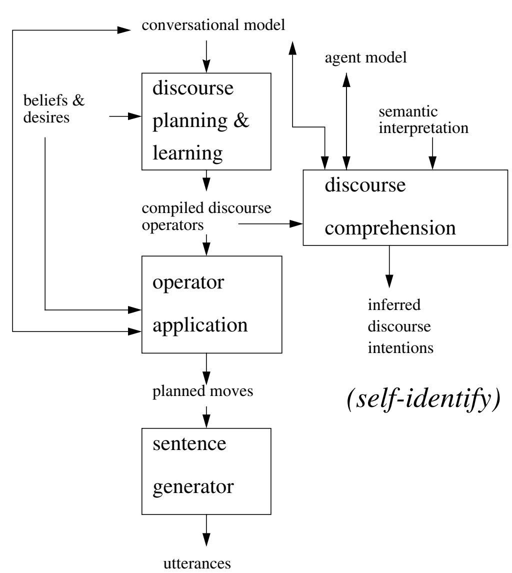
- Common constraints
- Similar solutions
- Open issues

Common Constraints

- Comprehension problem
  - discourse acts vs. non-communicative acts
  - inference, ambiguity , error recovery
- Domain: real-time, dynamic
- Soar architecture: control structure, learning, memory

Agent Modeling for Language

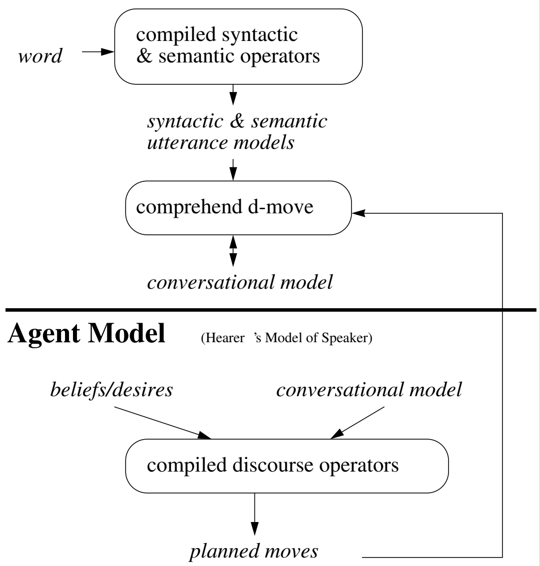
Discourse Processing in NL-Soar



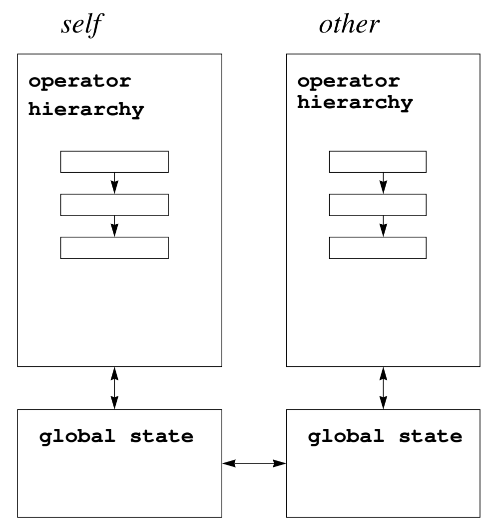
(self-identify)

("Parrot-101")

Discourse Comprehension in NL-Soar



Automated Pilot



Comparison

Both: Simulation of other agent's behavior using shared operators

NL-Soar:

- compiled discourse operators
- intended recognition

Pilot:

- parallel goal stack
- keyhole recognition

Open Issues

- Error recovery in discourse comprehension
- Integration of agent models for language and action
  - intended recognition of action for discourse comprehension
  - compiled language operators with parallel goal stack?