

List of questions suggested for consideration
in each session

Session 1. Language Representation and Psychology

1. How psychologically accurate are different formalisms? (e.g. KRL, conceptual dependency diagrams, SCRIPTS, LNR, semantic networks/spreading activation, etc.)

How might we find out such information?

How important is psychological accuracy?

What aspects and consequences of various formalisms lead to implausible cognitive models?

2. How would highly parallel hardware affect representations and processing?

What evidence is there for the action of parallel agents (in Minsky's sense) in language understanding?

How would such a model of cognition affect models of language comprehension?

3. How general are various formalisms?

Are they really ad hoc solutions to relatively narrow domains (e.g. stories, newspaper articles, data base question-answering, isolated sentences, etc.)?

Which could be most successfully generalized?

What problems are still unsolved by any formalism?

Session 2. Language Representation and Reference

It is the hypothesis of this session that entities which can be referred to provide prime evidence for the underlying representation necessary for extended passages of language (narrative, text or discourse).

1. What functions do descriptions serve (e.g. inferential as well as referential)?

How much inference is necessary to resolve reference?

Are items which can be referenced "naturally" already appropriately organized or "indexed"?

How close is representation to surface structure?

Does representation depend on factors like attention or visualization on the part of a listener?

2. What things can be referred to anaphorically?

What things can not?

When (under what circumstances) can they be referenced?

What intervening items can confuse reference or make it impossible?

How are appropriate referring expressions constructed/understood?

Are there differences in the answers for reference by pronoun and definite noun phrases?

3. Is the initial hypothesis above valid?

What other methods can be used to find out about underlying passage representation?

Session 3. Discourse: Speech Acts and Dialogue

1. What sorts of models are necessary? (e.g. self-models, other-models, model of "contract," model of topic, etc.).

2. What should be included in a model? (e.g. beliefs, goals, current topic content, current topic constituents, etc.).

3. How domain dependent must the models be?

What signals are used to cue model information?

How are these signals understood?

4. How much information is lost in transcripts of dialogues (i.e. without intonation, body language, etc.)?

Do we use different techniques in writing as substitutes?

5. What makes discourse coherent?

How could we characterize and model what is communicated in a coherent discourse?

What mechanisms are used to relate utterances in a discourse?

What relationships are there between production and comprehension, and how are the models of these processes used?

6. What extra meaning can be conveyed at the phrasal level?

How much depends on being able to "read between the lines" in a dialogue?

Session 4. Language and Perception

1. How are language and perception related?

How closely?

Are natural language primitives related to a priori perceptual entities?

How might we find out?

Are parts of speech perceptually based?

2. What is the function of visual imagery in the understanding of language?

How important is it?

3. Is perceptual experience represented in memory like linguistic experience (e.g. stories)?

If not, how are representations linked or combined?

4. Do all schemata arise from the sensory/motor world?

To what extent should computational linguistics mimic human development?

What are the possibilities for a system to learn language by experience?

Session 5. Inference Mechanisms in Natural Language

1. How can we effectively use multiple descriptions of entities?

Should we?

2. How can presupposition be represented and used in understand generating indirect replies to questions, etc.

3. How is inference controlled?

4. What is the role of deduction in language processing.

What is its relation to inference?

Session 6. Computational Models as a Vehicle for
Theoretical Linguistics

1. What can theoretical linguistics learn from computational models that is not accessible by traditional means?
2. What aspects of linguistics have not been fully comprehended or appreciated by computational linguists.
What current directions in linguistics are most promising for computational modelling?
3. Is linguistics ripe for a paradigm shift?
Are linguists ready?

4. What problems are most appropriate for each discipline?
How might cooperation and coordination be improved?
5. What are the current views in each field on syntax, semantics and pragmatics?
Why is there widespread disagreement, especially about the role of syntax?

