Challenges and Opportunities for Hybrid Processing

and Chances for Additional Cooperation



Discussion led by Hans Uszkoreit

DELPH-IN MEETING LISBON 2005





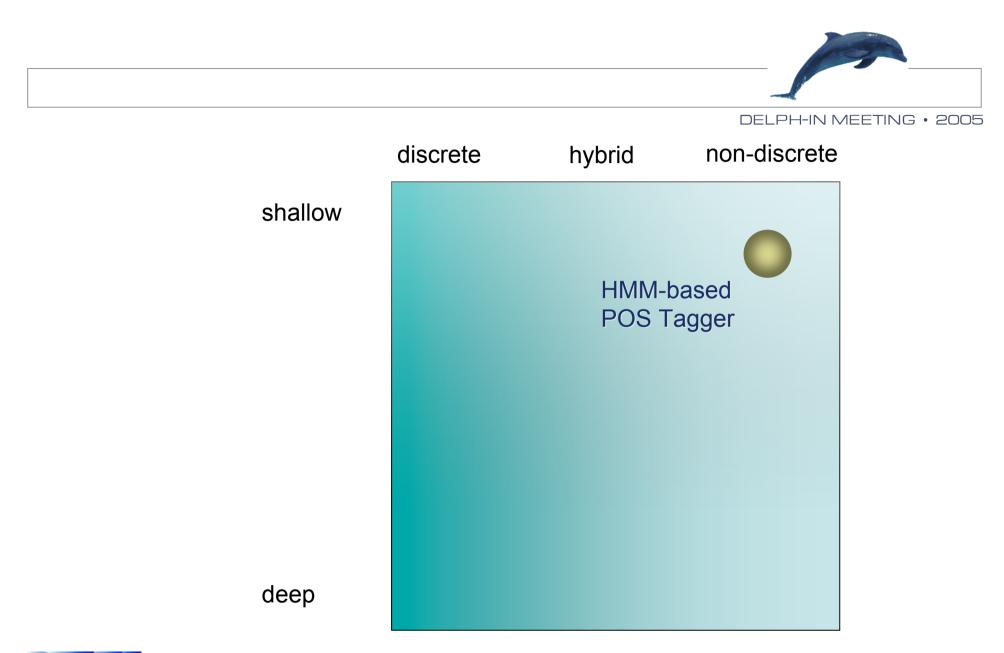
- \Rightarrow Information Extraction
- $rac{1}{3}$ Question Answering
- \Leftrightarrow Language (Grammar) Checking
- \Leftrightarrow Machine Translation
- \Leftrightarrow Spoken Dialogue Systems

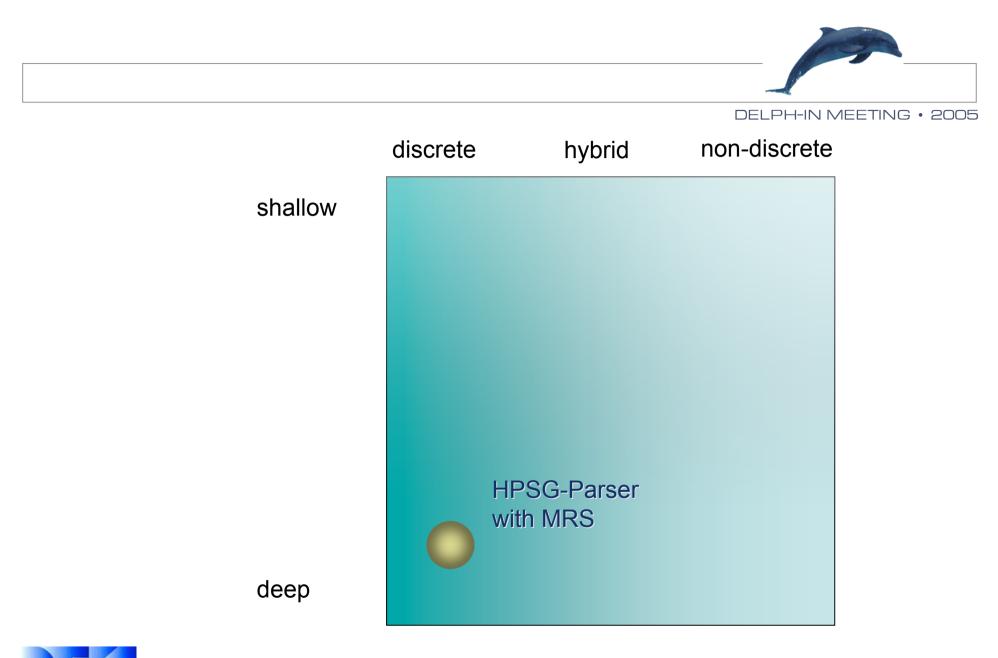


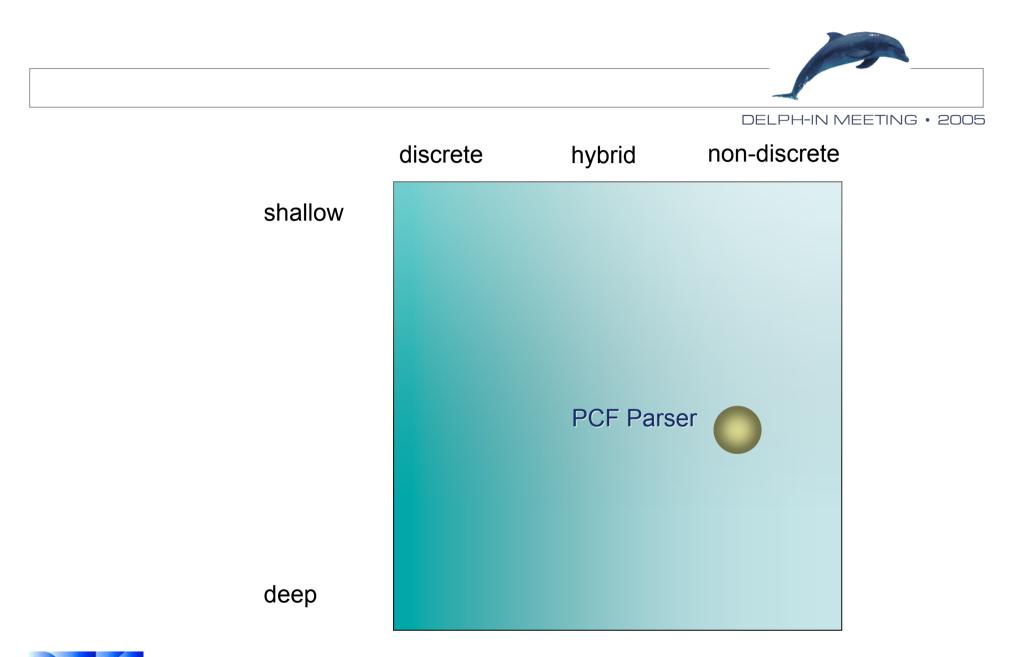


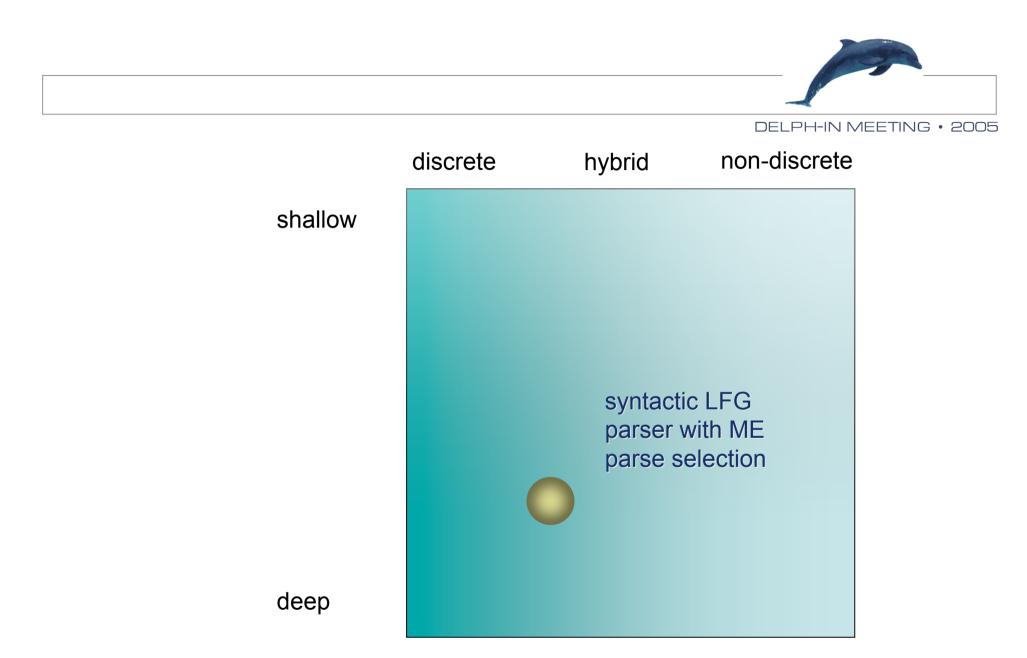
- ☆ deep methods for morphological syntactic semantic processing exploit our knowledge about the structure of human language
- ☆ as opposed to shallow methods such as pattern matching grammars, ngram language models
- ☆ deep methods are needed for getting at the meaning of language input
- ☆ shallow methods perform a partial or heavily under-specified analysis sufficient for certain applications

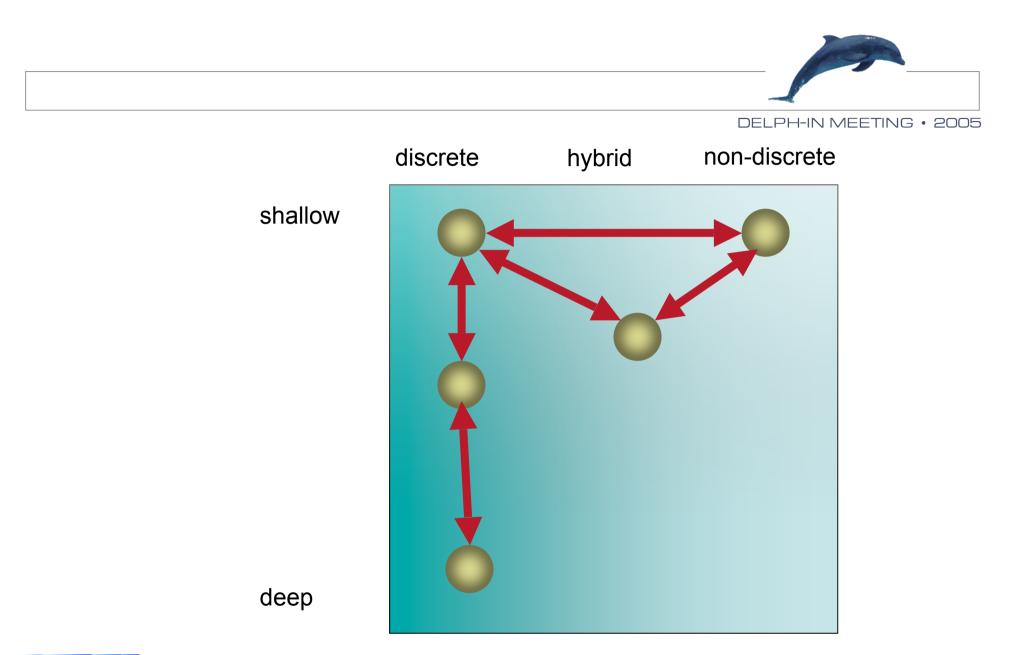














 $\Leftrightarrow \mathsf{WHITEBOARD}$

rightarrow Deep Thought

our approach: work with shallow IE and add HPSG processing

 \Leftrightarrow Other developments?





rightarrow QUETAL

rightarrow COLLATE 3



Language (Grammar) Checking



☆ Plans at Barcelona (Pompeu Fabra and Autonoma)

☆ Plans at Saarbrücken (Project Application SaSPECT)





 $\Leftrightarrow \mathsf{LOGON}$

- ☆ Korean, Japanese, English
- \Leftrightarrow other developments?



Spoken Dialogue Systems



☆ in the past: Daimler Chrysler Project (DFKI)

 \Leftrightarrow other developments?

