Goals

- Goals so far
  - describe French verbs
  - represent verb meanings in an ontological system
  - use this system to disambiguate verb meanings in context

- New goals in three domains
  1. Lexical-semantic representation
  2. Application and evaluation
  3. Lexical resources
Lexical-semantic representation

- Respond to new challenges resulting from the use
  - of the Web Ontology Language (OWL)
    - for the conceptual representation
  - of Description Logics (DL)
    - for reasoning and sense disambiguation
  - and of Horn logic (in the form of the Semantic Web Rule Language; SWRL)
    - for the calculation of inferences
Lexical-semantic representation

- Elaborate on a typology of the inferences triggered by verbs that is more fine-grained than the classical one
  - i.e. entailment, presupposition, implicature
- How? Enrich scalar values indicating the strength of the respective inferences
  - beyond the widely-used distinction: TRUE, FALSE and UNKNOWN (see e.g. work at PARC by Condoravdi and Karttunen)
  - add a fourth value LIKELY
    - determine that value on the basis of a fuzzy extension of SWRL
      - f-SWRL
- Scalar values might also apply to other parts of the representation, such as the modelling of semantic roles.
Lexical-semantic representation

- Intensify ongoing work on:
  - identification and modelling of understudied cases of systematic polysemy in the verbal domain
    - verbal polysemy
  - Include the semantic impact of affixes in prefixed verbs
    - cf. the difference between *tirer/attirer, prendre/apprendre*
    - contrastive aspects French/German in cooperation with B4
Lexical-semantic representation

- ontological status of the meta-language
  - i.e. the predicates used in the current semantic decompositions
    - Does a predicate WANT used in the description of a verb 'encourager' correspond to the concept of WANTING defined in the ontology?
  - No attempt to contribute to relevant debates on a meta-semantic or philosophical level, but rather provide answers to practical questions that need to be addressed in the modelling of lexical-semantic and ontological data.
Application and Evaluation

- Provide a contribution to RTE tasks
  - relevant for interaction with D projects (maybe S. Padò)
- Current attempts to include more fine-grained lexical-semantic information into lexical resources
  - cf. WordNet, C. Fellbaum at KONVENS 08
- The idea:
  - compile a French data set based on the findings of B5
  - wrt. understudied entailment cases and the contextual parameters that have an influence on the inferences
    - tense, ontological type of arguments, or 'presuppositional environment'
Using and Producing Lexical Resources

- Make use of existing resources, e.g.
  - Larousse data used in the ROMANSEVAL competition of word-sense disambiguation in Romance languages,
  - the classification of French verbs by Dubois/Dubois-Charlier 1997
    - cf. proposal for a bridge project B/D (Schütze/Stein)
- Method
  - manually annotate fractions of a French corpus with senses defined in these resources
  - obtain a reliable resource with which we can
    - improve on the so far achieved results for selectional preference calculation and word-sense disambiguation
    - build a resource that can be used by a wider community in order to apply statistical methods to French data (coop. with D4?)