Categorial grammars and semantics

(Grammaires catégorielles et sémantique)

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Main proposal : for comments in "Documented softwares"
(some other domains are possible : Legal data, Breton)
modelling (natural languages, sentences *structures*), via formal grammars (finite description, idealizations), several frameworks and traditions, no winning one from theoretical.

:: as parsing (structures)
:: to practical issues
:: proof (trees)
A categorial grammar formalism has fixed combination rules. Words are associated with types (properties) that combine. Outputs the structure and some semantics.

Objectives. To handle "comments" in documented softwares: unknown words, mixed parts and user conventions, specific styles?
Note: possible variants

Next subject
Requirements specification in natural language, with automata and logic

(Spécification d’exigences en langage naturel, avec automates et logique)

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Objectives. For **specifications** (cahier des charges) how to link **texts**, using a **compositional** approach, to representations as **modal automata** (must/may transitions), with a focus on "required", "optional", or "forbidden"?

The work will rely on:

- categorial grammars and logical systems (for text analysis)
  CC/Boxer ("computational semantics tool")
- logic and modal automata (for formal verification)
  Mica ("Modal Interface algebra tool")