

In short, this is the “communication” scheme between lexicon and ontology:



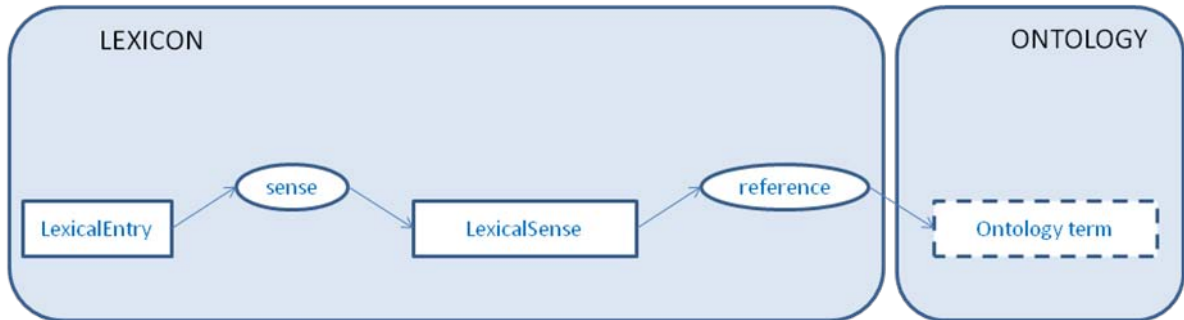
How to publish the “lexicosemantic” layer on the Web is a major issue that we have just tangentially treated so far. The model is flexible enough to support many possibilities. Indeed, we decided to allow bidirectional/functional relationships between LexicalEntry and the ontology term to enable that flexibility.

Initially, the adoption of Semantic Web techniques allows to put this intermediate information between lexicon and ontology in any place. Nevertheless, an analysis on the different possibilities and their benefits/drawbacks is required to provide realistic solutions for an in-use scenario.

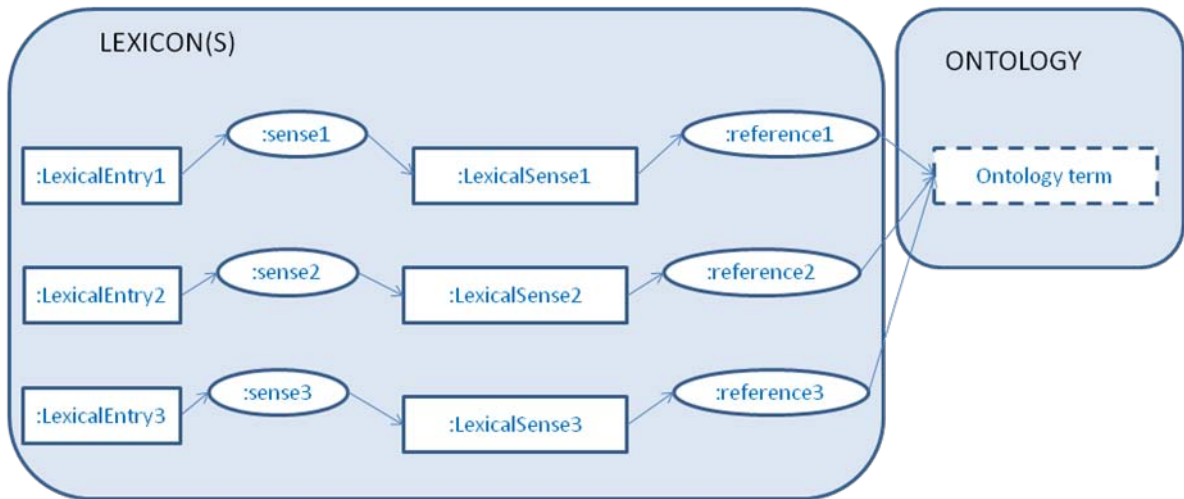
Being practical, I devise three possible scenarios (though more are allowed):

- 1) Lexical senses are defined and published inside the lexicon
- 2) Lexical senses are defined and published inside the ontology
- 3) Lexical senses are defined and published in an intermediate external layer

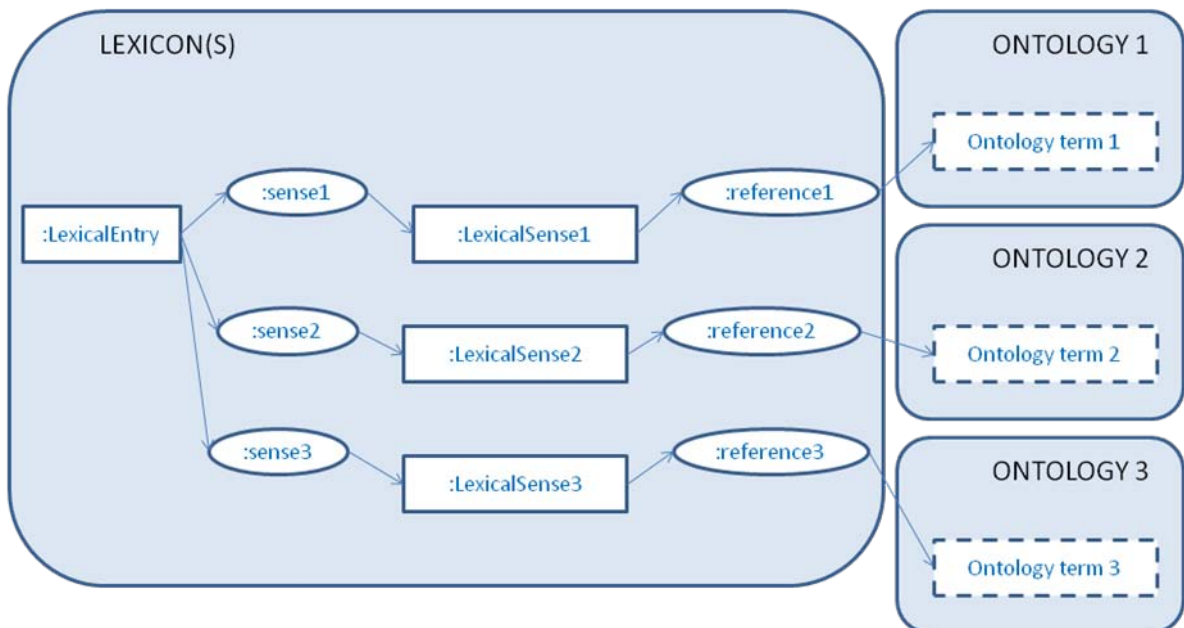
Scenario 1. Lexical senses are defined and published inside the lexicon



Scenario 1.1: Multiple lexical entries associated to the same ontology term (synonymy or translations)



Scenario 1.2: Single lexical entry associated to multiple ontology terms (polysemy)



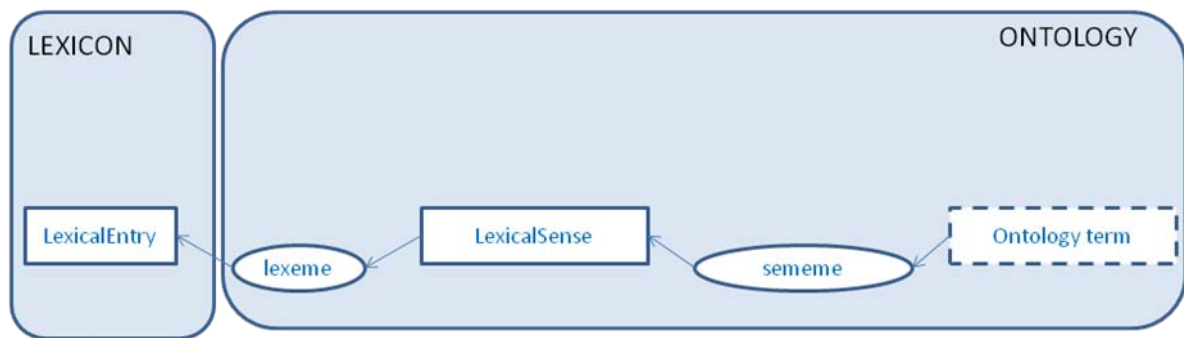
PROS:

- Ontology remains untouched
- It favours ontology reusability

CONS:

- Overload of lexico semantics information in the lexicon
- Hampers lexicon reusability (lexicon has to be modified/created each time we lexicalise/localize an ontology)

Scenario 2. Lexical senses are defined and published inside the ontology



(subscenarios 2.1 and 2.2 equivalent to 1.1 and 1.2 could be also defined here)

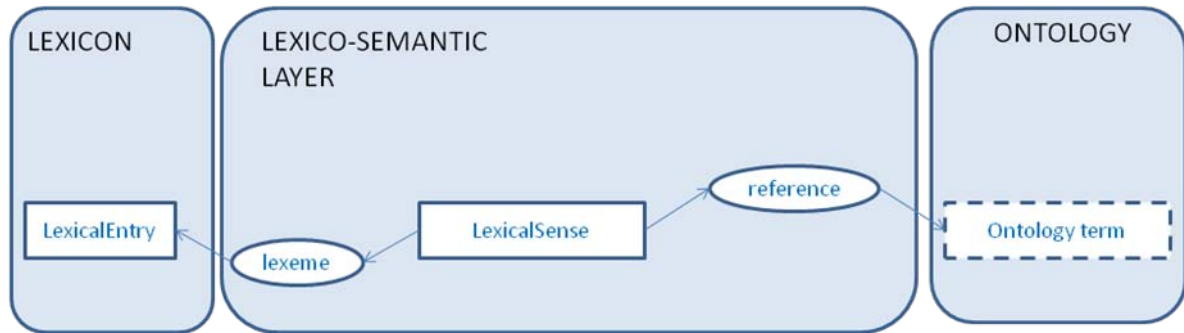
PROS:

- Lexicon remains untouched
- It favours lexicon reusability

CONS:

- Overload of lexico semantics information in the ontology

Scenario 3. Lexical senses are defined and published in an intermediate external layer



PROS:

- Lexicon remains untouched
- Ontology remains untouched
- It favours lexicon/ontology reusability

CONS:

- Publishing the intermediate layer separately makes more difficult the task of discovering the lexicalization

DISCUSSION. Maybe different applications require different scenarios. For the monnet requirements I would discard scenario 2 as we plan to leave ontologies untouched in any case. My preference goes for scenario 3 as it maximizes flexibility and reusability, though new issues are introduced. Anyway, this intends to be just a starting point for a more complete analysis and discussion.