Participants:
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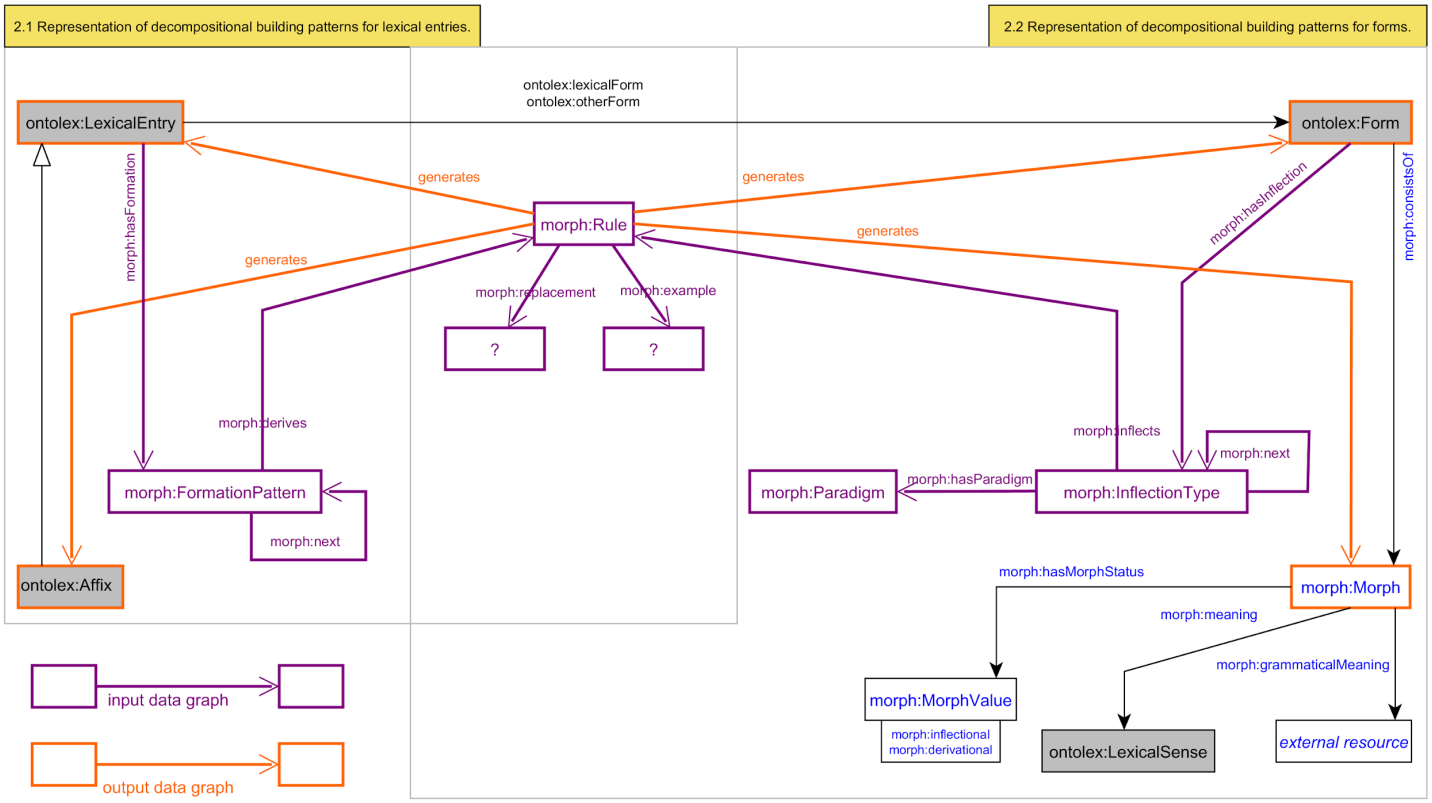
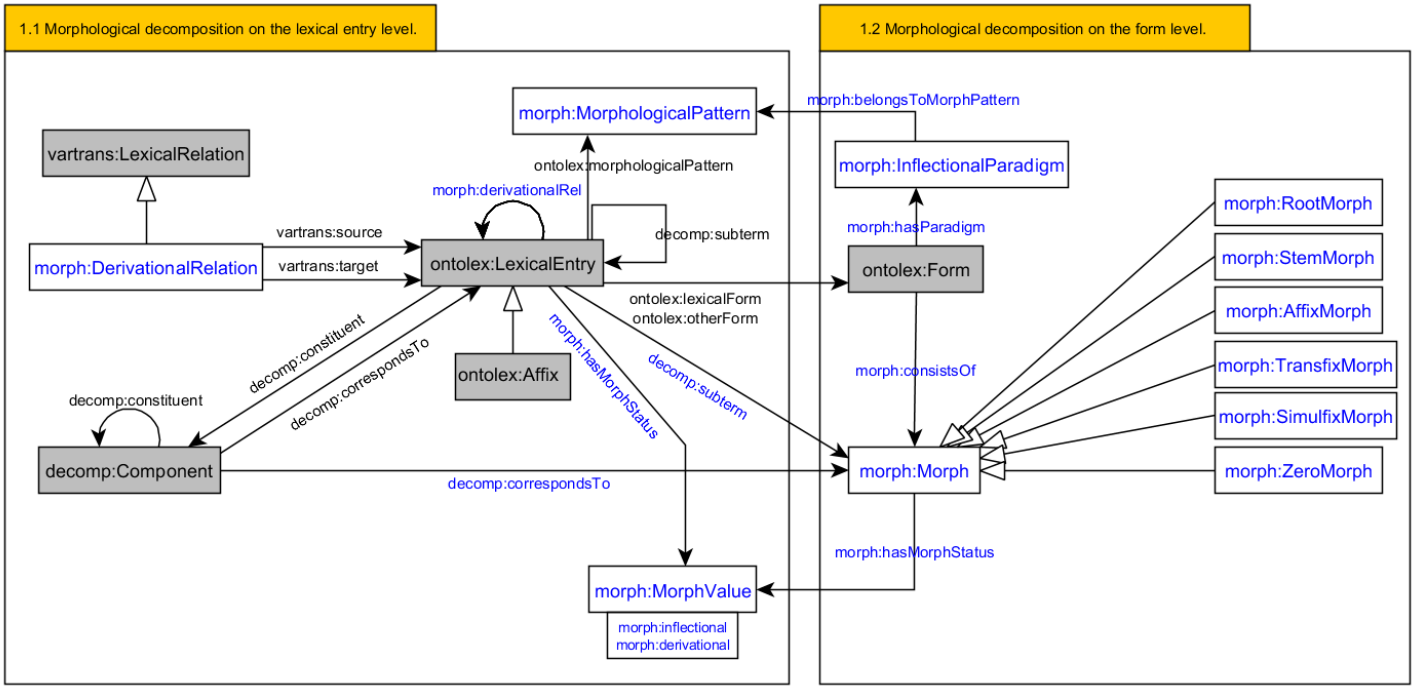
Updated modelling draft for automatic generation process of ontolex:LexicalEntry and ontolex:Form instances



Modelling issues:

- What to do with morph:MorphologicalPattern, morph:belongsToMorphPattern, morph:InflectionalParadigm and morph:hasParadigm? Substitute completely?
- What classes have to be created for the two indicated “?” placeholders?
- Keep two separate diagrams: one for decomposition and one for generation or merge both into one diagram?

Current modelling draft (as published in eLex paper)



Original ontolex:morphologicalPattern

```
Definition: The 'morphological pattern' property indicates the morphological class of a word.
domain: ontolex:LexicalEntry
```

Todo Max:

Definition of Max' new elements:

Classes:

Properties:

Todo Bettina: Adjust diagram according to Max definitions.

Spanish example (synthetic, fusional)

```
@prefix :
<file:///Users/max/Projects/LiODi/Ontolex-morph/dataset-generation-example.ttl#> .
@prefix rdf: <http://www.w3.org/1999/02/22-rdf-syntax-ns#> .
@prefix ontolex: <http://www.w3.org/ns/lemon/ontolex#> .
@prefix lexinfo: <http://www.lexinfo.net/ontology/2.0/lexinfo#> .
@prefix morph: <https://www.w3.org/community/ontolex/wiki/Morphology#> .
@prefix rdfs: <http://www.w3.org/2000/01/rdf-schema#> .

# Morphology with only one segment
# Can still have InflectionTypes for assimilation

# If we have morph:example provided for each Rule, we have all the forms already
generated. We don't have to, though.

<#amar>    a ontolex:Word ;
            ontolex:canonicalForm [ontolex:writtenRep "amar"@es];
            morph:inflects <#spanish_verb_type_1a> .

<#comprar>    a ontolex:Word ;
            ontolex:canonicalForm [ontolex:writtenRep "comprar"@es];
            morph:inflects <#spanish_verb_type_1a> .

<#spanish_verb_type_1> a morph:Paradigm ;
                        rdfs:comment “Theoretically motivated Spanish conjugation type 1”
.

<#spanish_verb_type_1a> a morph:InflectionType ;
                          morph:paradigm <#spanish_verb_type_1> ;
                          morph:example "amar"@es .

# *** CASES ***

<#spanish_verb_type_1a_amar_1sg> a morph:Rule ;
morph:inflectionType <#spanish_verb_type_1a_amar> ;
lexinfo:tense lexinfo:present ;
lexinfo:person lexinfo:firstPerson ;
lexinfo:number lexinfo:singular ;
morph:example "amo"@es ; # optional
morph:replacement [morph:source "ar$"; morph:target "o"] .

<#spanish_verb_type_1a_amar_conj_2sg> a morph:Rule ;
morph:inflectionType <#spanish_verb_type_1a_amar> ;
lexinfo:tense lexinfo:present ;
```

```
lexinfo:person lexinfo:secondPerson ;
lexinfo:number lexinfo:singular ;
rdfs:label “-as” ;
morph:example "amas"@es ; # optional, but if we provide it, all the examples are here
# morph:replacement [morph:source "ar$"; morph:target "ás"] ; # in principle, this should
probably be a separate InflectionType. Or not?
morph:replacement [morph:source "ar$"; morph:target "as"] .
```

An example for a language with just one “slot”, but with not much weird stuff going on (relatively)

Sanskrit example (synthetic, *extremely* fusional)

```
@prefix :
<file:///Users/max/Projects/LiODi/Ontolex-morph/dataset-generation-example.ttl#> .
@prefix rdf: <http://www.w3.org/1999/02/22-rdf-syntax-ns#> .
@prefix ontolex: <http://www.w3.org/ns/lemon/ontolex#> .
@prefix lexinfo: <http://www.lexinfo.net/ontology/2.0/lexinfo#> .
@prefix morph: <https://www.w3.org/community/ontolex/wiki/Morphology#> .
@prefix rdfs: <http://www.w3.org/2000/01/rdf-schema#> .

# Morphology with tables
# There are no rules/transformations, only examples

<#kāma>    a ontolex:Word ; # if we shouldn't use unicode, we need to encode URIs
            ontolex:canonicalForm [ontolex:writtenRep "kāmaḥ"@sa];
            morph:inflects <#sanskrit_noun_type_a_stem> .


<#sanskrit_noun_type_kama> a morph:InflectionType ;
                           morph:paradigm <#sanskrit_noun_type_a_stem> ;
                           morph:example "kāmaḥ"@sa .


# *** CASES ***

<#sanskrit_noun_type_kama_nom_sg> a morph:Rule ;
morph:inflectionType <#sanskrit_noun_type_kama> ;
lexinfo:number lexinfo:singular ;
lexinfo:case lexinfo:nominative ;
morph:example "kāmaḥ"@sa .

<#sanskrit_noun_type_kama_acc_sg> a morph:Rule ;
morph:inflectionType <#sanskrit_noun_type_kama> ;
lexinfo:number lexinfo:singular ;
lexinfo:case lexinfo:nominative ;
morph:example "kāmam"@sa .

<#sanskrit_noun_type_kama_nom_dual> a morph:Rule ;
morph:inflectionType <#sanskrit_noun_type_kama> ;
lexinfo:number lexinfo:dual ;
lexinfo:case lexinfo:nominative ;
morph:example "kāmau"@sa .
```

This is an example with a language where it’s not really wise to give any rules for transformation, just a table (at least, this a morphological tradition → no morph:replacement, only morph:example).