Issues in Building the LiLa Knowledge Base of Interoperable Linguistic Resources for Latin

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UNIVERSITÀ CATTOLICA del Sacro Cuore

IRCSE

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Mykolas Romeris University, Vilnius, Lithuania

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Overview

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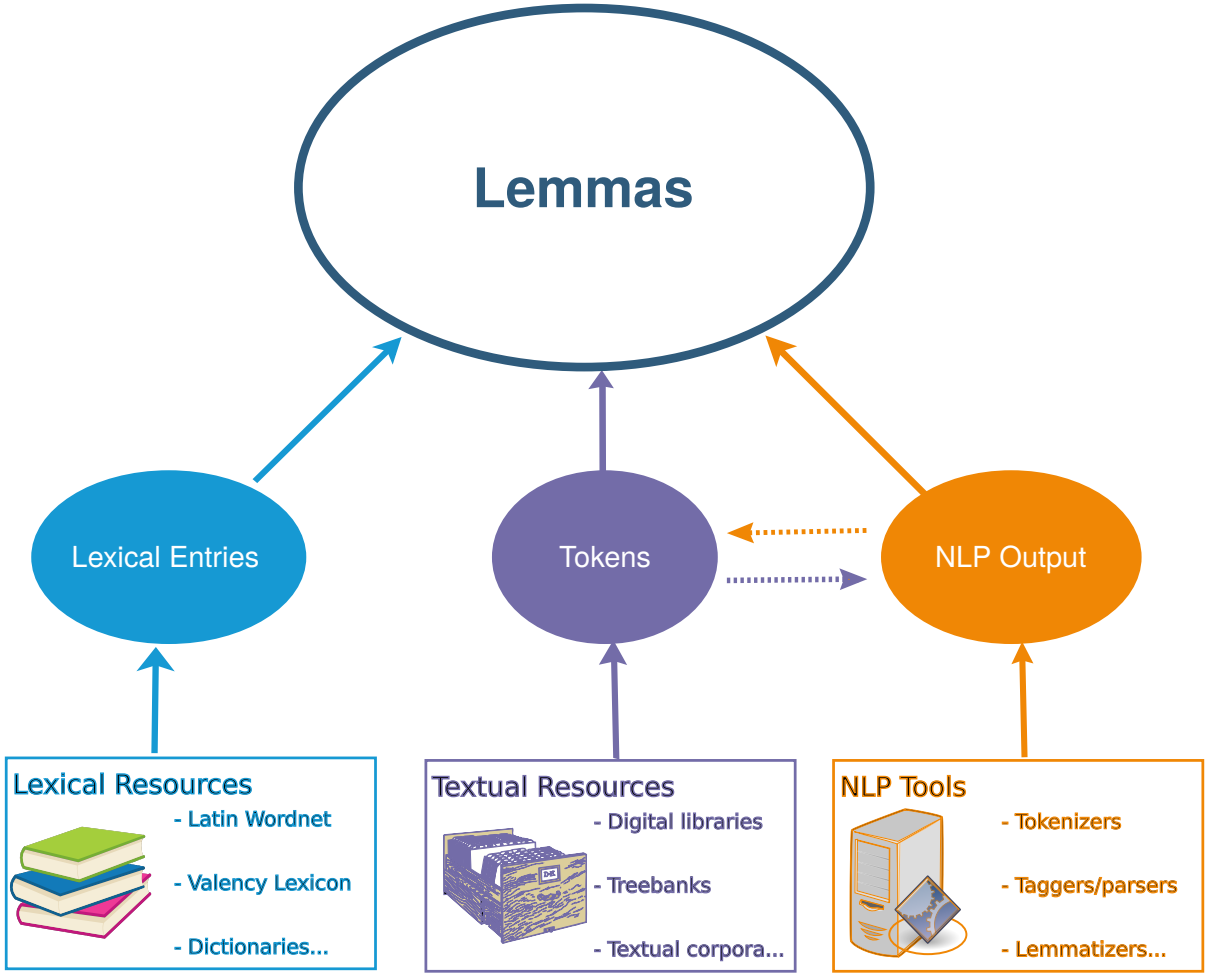
ERC Consolidator Grant 2018-2023

A collection of multifarious, interoperable linguistic resources described with the same vocabulary for knowledge description (by using common data categories and ontologies)

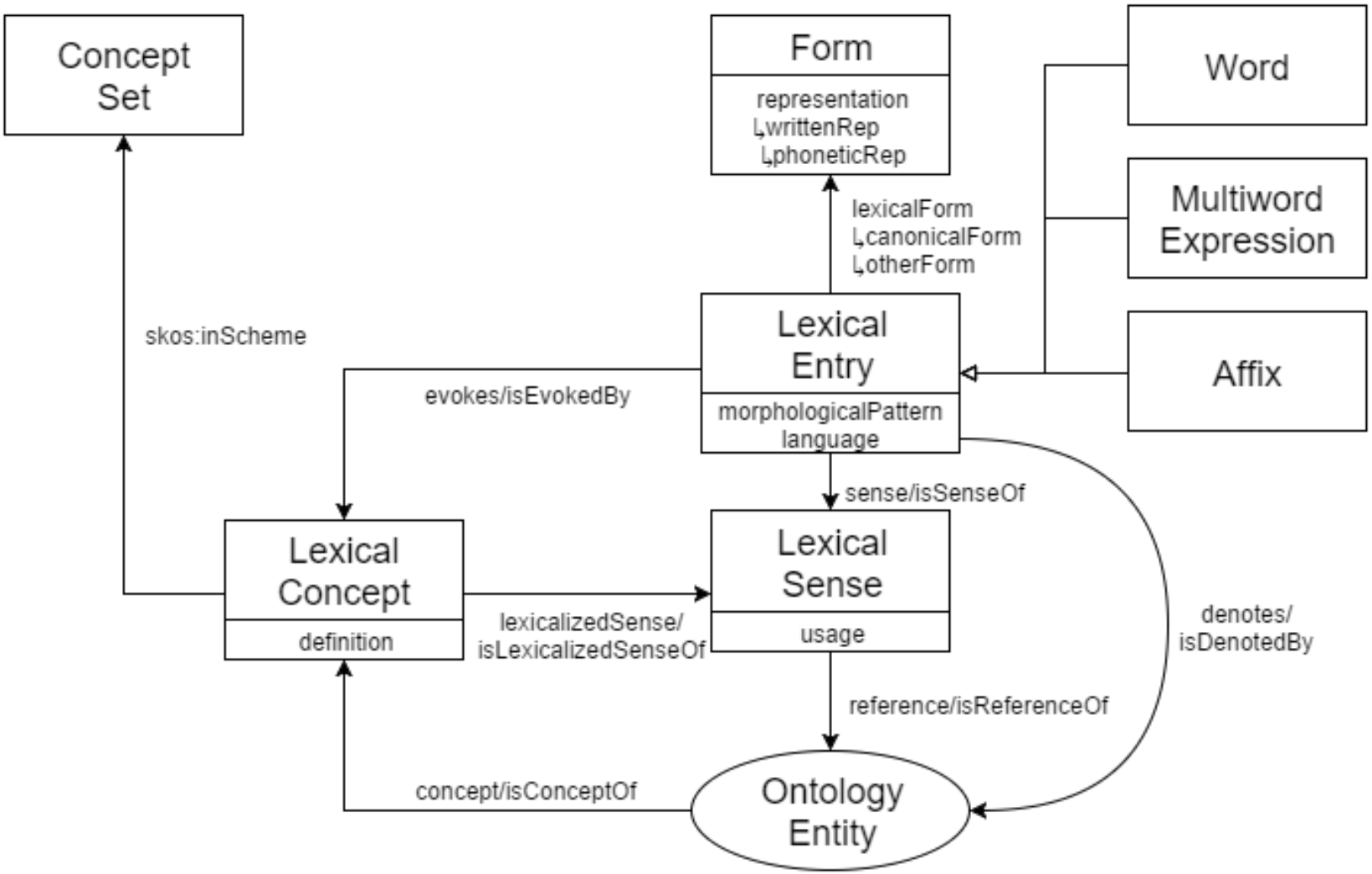
LiLa Knowledge Base

Lexically-based architecture and (meta)data sources



LiLa and Ontolex Lemon

A *de facto* W3C standard for publishing lexical data as LLOD



LiLa: Overview

Resources connected so far

- **Textual Resources**
  - ☑ Index Thomisticus Treebank (*Summa contra Gentiles*): ca. 400,000 nodes
  - ☑ UDante Treebank: ca. 46,000 tokens
  - ☑ *Querolus sive Aulularia*: ca. 17,000 tokens
  - ☑ *Liber Abbaci* (ch. VIII) by Leonardo Fibonacci: ca. 30,000 tokens
  - ☑ LASLA Corpus: ca. 1.7 million tokens
  - ☑ Computational Historical Semantics: ca. 1 million tokens
  - ☑ *Confessiones* by Augustinus: ca. 92,000 tokens
- **Lexical Resources**
  - ☑ Lemma Bank: ca. 200,000 canonical forms
  - ☑ Word Formation Latin: ca. 36,000 lemmas (Classical Latin)
  - ☑ Etymological Dict. of Latin & the Other Italic Langs.: ca. 1,500 entries
  - ☑ LatinAffectus: ca. 3,300 entries
  - ☑ Index Graecorum Vocabulorum in L. Latinam Transl.: ca. 1,800 entries
  - ☑ Latin WordNet: ca. 2,500 manually checked entries
  - ☑ Latin Vallex 2.0: ca. 2,000 entries
  - ☑ Lewis & Short Dictionary: ca. 50,000 entries

TOTAL: approximately 47 million triples

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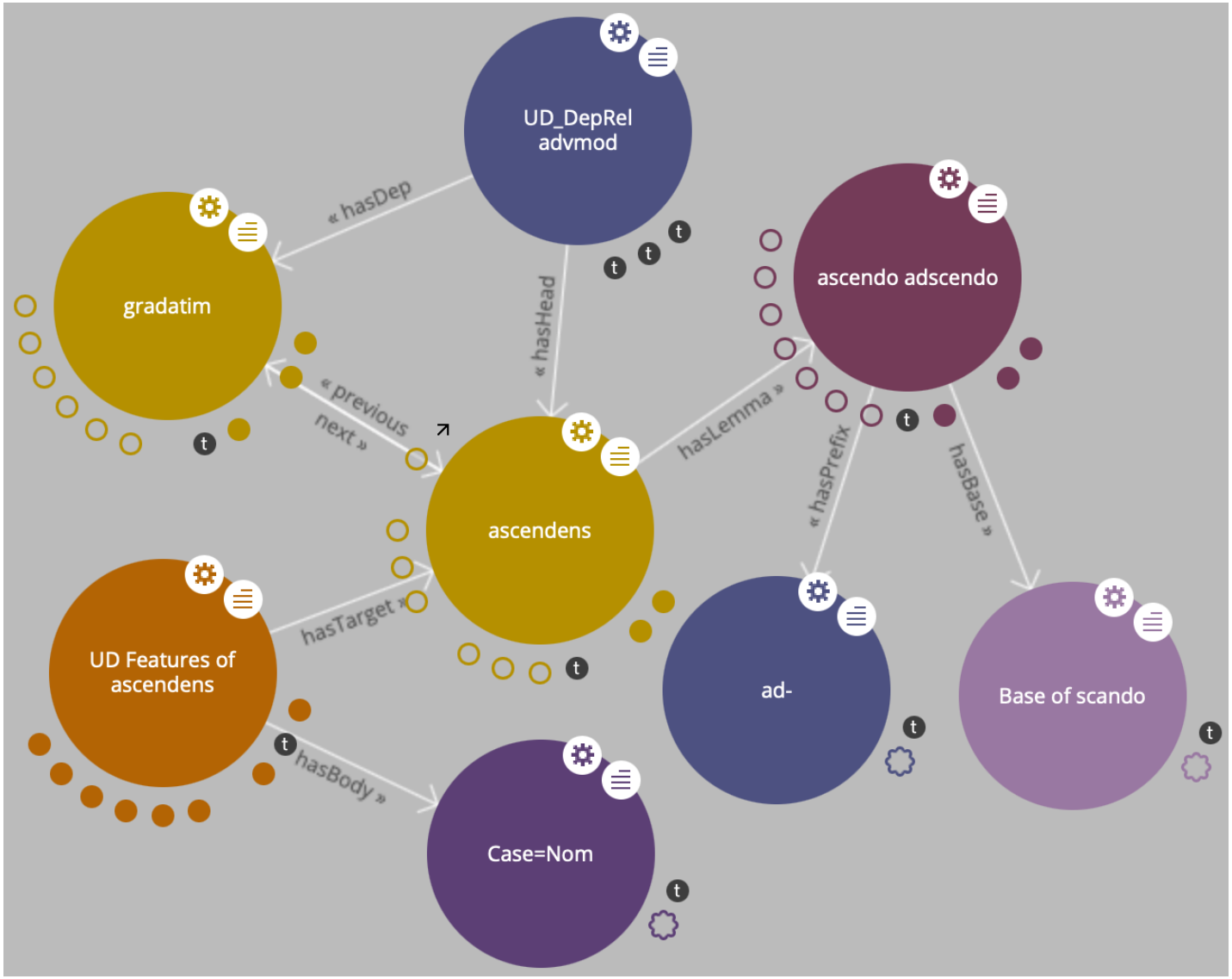
Modeling a Textual Resource in LiLa

http://lila-erc.eu/data/corpora/ITTB/id/token/005.SCG*LB4.CP--++1.N.1-7-2.11-1W24



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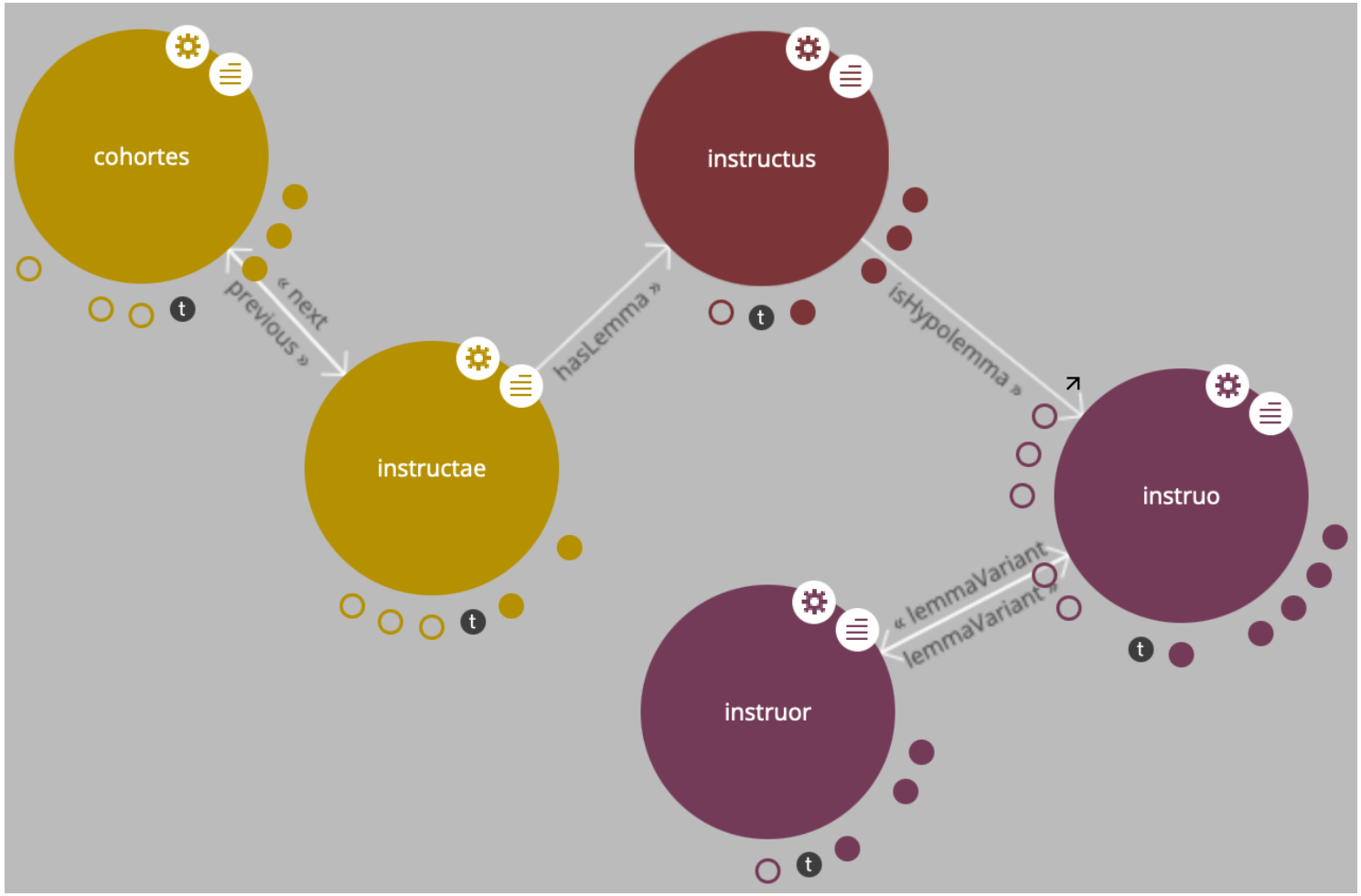
- **Missing links**: automatic enhancement of the Lemma Bank? New lemma? New lemma-PoS couple? New written representation?
- **Different lemmatization/PoS criteria** in source corpora: solved by:
  - harmonization (graphical variants + hypolemmas & lemma variants → see next slide)
  - relaxed constraints on PoS-match (PROPN, NOUN, ADJ)

Issues in Publishing Textual Resources in LiLa

https://lila-erc.eu/lodview/data/corpora/Lasla/id/corpus/CaesarBellum20Civile/Caesar_BellumCivile_CaesBC1.BPN_t_0006064

Praeruptus locus erat utraque ex parte derectus ac tantum in latitudinem patebat, ut tres **instructae** cohortes eum locum explerent. (Caesar, *Bellum civile*, 1, 45, 4)



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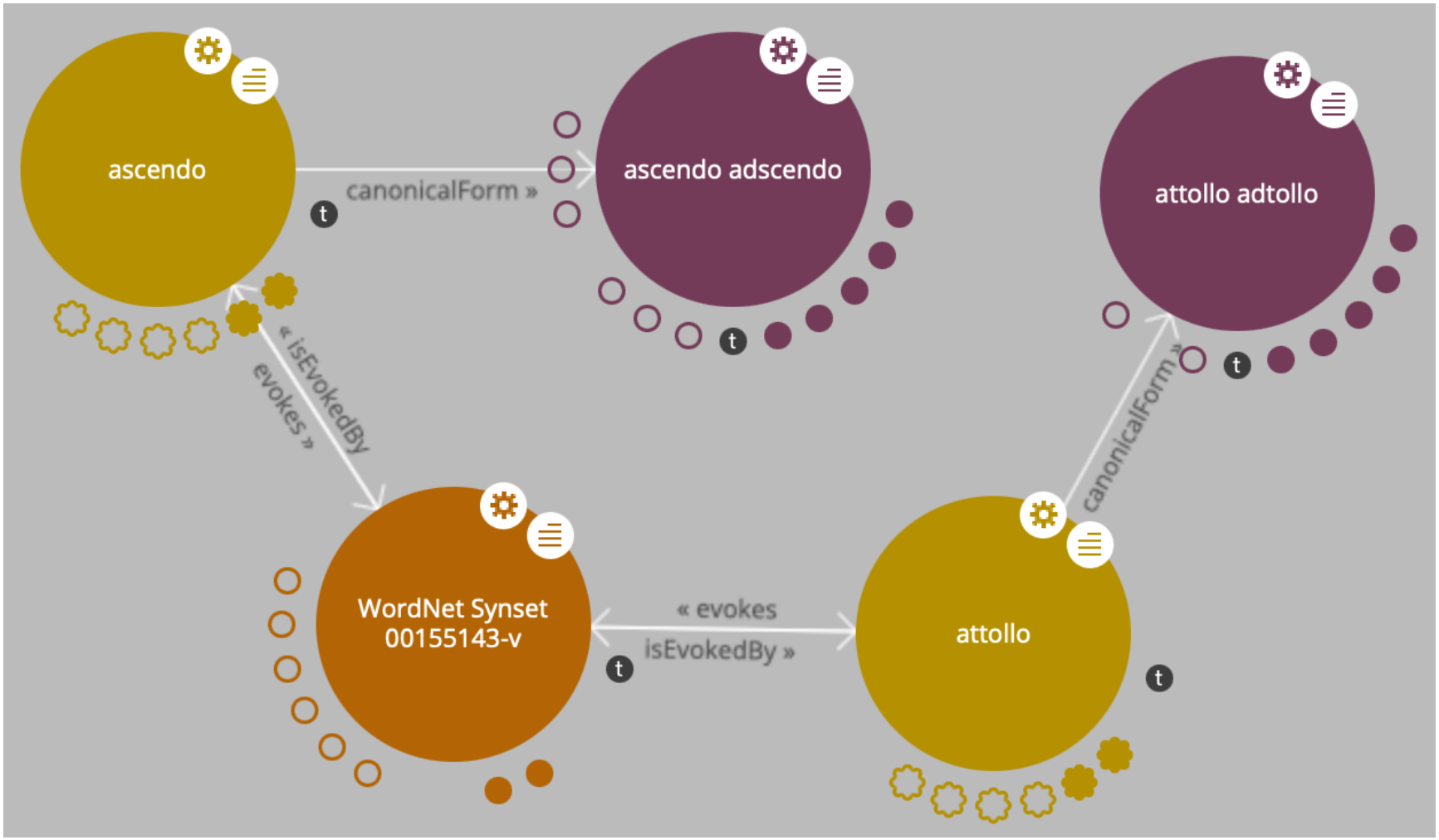
Modeling a Lexical Resource in LiLa

https://lila-erc.eu/lodview/data/id/lemma/90185



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- Disambiguation of the linking of **homographs** in the Lemma Bank
- Lexical resources with **"not canonical" naming of entries** (e.g., infinitive instead of first singular indicative present for verbs): enhancing the Lemma Bank?

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Services and Tools
Linking and Querying Resources

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- LiLa Query Interface:
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- Representation issues: limitations in representing complex lexical entries (like those of TLL); limitations in representing critical apparatus
- Are we really *linking* Latin? So far we've *published* a lot of Latin LOD
- Help more projects publishing Latin data as LOD (and link them to us)

Thank you!

LiLa: Linking Latin
Università Cattolica del Sacro Cuore
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