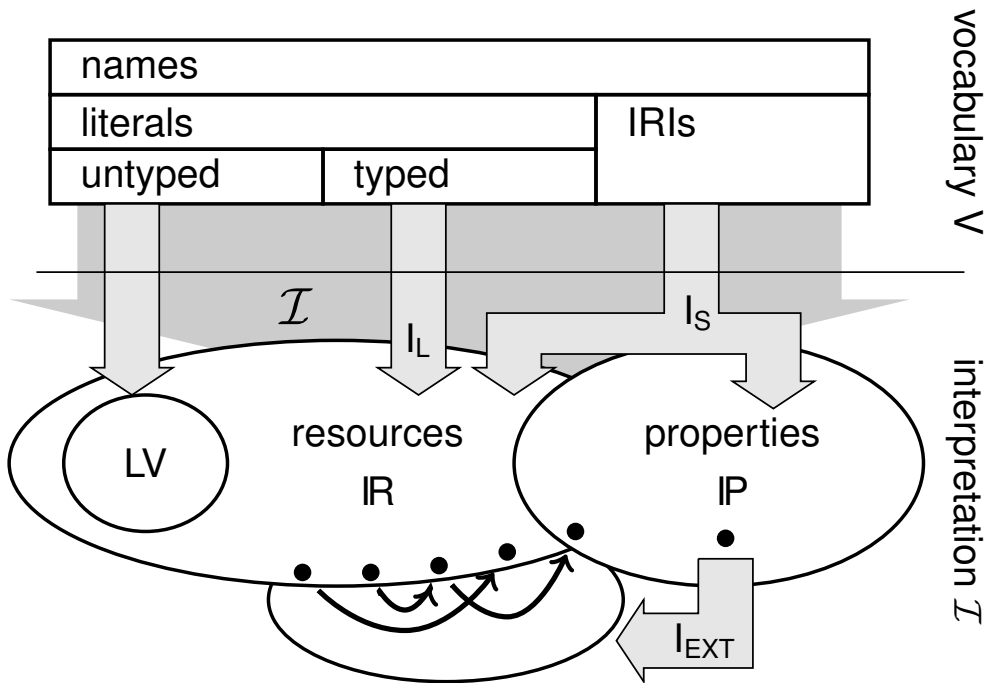


Semantics of the Simple Entailment

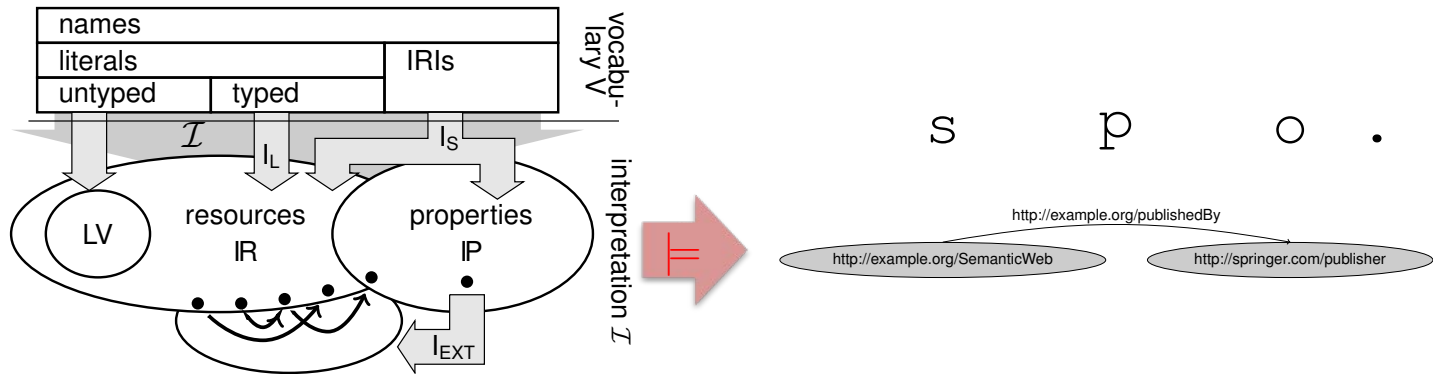
Interpretation (schematic):



Semantics of the Simple Entailment

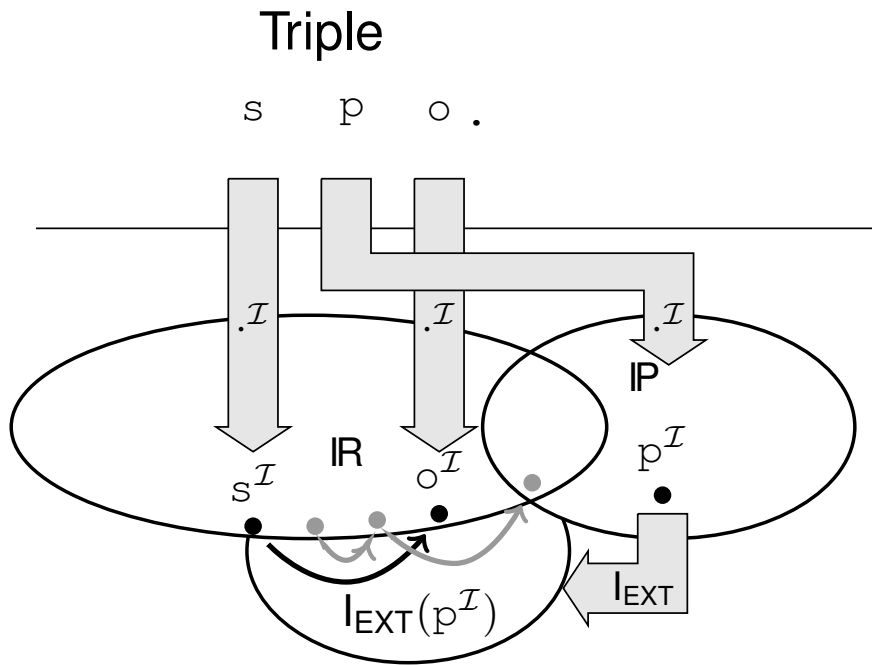
Question: When is a given interpretation a model of a triple?

- ... if subject, predicate, and object are contained in V
- ... and additionally $\langle s^{\mathcal{I}}, o^{\mathcal{I}} \rangle \in I_{EXT}(p^{\mathcal{I}})$ holds



Semantics of Simple Entailment

Schematically:



Semantics of Simple Entailment

- Assume, A is a function mapping all bnodes to elements of \mathbb{R}
- Given an interpretation \mathcal{I} ,
 - let $\mathcal{I} + A$ behave just like \mathcal{I} on the vocabulary,
 - and additionally, for every bnode $_:label$,
let $(_:label)^{\mathcal{I}+A} = A(_:label)$
- Now, an interpretation \mathcal{I} is a model of an RDF graph G ,
if there exists an A such that all triples are satisfied w.r.t. $\mathcal{I} + A$

We have extended \mathcal{I} by an interpretation A for the bnodes