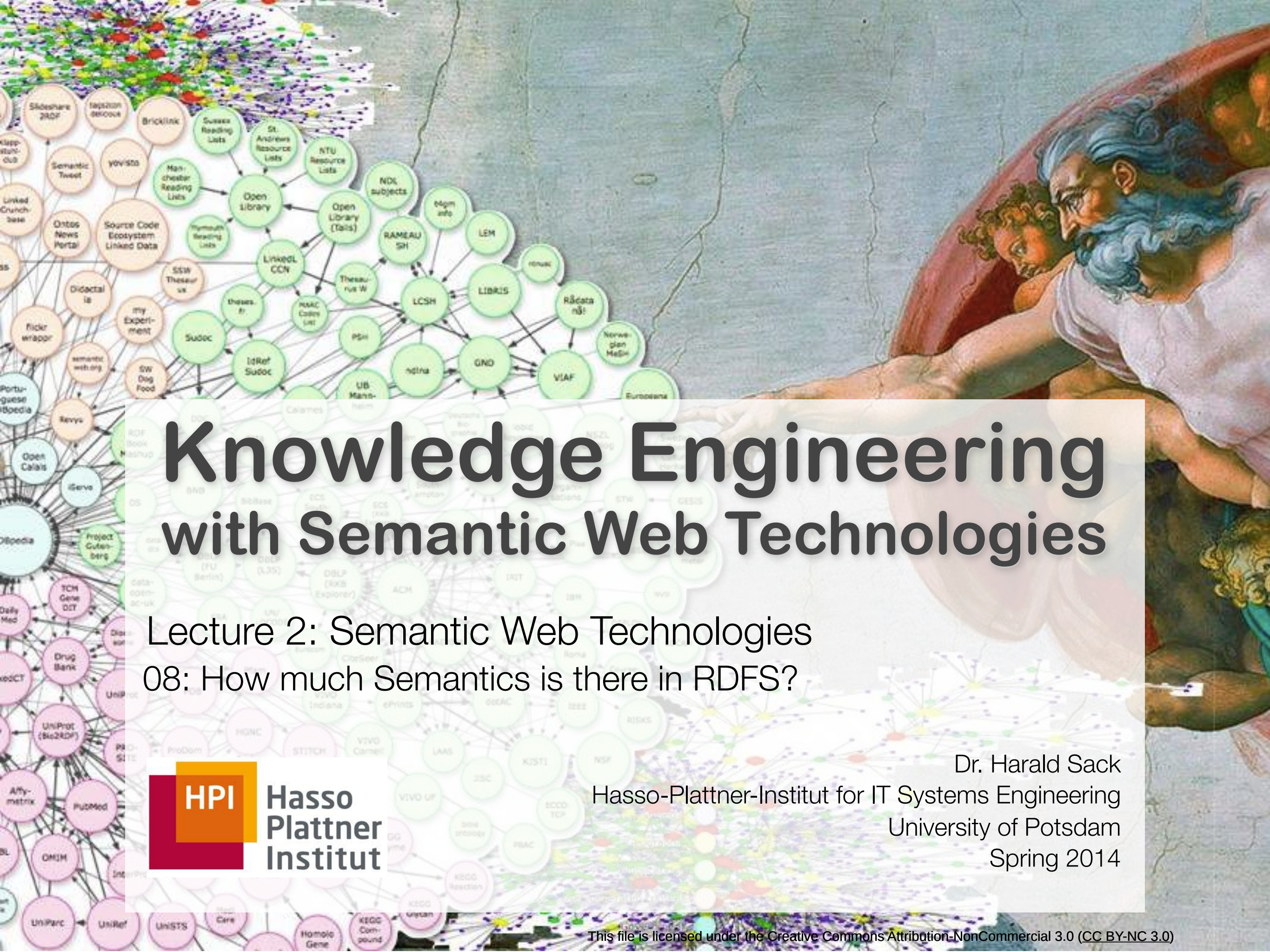




Knowledge Engineering with Semantic Web Technologies

Lecture 2: Semantic Web Technologies
08: How much Semantics is there in RDFS?



Dr. Harald Sack
Hasso-Plattner-Institut for IT Systems Engineering
University of Potsdam
Spring 2014



Lecture 2: Semantic Web Technologies - Part 1

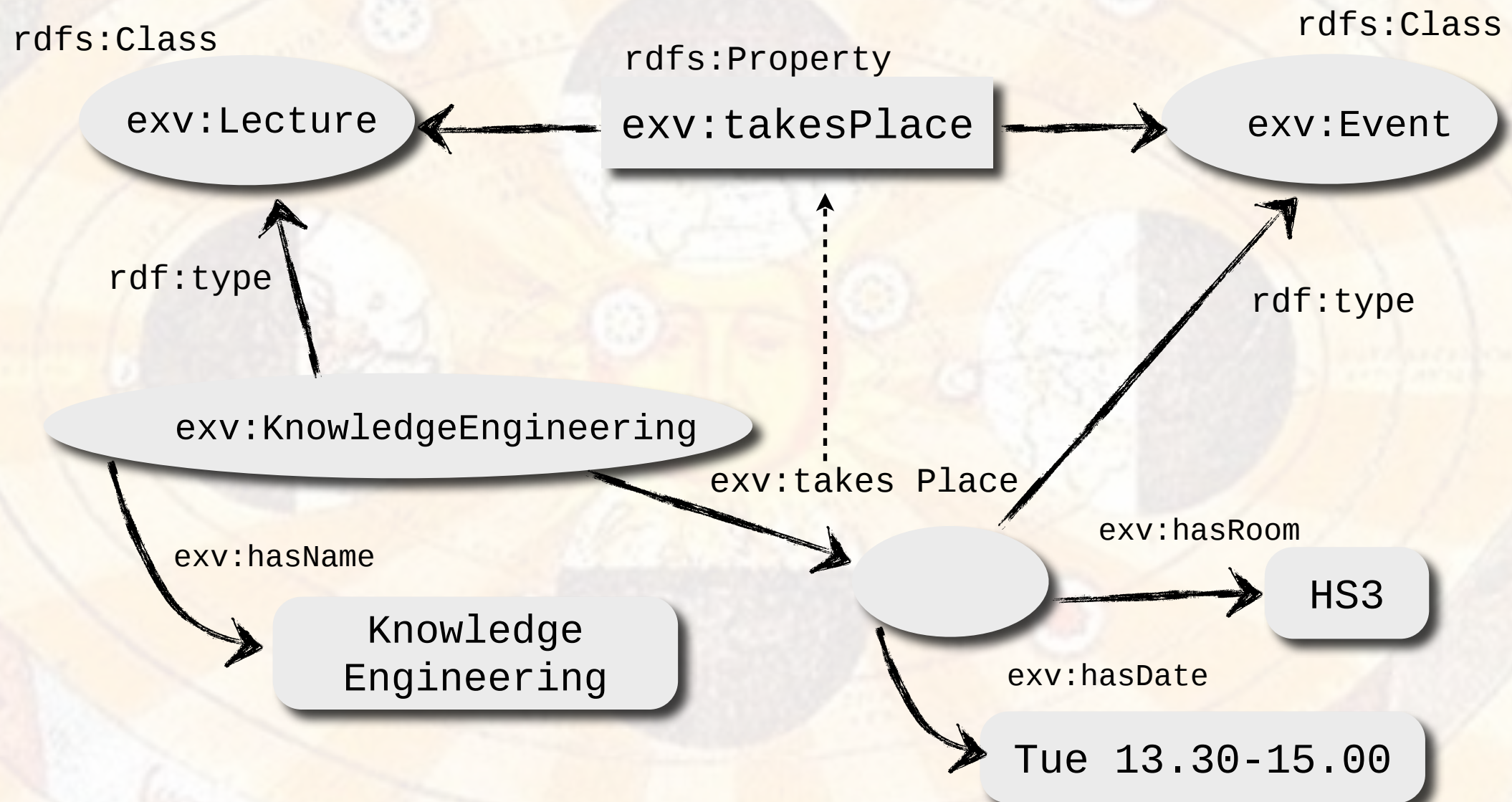
Open HPI - Course: Knowledge Engineering with Semantic Web Technologies



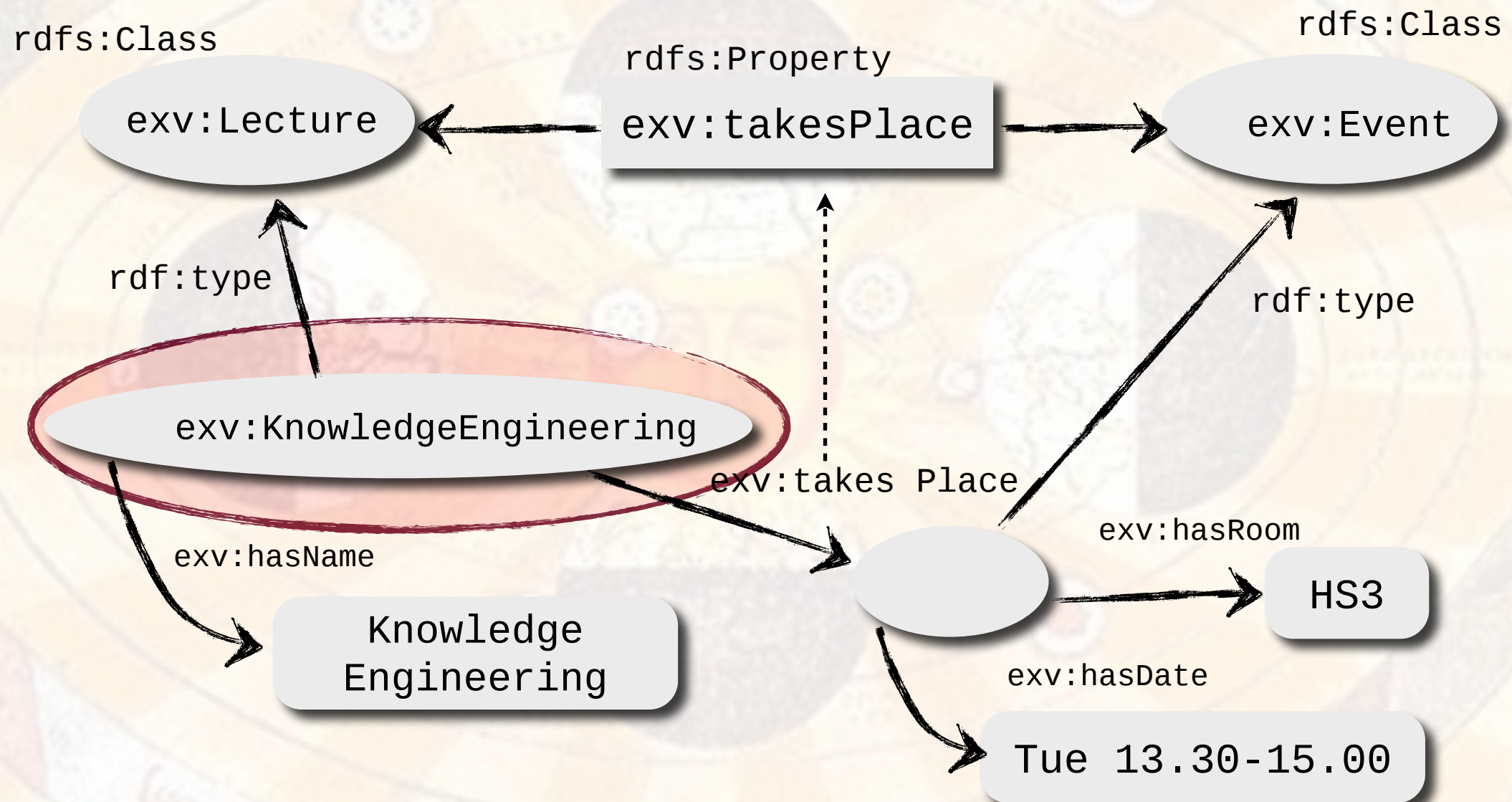
08 How much Semantics is there in RDF(S)

Open HPI - Course: Knowledge Engineering with Semantic Web Technologies
Lecture 2: Semantic Web Technologies Part I

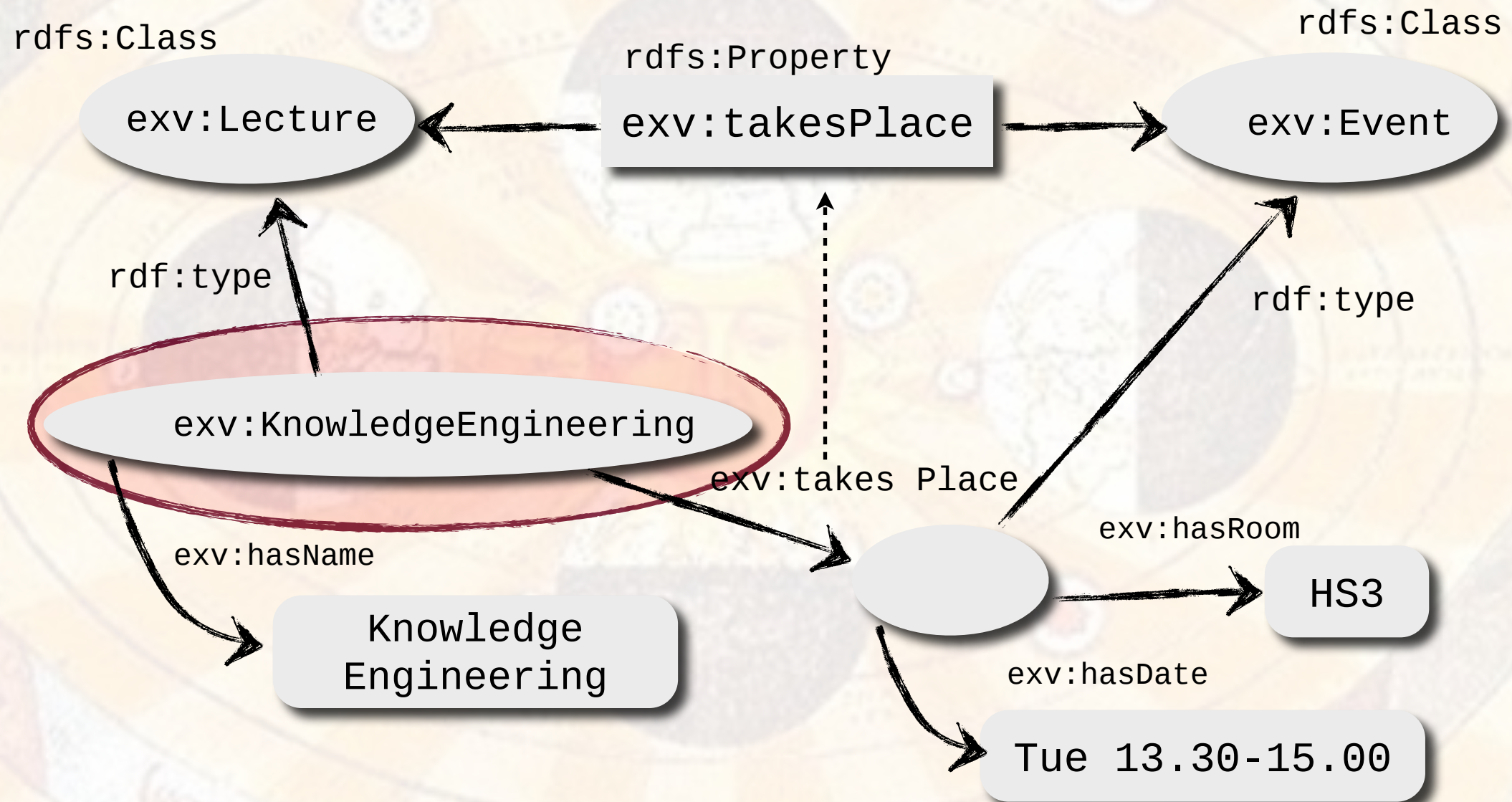
How much knowledge (semantics) is there in RDF(S)



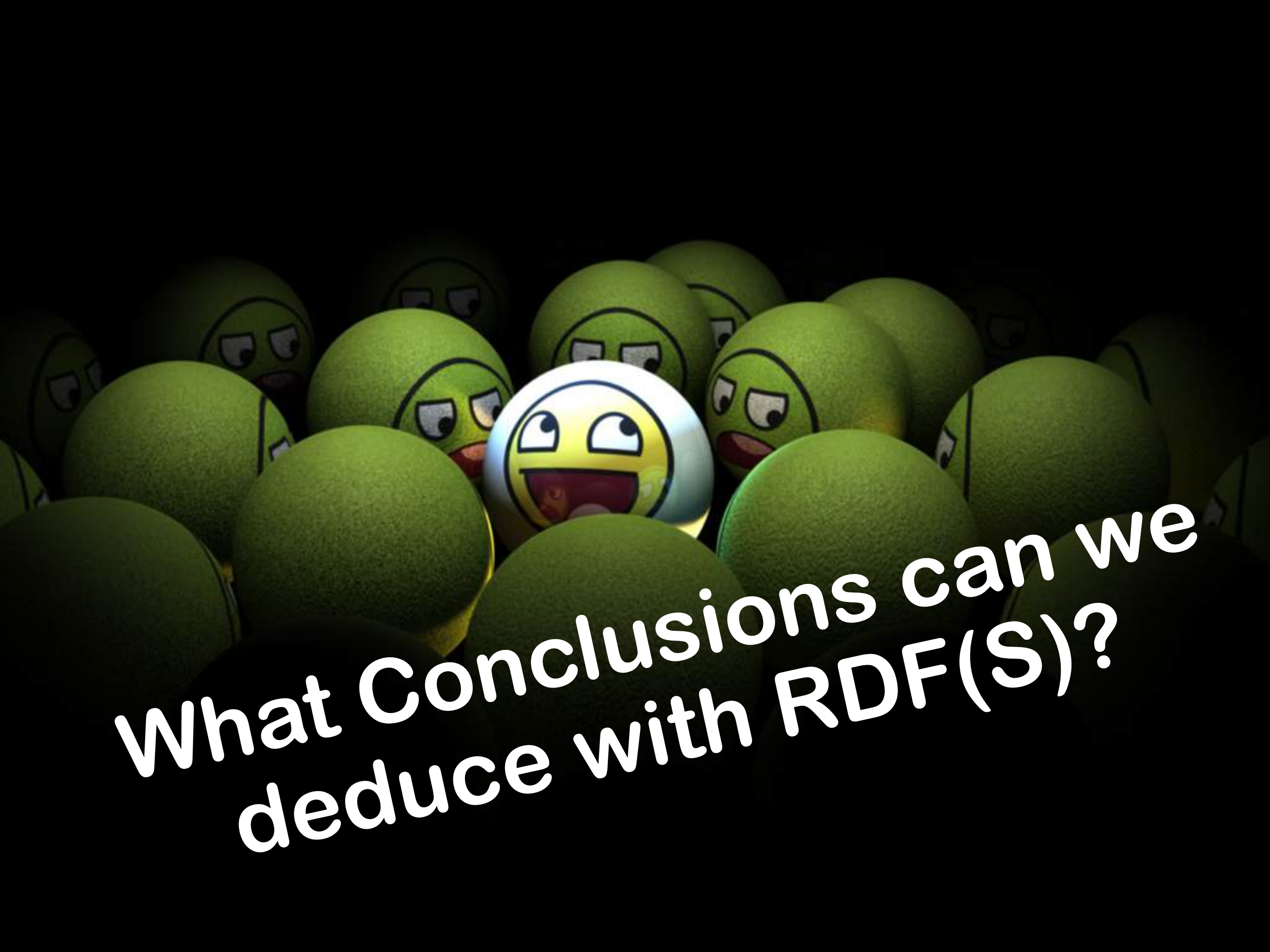
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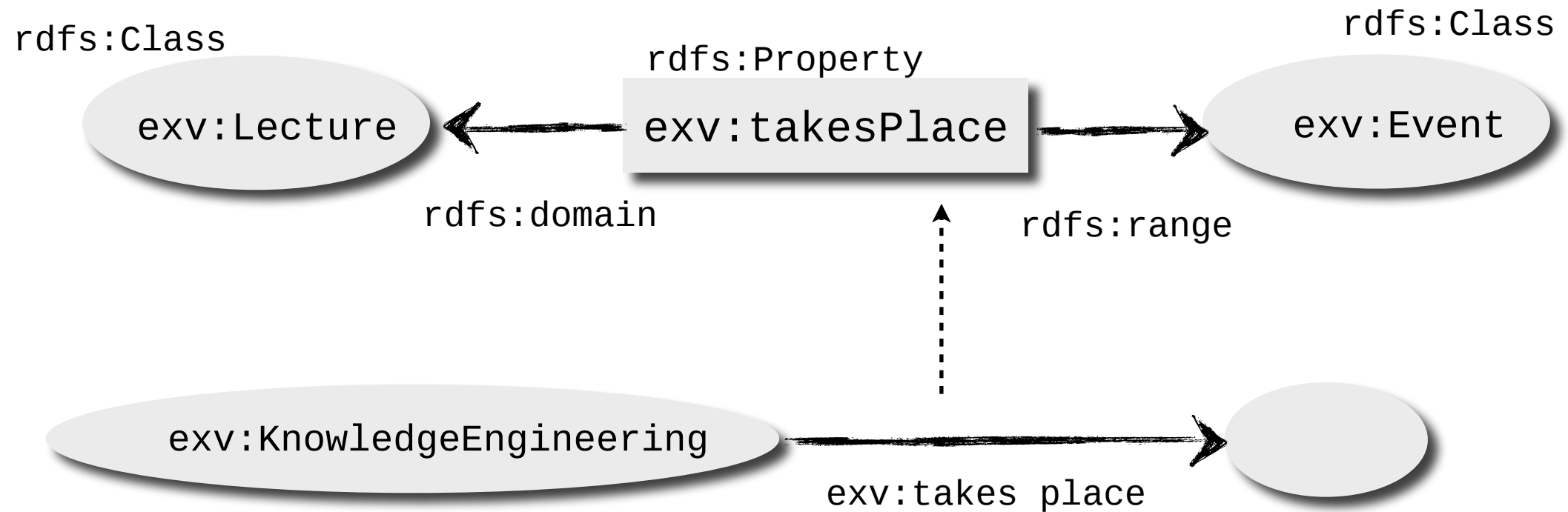


- The semantics of a term from an RDF(S) ontology is given in terms of its properties and its values (instances)

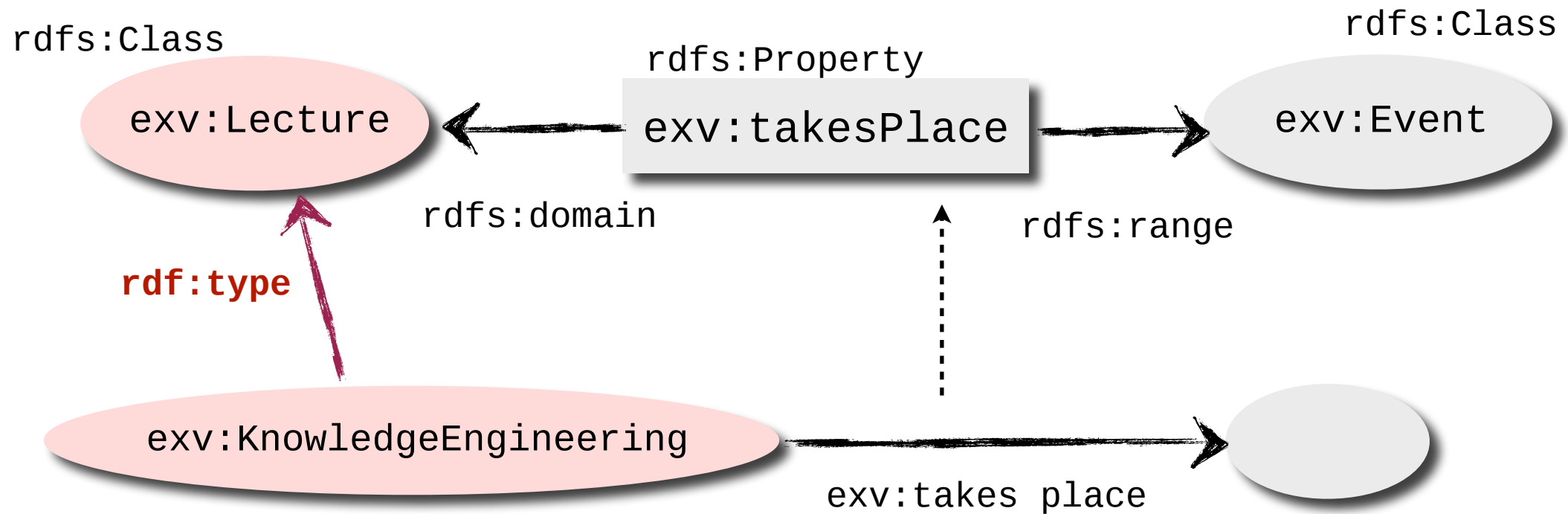


What Conclusions can we
deduce with RDF(S)?

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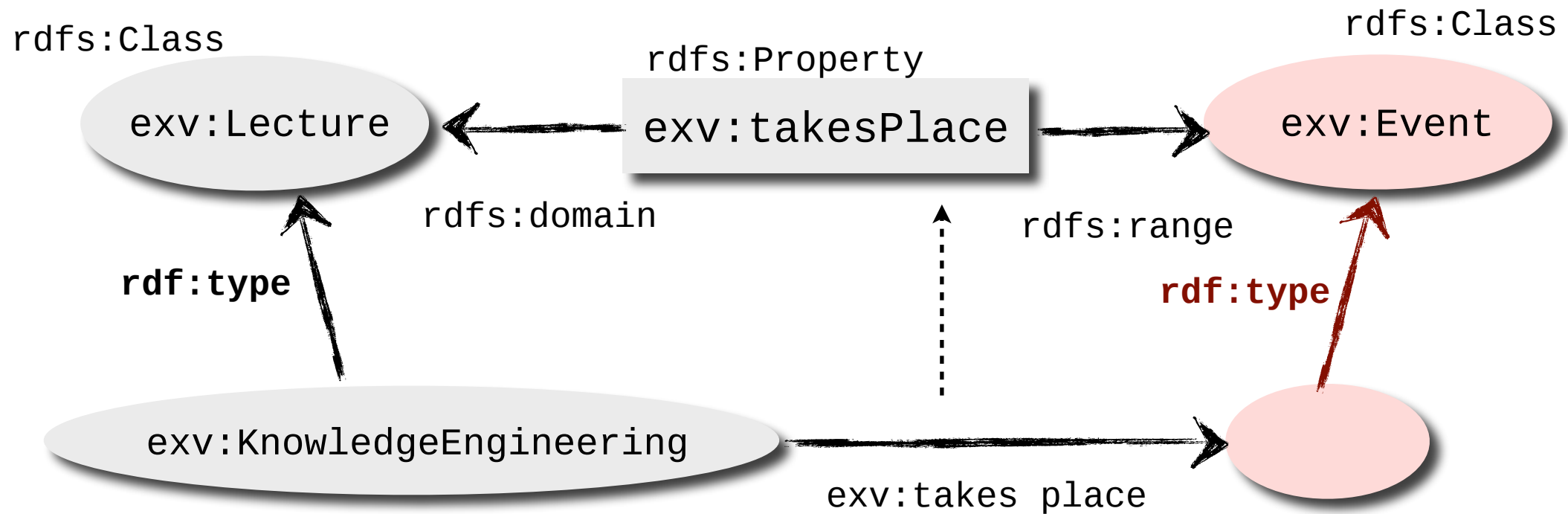


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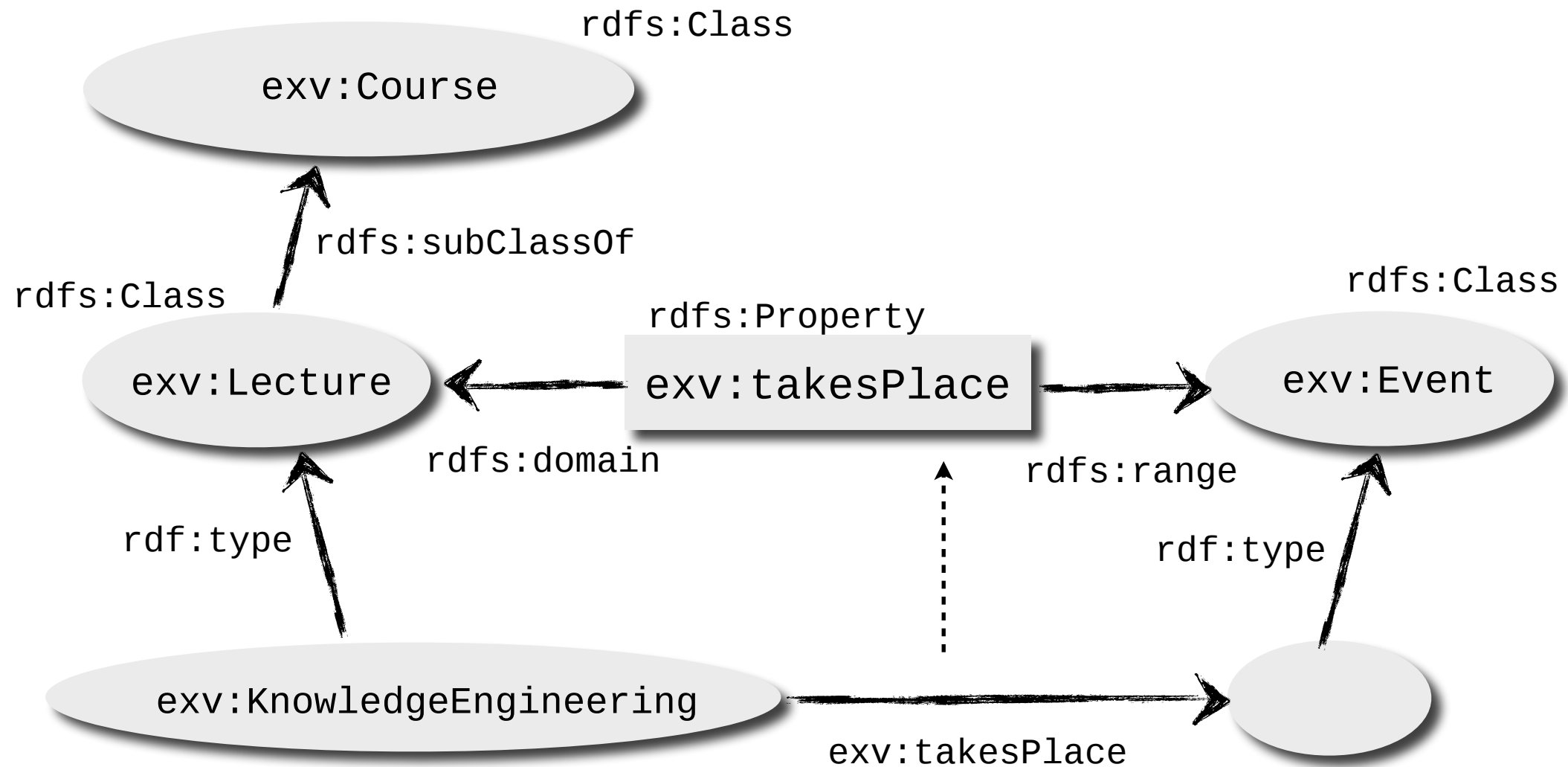
- Deduction of entity **class membership** from the domain of one of its properties

What conclusions can we deduce with RDF(S)?

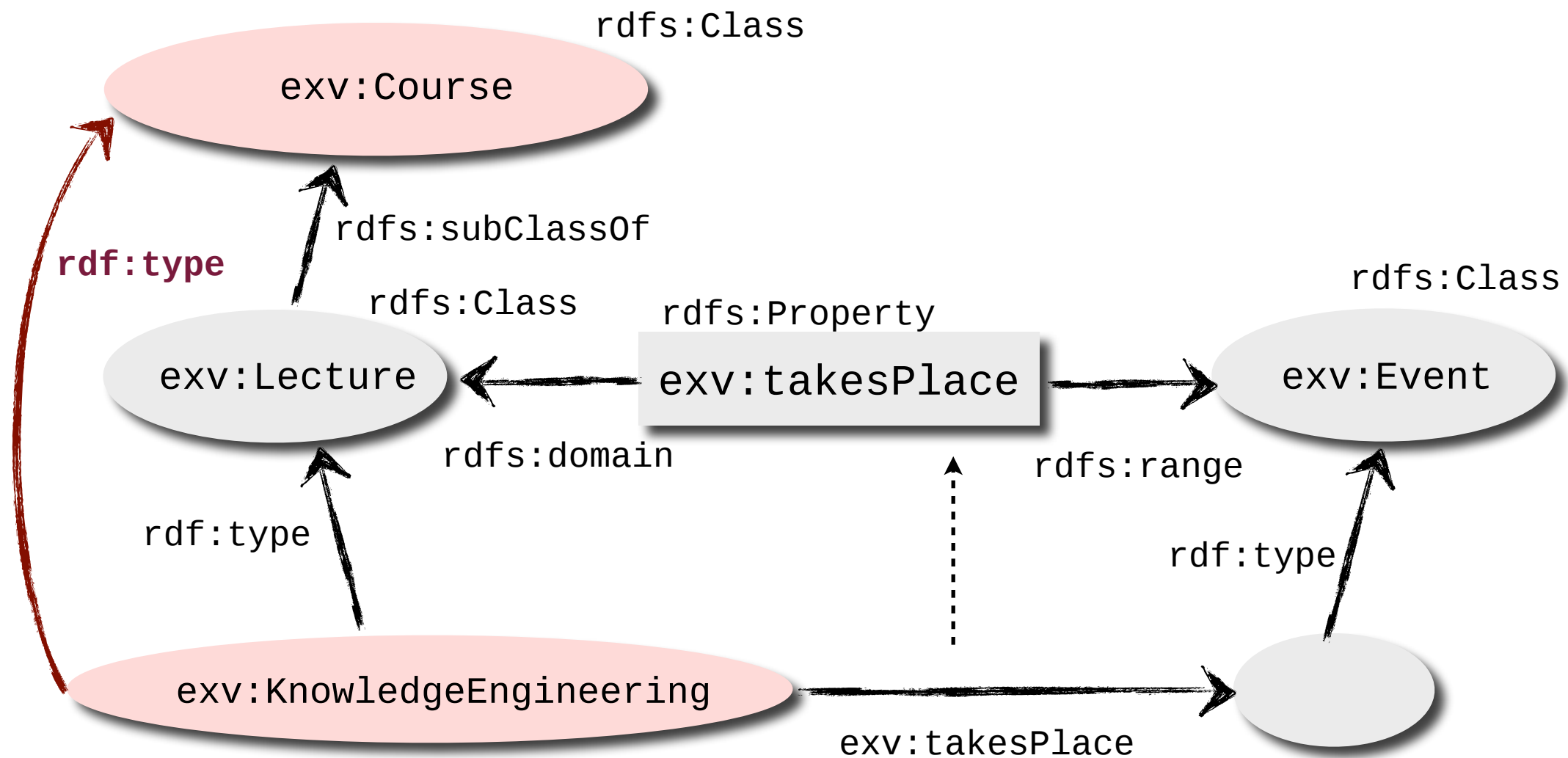


- Deduction of entity **class membership** from the range of one of its properties

What conclusions can we deduce with RDF(S)?

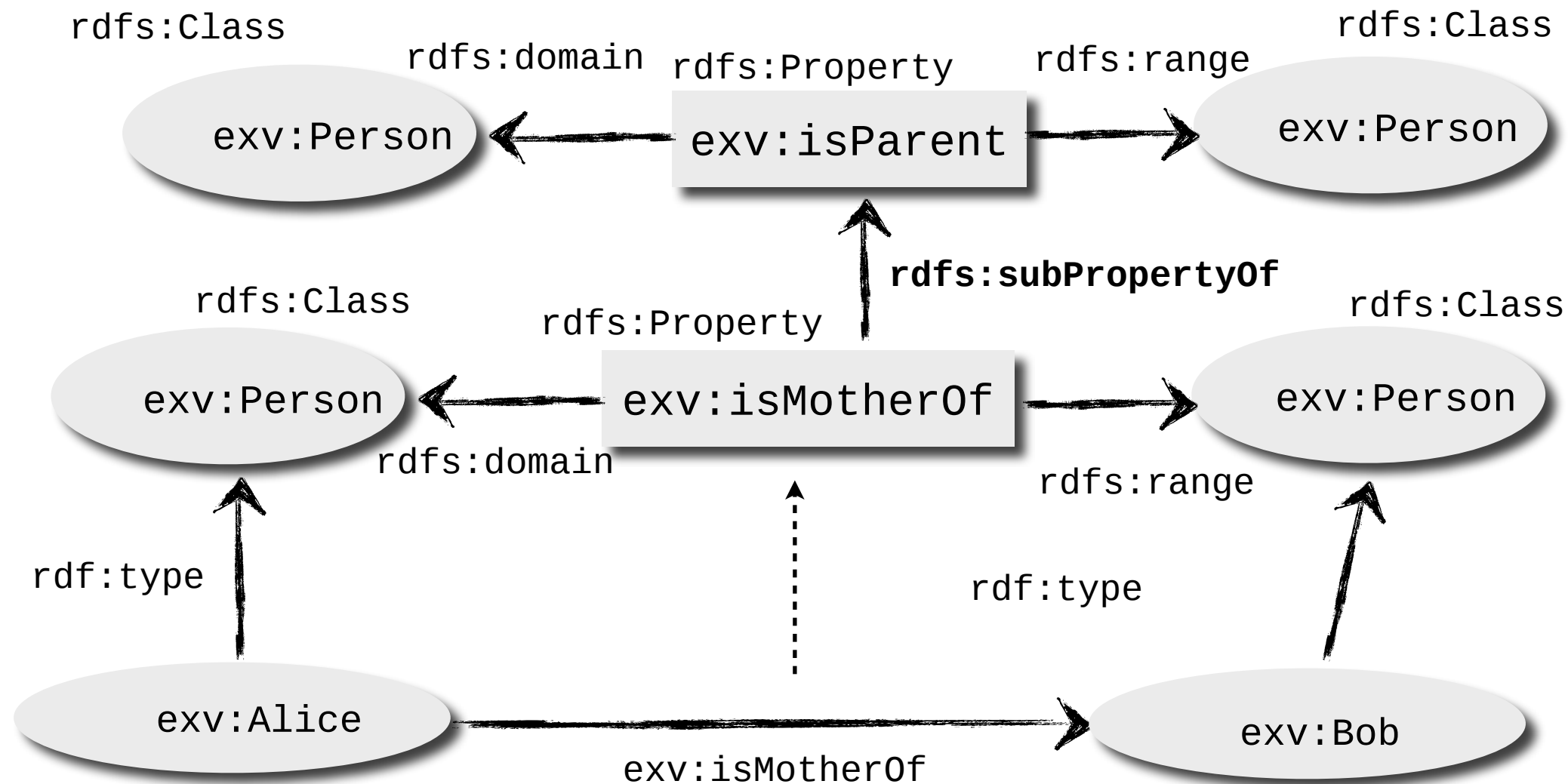


What conclusions can we deduce with RDF(S)?

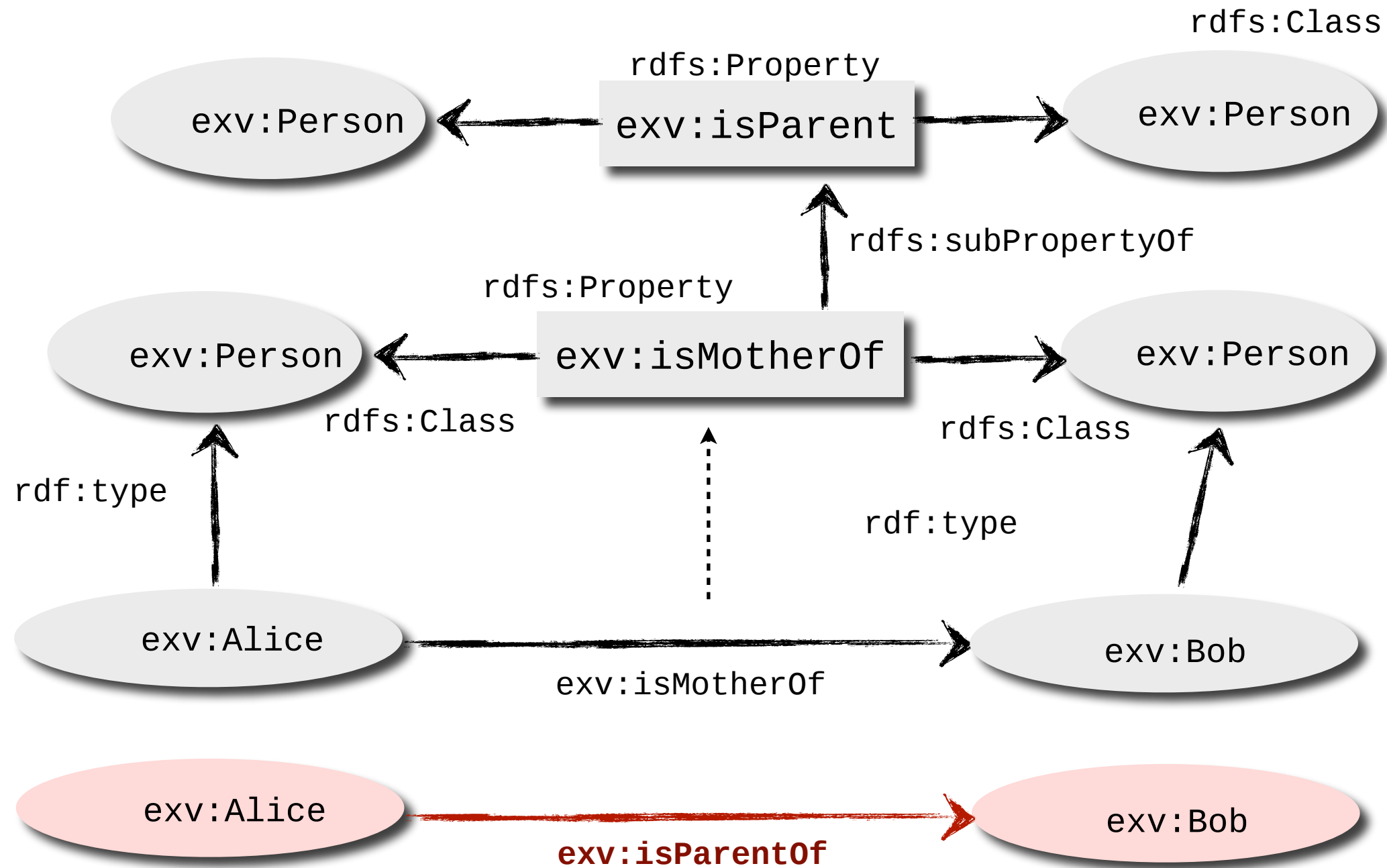


- Deduction of entity super**class membership** from a class hierarchy.

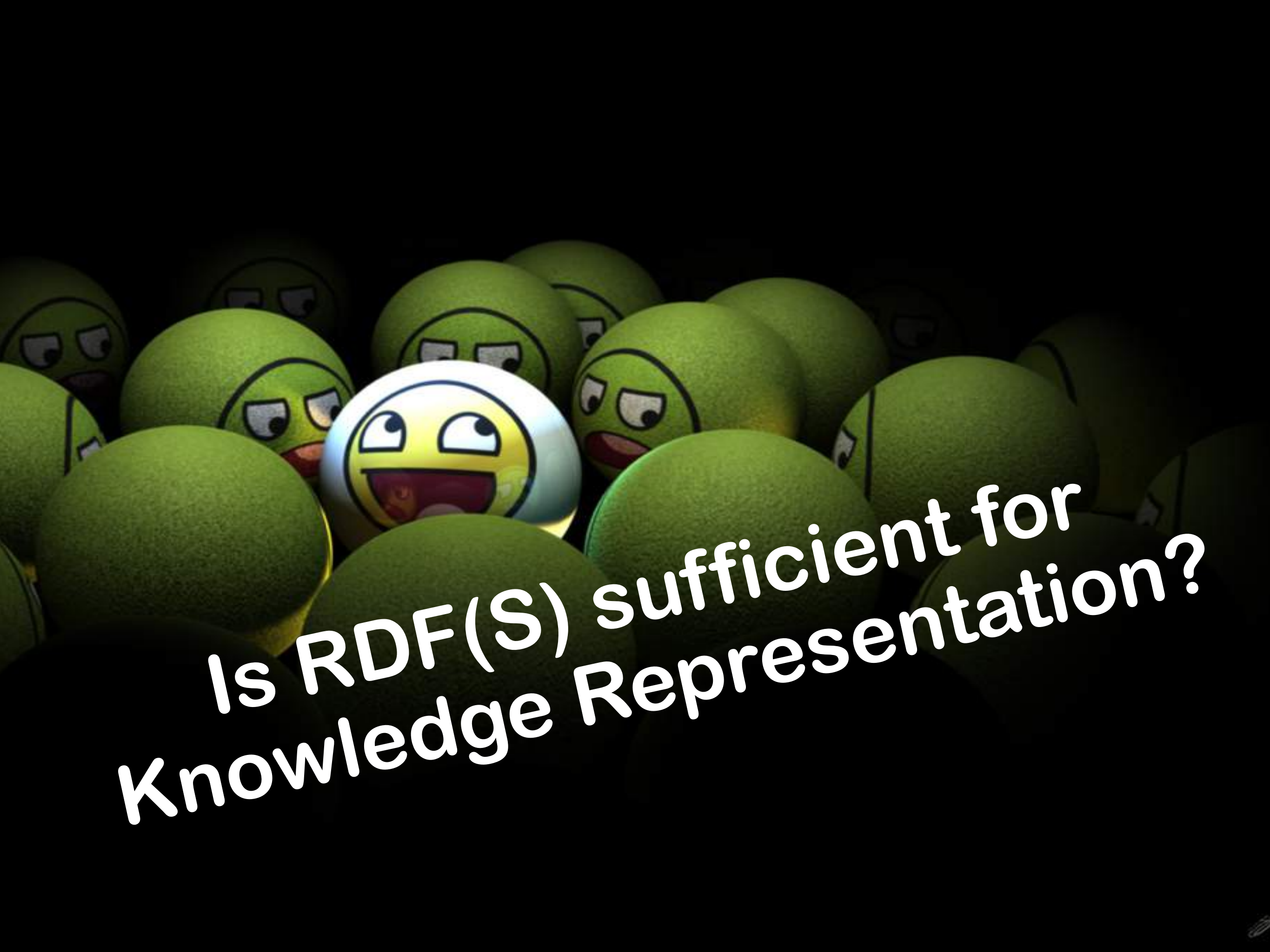
What conclusions can we deduce with RDF(S)?



What conclusions can we deduce with RDF(S)?



- Deduction of **new facts** from subproperty relationships



Is RDF(S) sufficient for
Knowledge Representation?



Lecture 3.1 How to query RDF(S) ? - SPARQL

Knowledge Engineering with Semantic Web Technologies - Semantic Web Technologies Pt.2