

\mathcal{B} -object – particular, cannot have instances

OFM manifestations:

- ▶ individuals
- ▶ (rare) data values

PURO OBML Primitives (cont.)

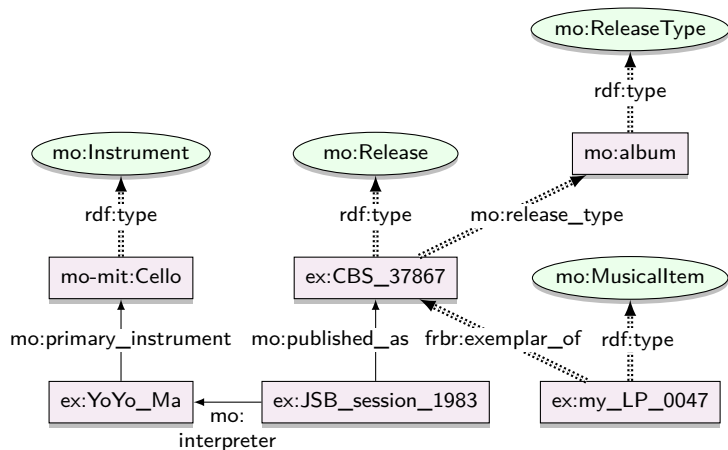
\mathcal{B} -type – universal, entity that possibly can have instances

- ▶ Includes qualities (type of red things)
- ▶ Type hierarchy: \mathcal{B} -objects (level 0), level 1 \mathcal{B} -types, level 2 \mathcal{B} -types, . . .
- ▶ Homogeneity: instances of level n type are all of level $n - 1$

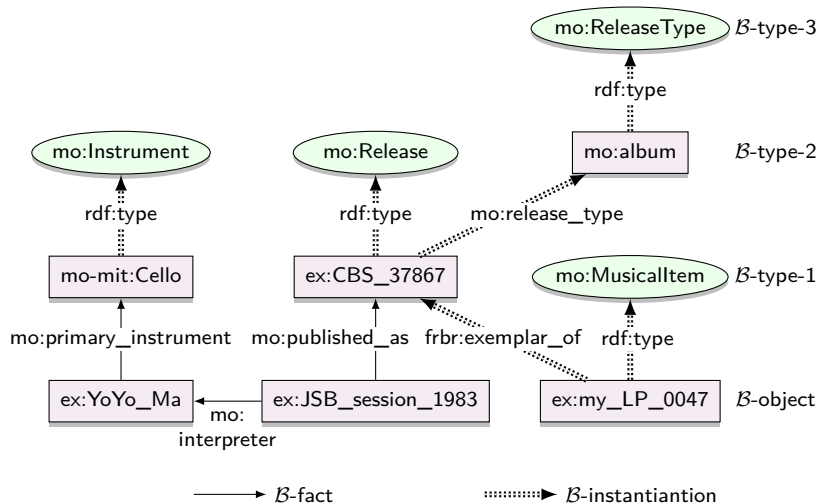
OFM manifestations:

- ▶ class
- ▶ individual
- ▶ data value

Example – Music Ontology



Example – Music Ontology



\mathcal{B} -relationship – particular, relationship between 2 \mathcal{B} -objects or \mathcal{B} -types

OFM manifestations:

- ▶ object property assertion
- ▶ data property assertion
- ▶ many others

\mathcal{B} -valuation – particular, quantitative value assignment to \mathcal{B} -object or \mathcal{B} -type

OFM manifestations:

- ▶ data property assertion

\mathcal{B} -relation & \mathcal{B} -attribute – universals, types of \mathcal{B} -relationships and \mathcal{B} -attributes **OFM manifestations:**

- ▶ object property
- ▶ data property

\mathcal{B} -instantiation – relationship associating a \mathcal{B} -object with a \mathcal{B} -type

\mathcal{B} -axiom – set theoretical relationship between \mathcal{B} -types

\mathcal{B} -fact – any other relationship between \mathcal{B} -object and/or \mathcal{B} -types

- ▶ includes n -ary relationships and valuations

Example – \mathcal{B} -Instantiation

```
mo:album rdf:type mo:ReleaseType .
```

```
ex:CBS_D3_37867 mo:release_type mo:album .
```

```
ex:s gr:category "MusicSeller/VinylSeller"^^xsd:string .
```

Example – \mathcal{B} -Axioms

mo-mit:Cello skos:narrower mo-mit:Violins .

mo-mit:ElectricCello skos:narrower mo-mit:Cello .

Example – \mathcal{B} -Facts

ex:YoYo_Ma mo:primary_instrument mo-mit:Cello .

ex:o rdf:type gr:Offering ;
gr:eligibleRegions "US-CA"^^xsd:string .