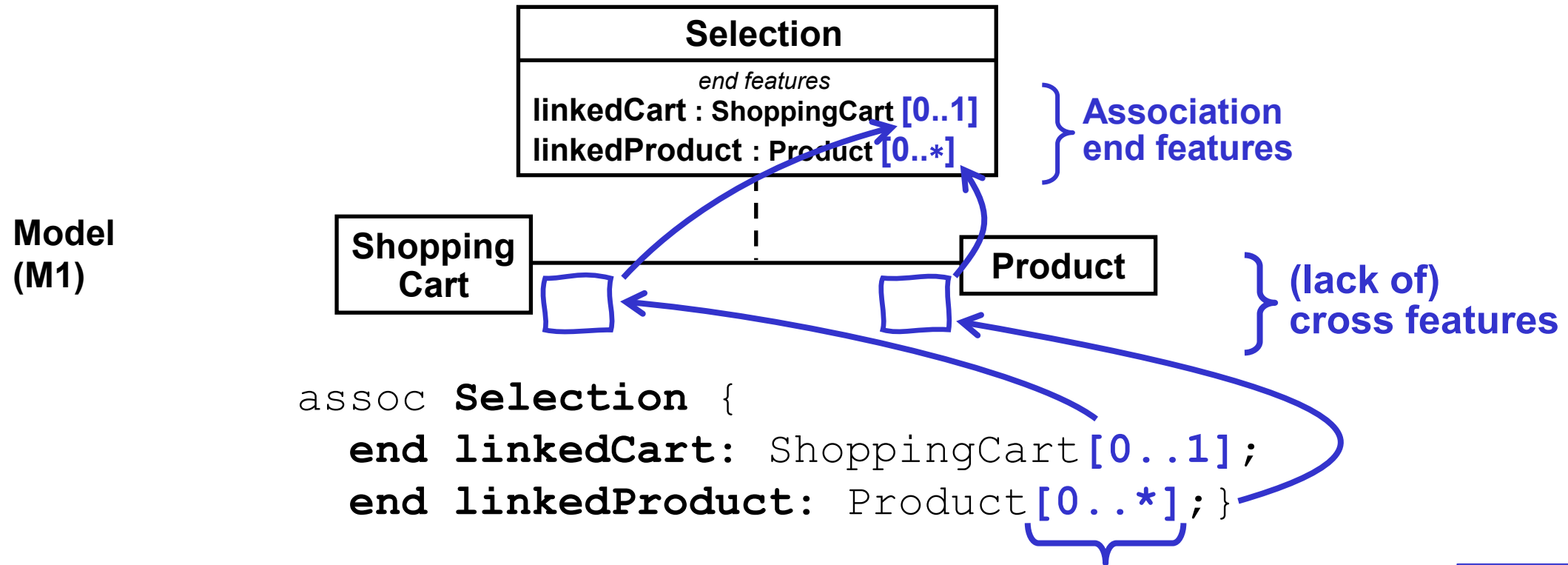


Redundancy in association end multiplicities, ordering, and uniqueness

- Background in [sysml-1-assoc-review-10.pdf](#)
- Term definitions in [KERML-34](#)
- Issue: [KERML-36](#)

Assoc Syntax (multiplicity ...)



- End multiplicity is about “**cross navigation**”
 - **Useful** when cross features do not exist
 - As in one-way and non-navigable associations.
 - But when they **exist** ...

Same for
ordering and
uniqueness

Assoc Syntax **Redundancy** (multiplicity ...)

KERML-36

Model
(M1)



Binary only

```
class Product { feature inCart: ShoppingCart [0..1]; }
class ShoppingCart { feature selectedProduct: Product [0..*]; }
assoc Selection {
  end linkedCart: ShoppingCart [0..1] subsets linkedProduct.inCart;
  end linkedProduct: Product [0..*] subsets linkedCart.selectedProduct; }
```

- Multiplicity **redundant** and possibly **conflicting**
 - between (binary) end and cross features.
 - due to redundancy in **abstract syntax**.

Same for ordering and uniqueness