

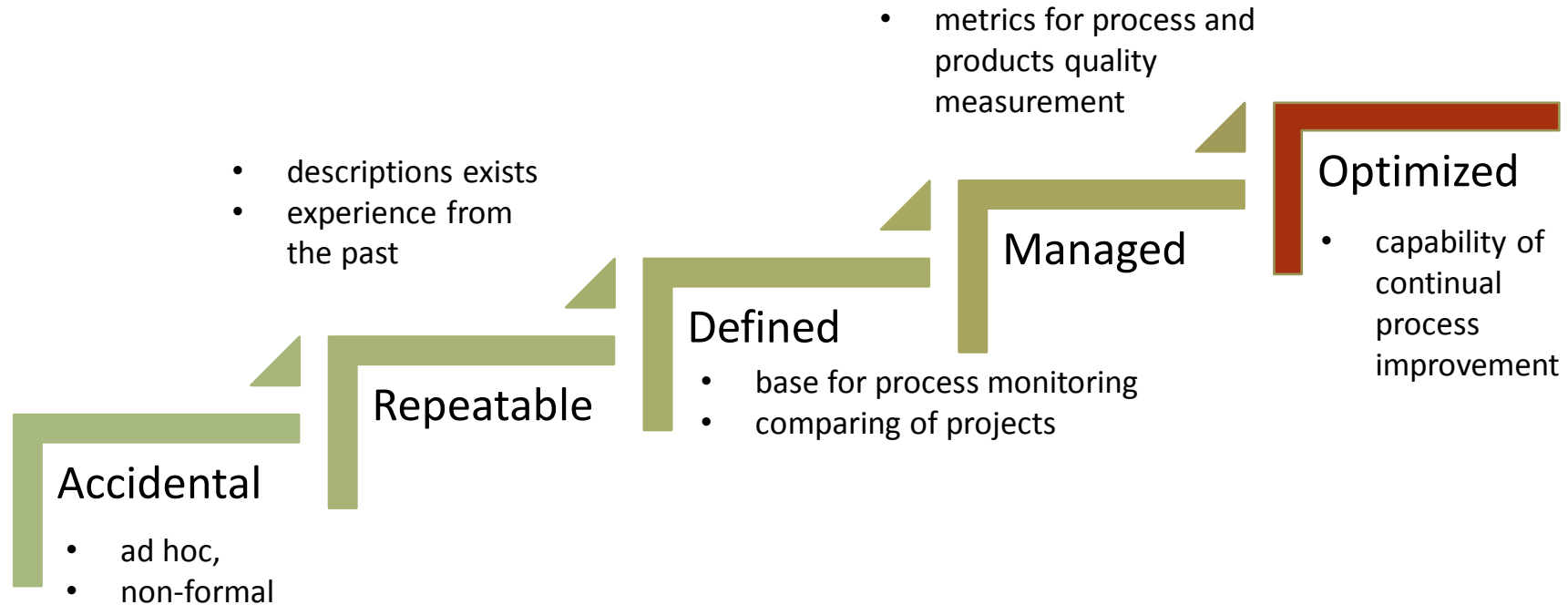
# Service Modeling

How to work in multidisciplinary teams?

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# Universal modelling

CMM



How long does it take for regular ISs to adjust in order to support newly optimized processes?

# Current Modelling Tools

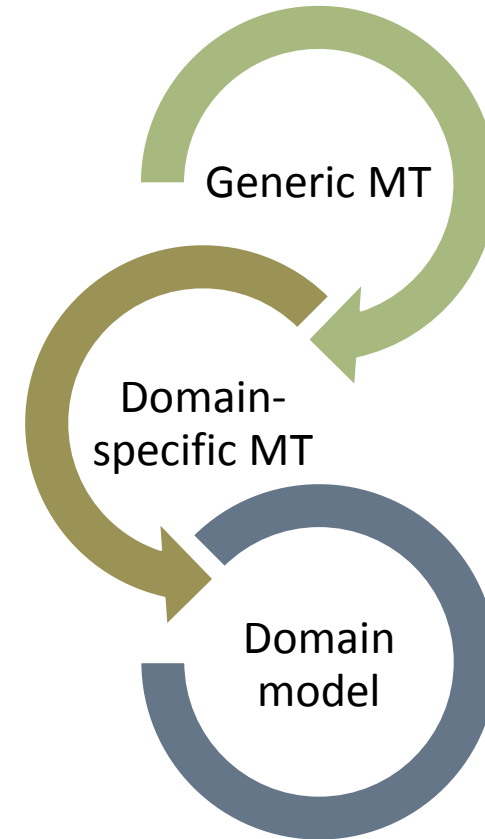
1. Current CASE tools, BPMT, PMT, ... allow to record only such objects and relationships, which had their creators in **minds** in the time when they were developing the tool.
2. Objects and relationships, we focus on when modeling various aspects of business, are **continually changing**.
3. Problem of effective communication within any IT project lies nearly always **on boundaries of capability** of a given modeling tool (... thus the model doesn't represent the reality appropriately)
4. Except of some isolated cases, there are only **few ways to extend** used MT by constructs which are needed for current specific requirements.
5. A problem arises in **integration** of some partial views into one common view.

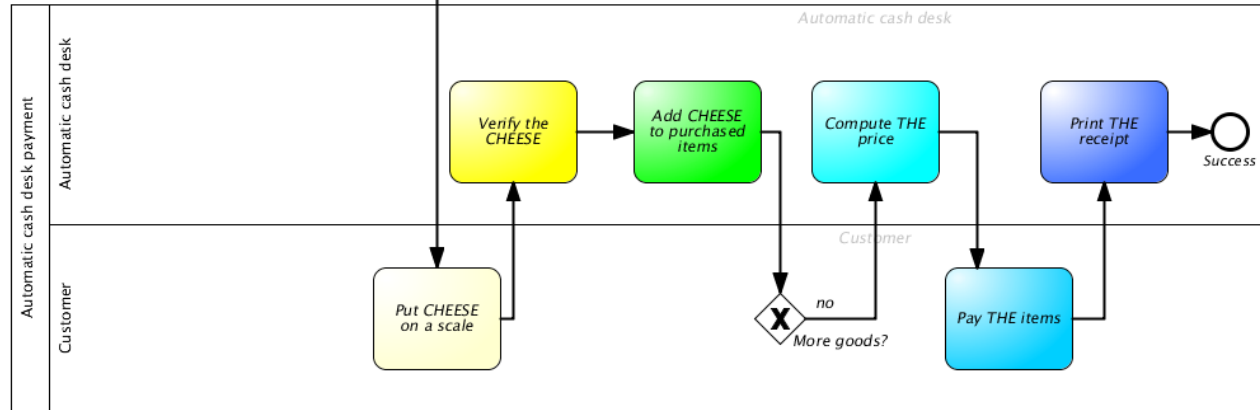
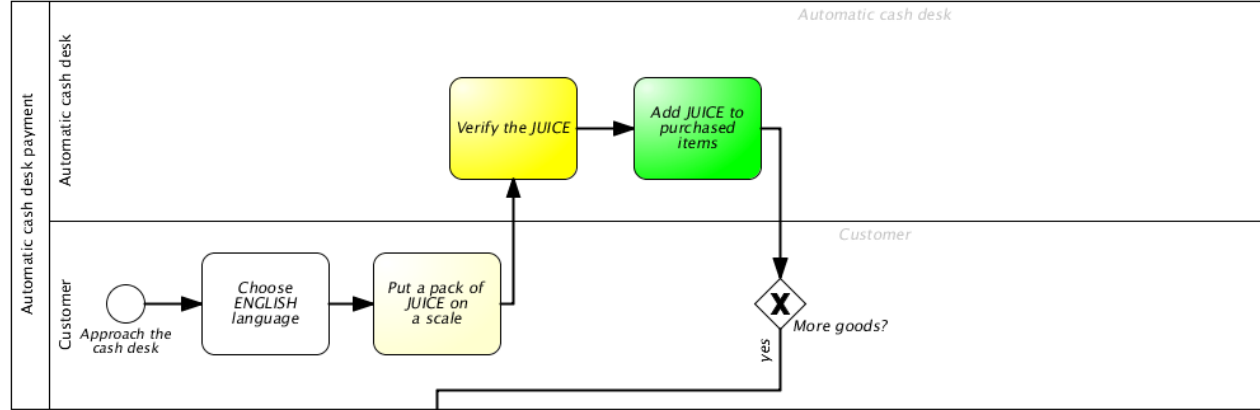
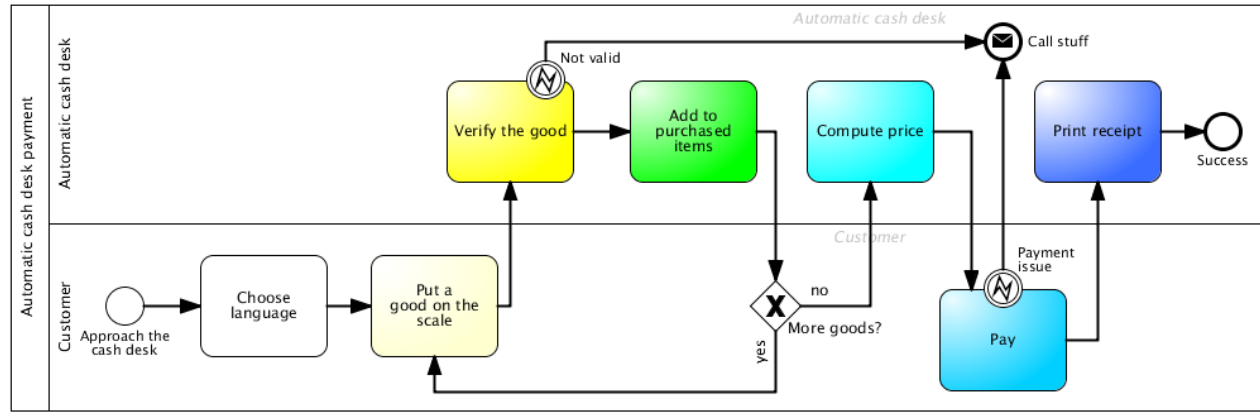
# Meta-modelling

Ability to develop and adjust domain-specific modelling tools

Helps to construct the domain in terms comprehensible to domain experts

Hierarchy of modelling tools





# How do we model reality in our heads?

We identify...



Object -s

...we find interesting

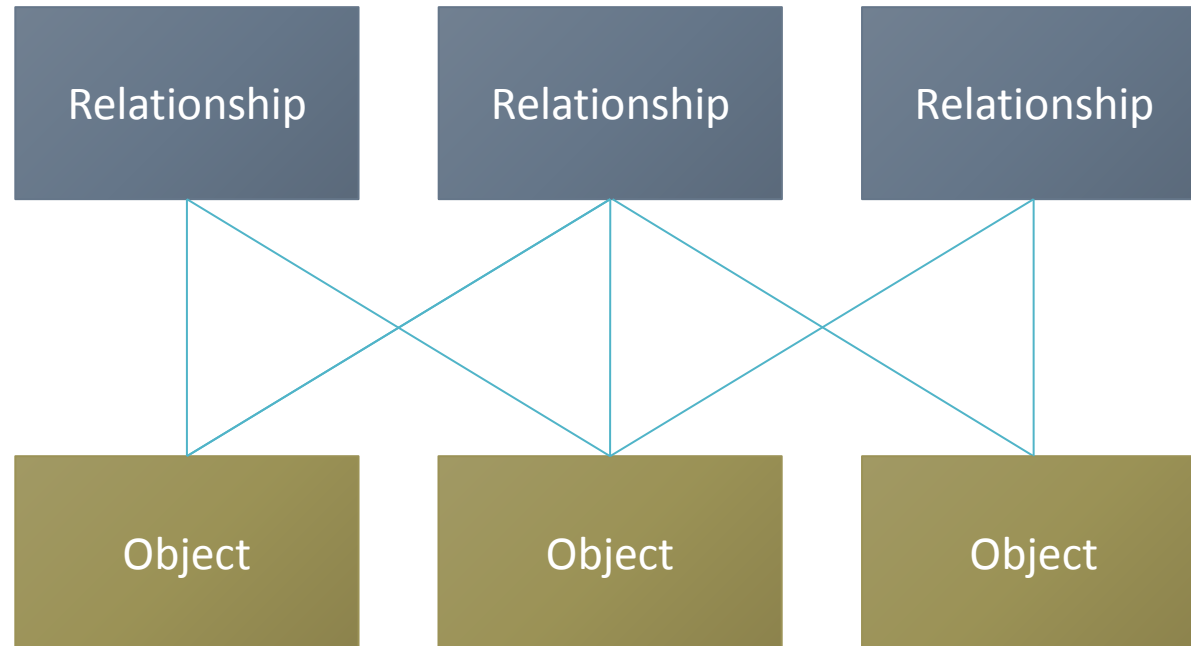
Then, we find...

Relationship -s

...between our...

Object -s

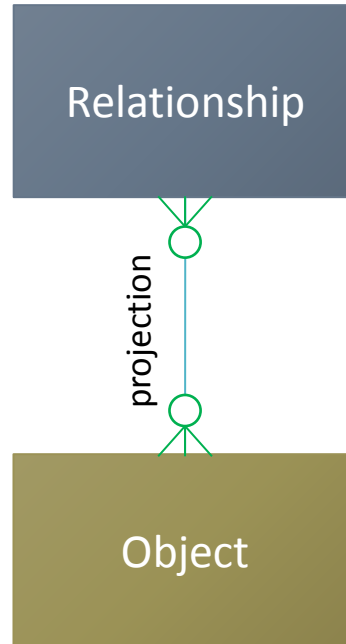
Each **relationship** can connect multiple objects...



...and each object can be present in multiple connections.



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...and each object can be present in multiple connections.

Which objects do we find interesting for modelling?

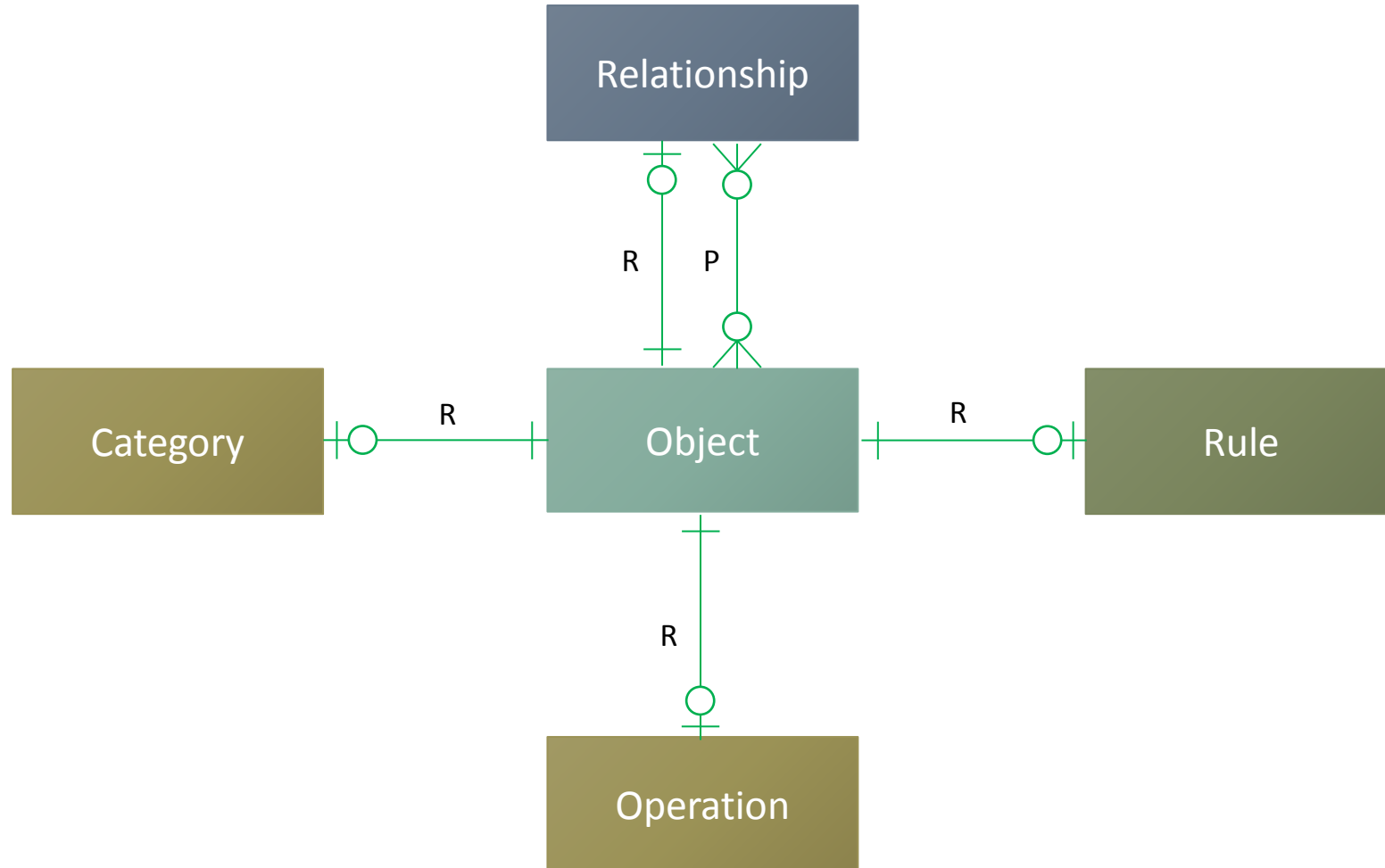
Relationship

Category

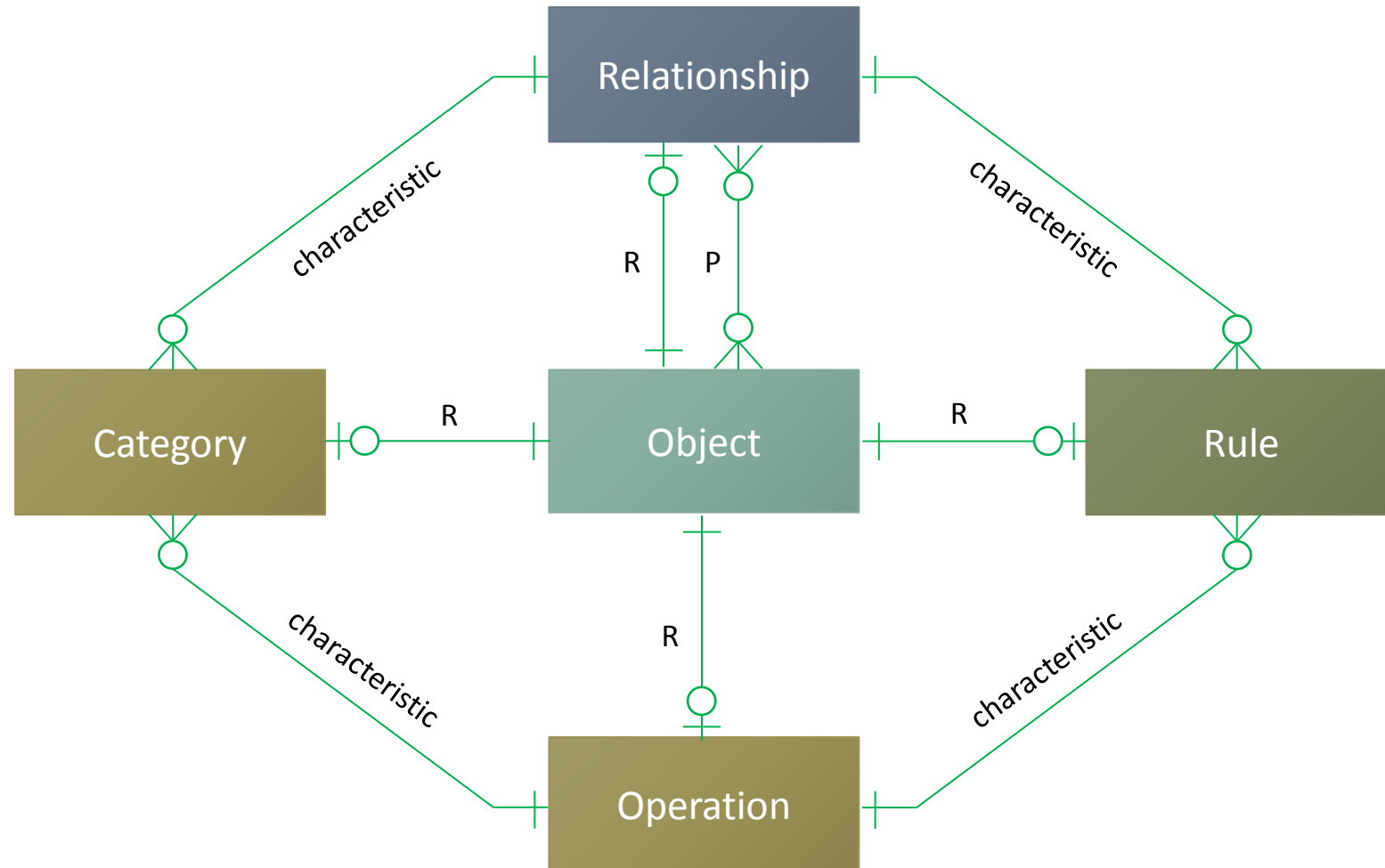
Rule

Operation

# MENTION – USE duality



# Diamond of Attention Focussing



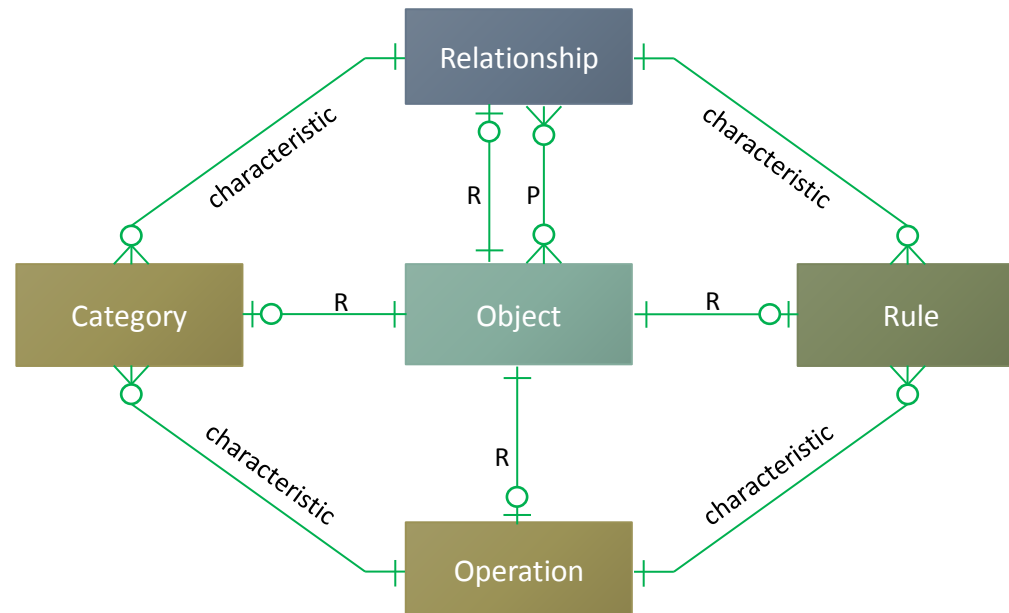
# Diamond of Attention Focussing

Objects and relationships between them

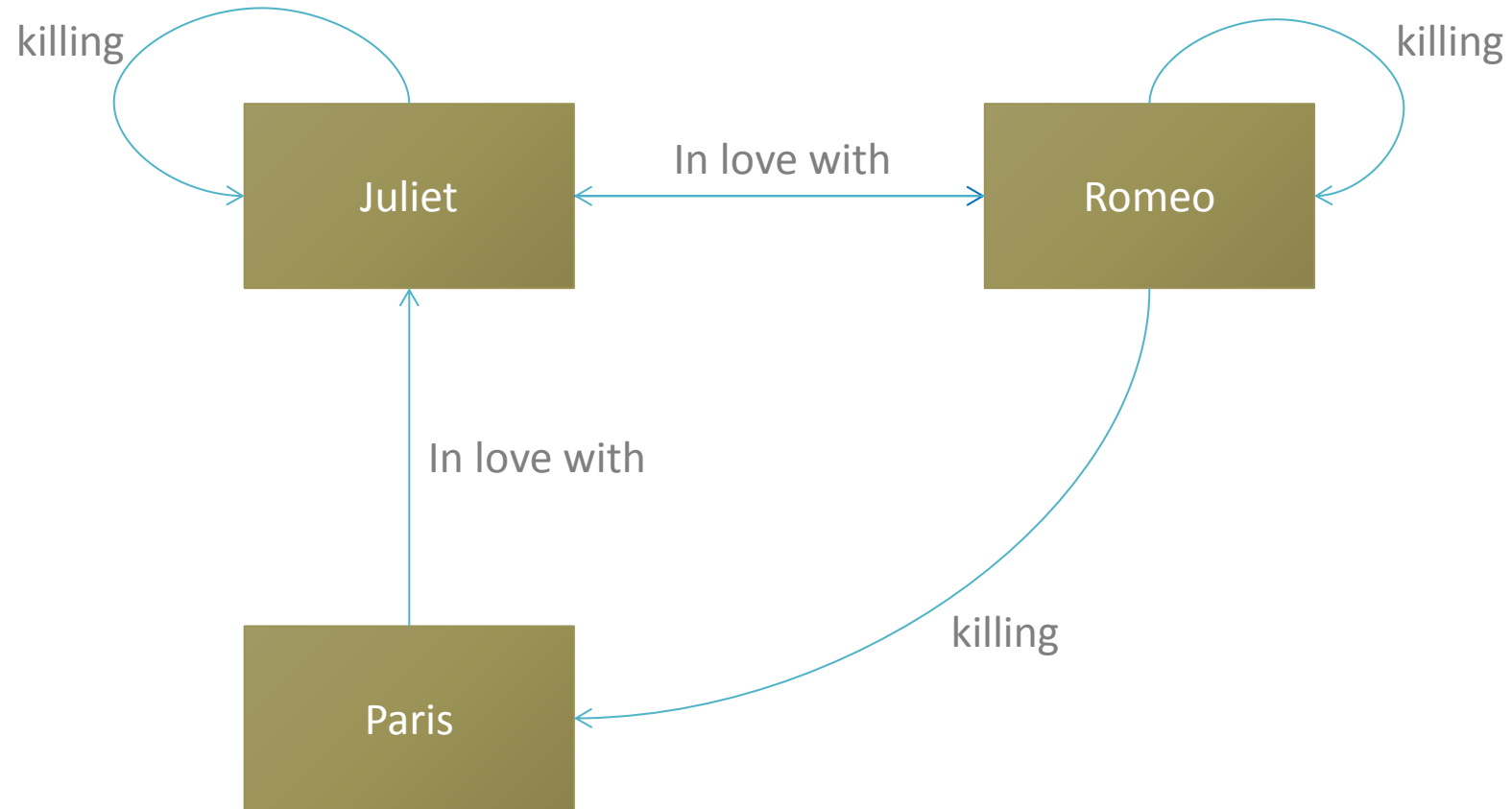
Mention-use duality

Modelling a modelling tool

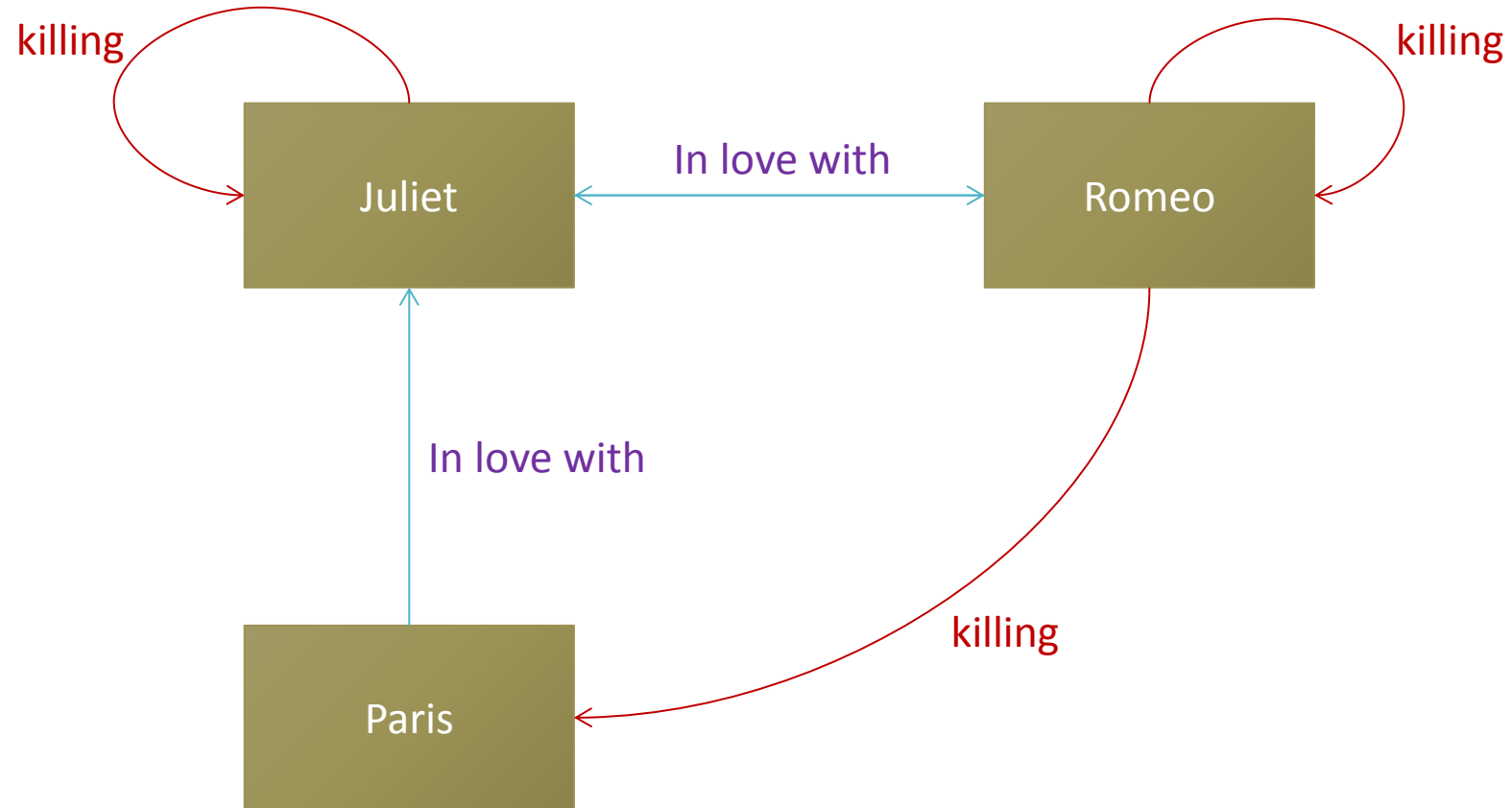
Referring to itself



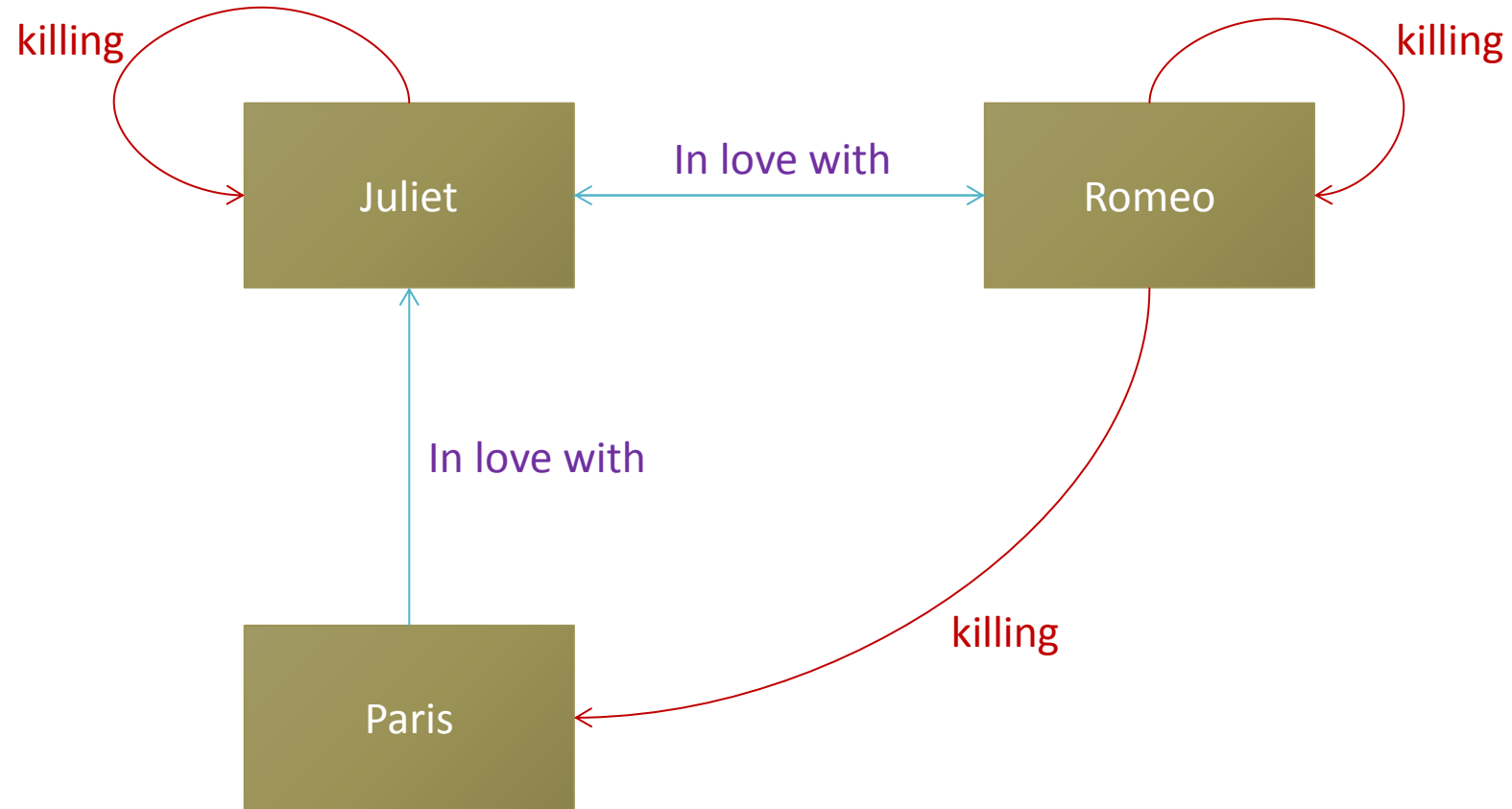
# Classification example



We can see that some connections are somehow similar – they belong to the same **category**:

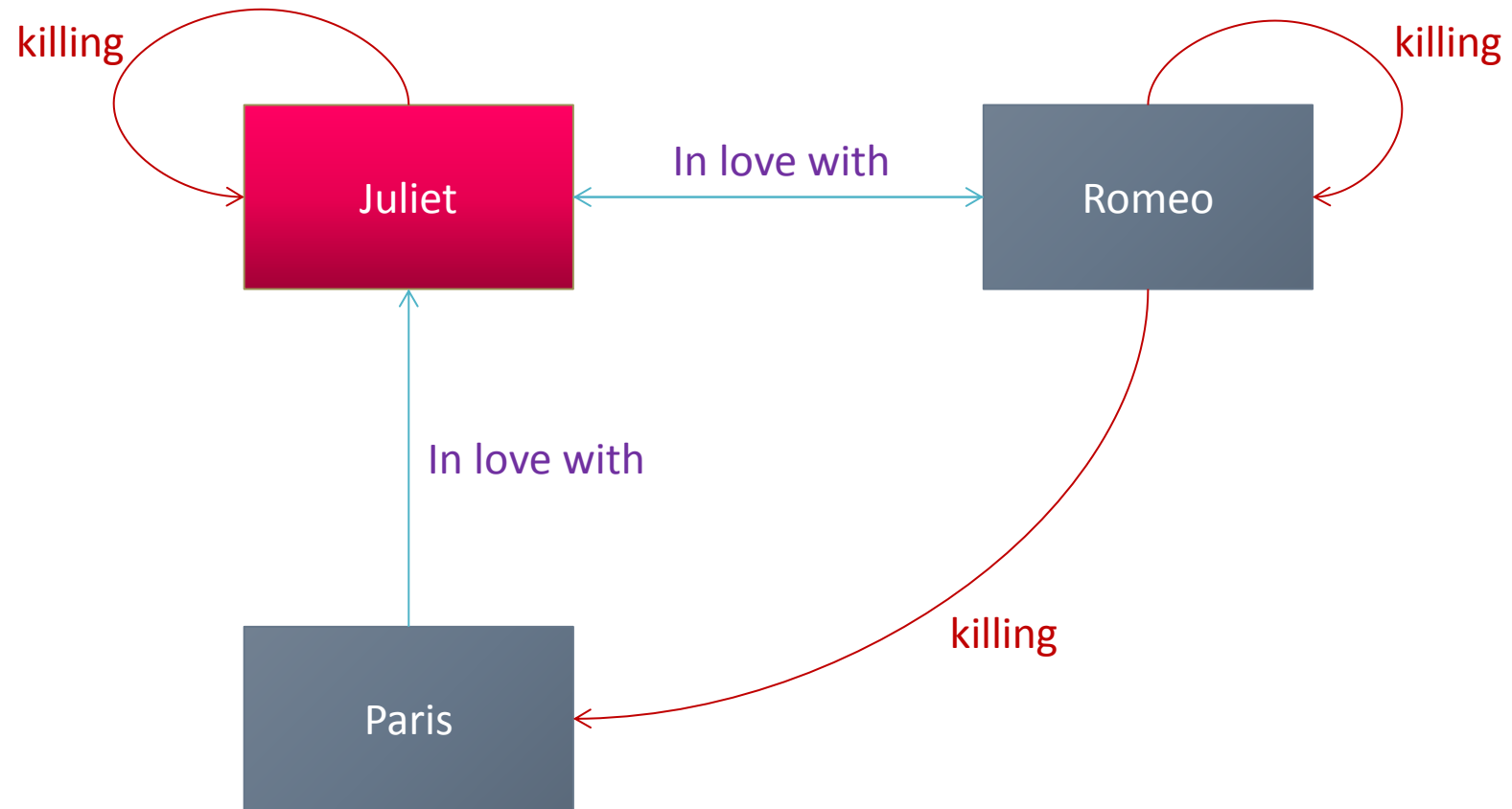


It's possible to classify everything we see in the diagram. But how to classify our objects?

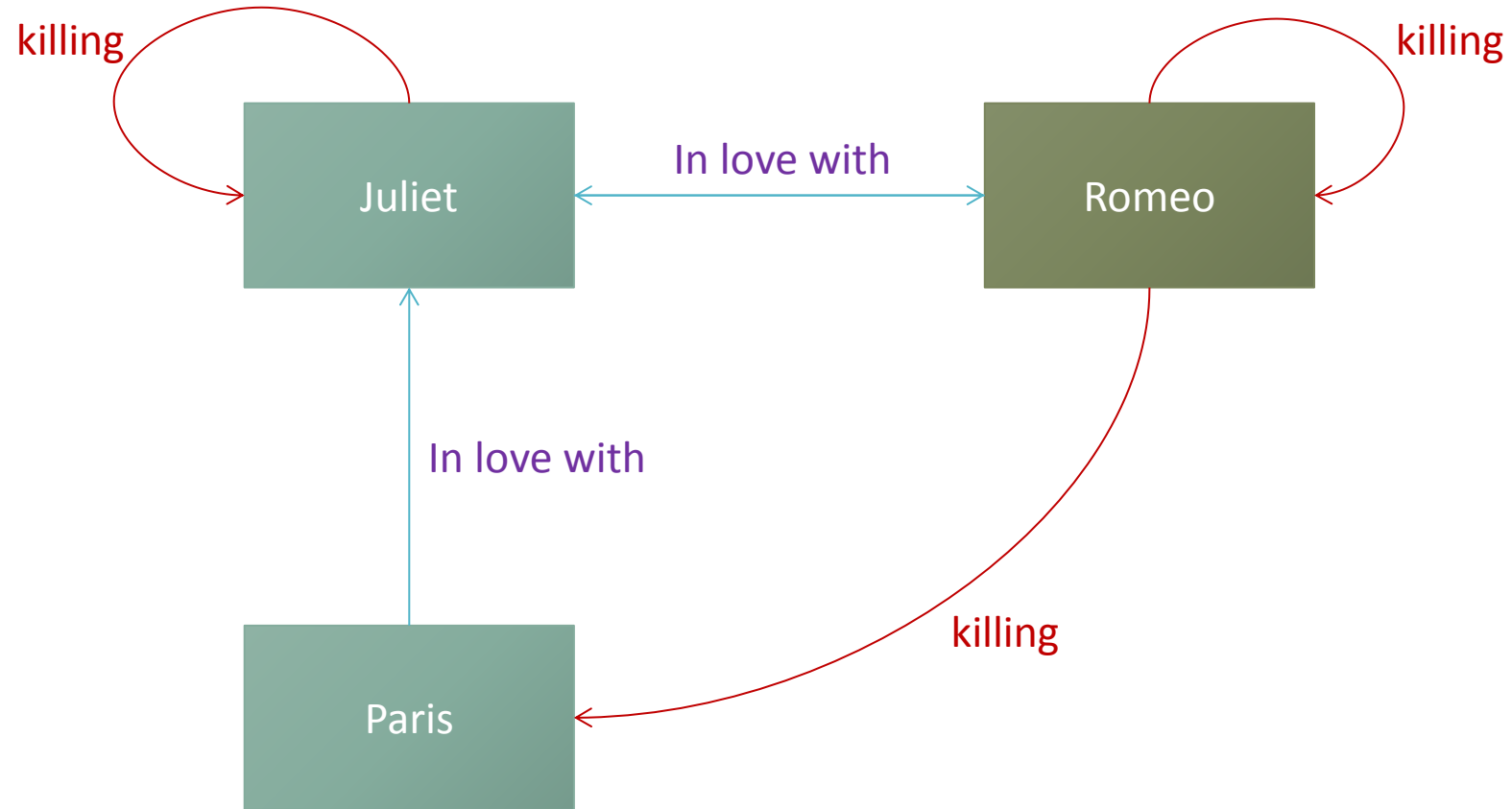




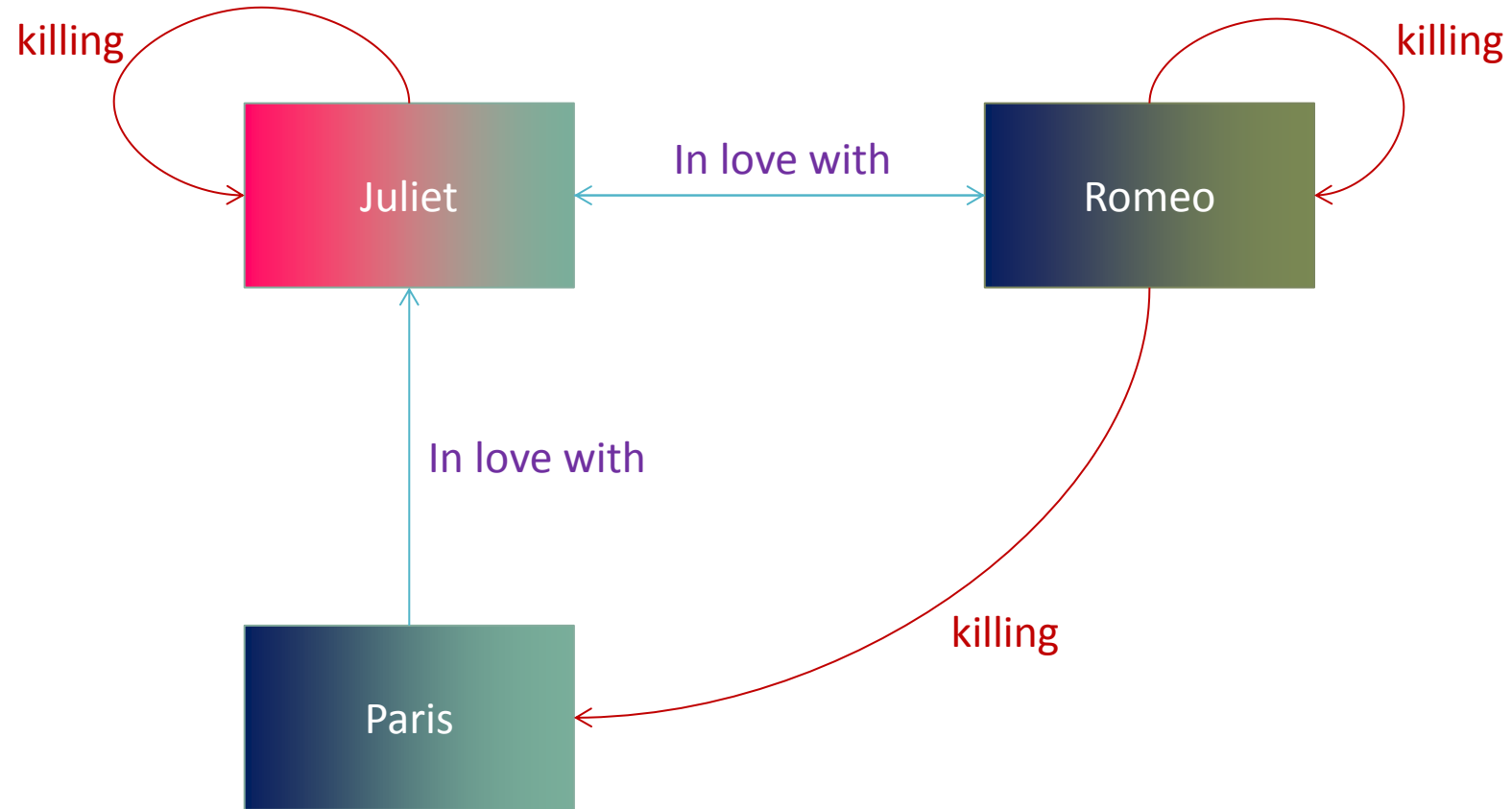
We could certainly divide the objects to men and women:



But won't it be more useful to show, which character belongs to the house of Montague and which one to the house of Capulet?



It probably depends on a context – a mental model we want to build. Sometimes, both categorizations may be useful:



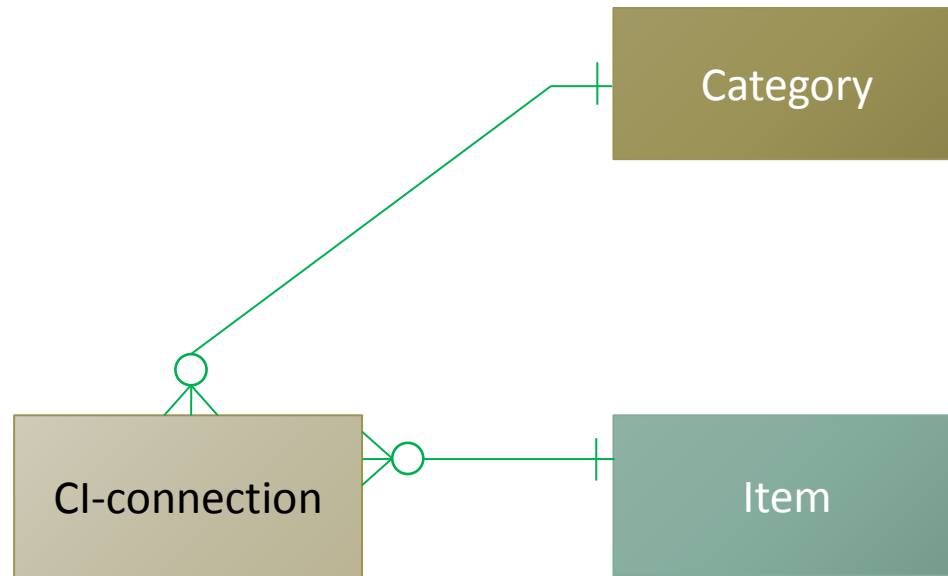
# Classifications are blurred

Good or bad?



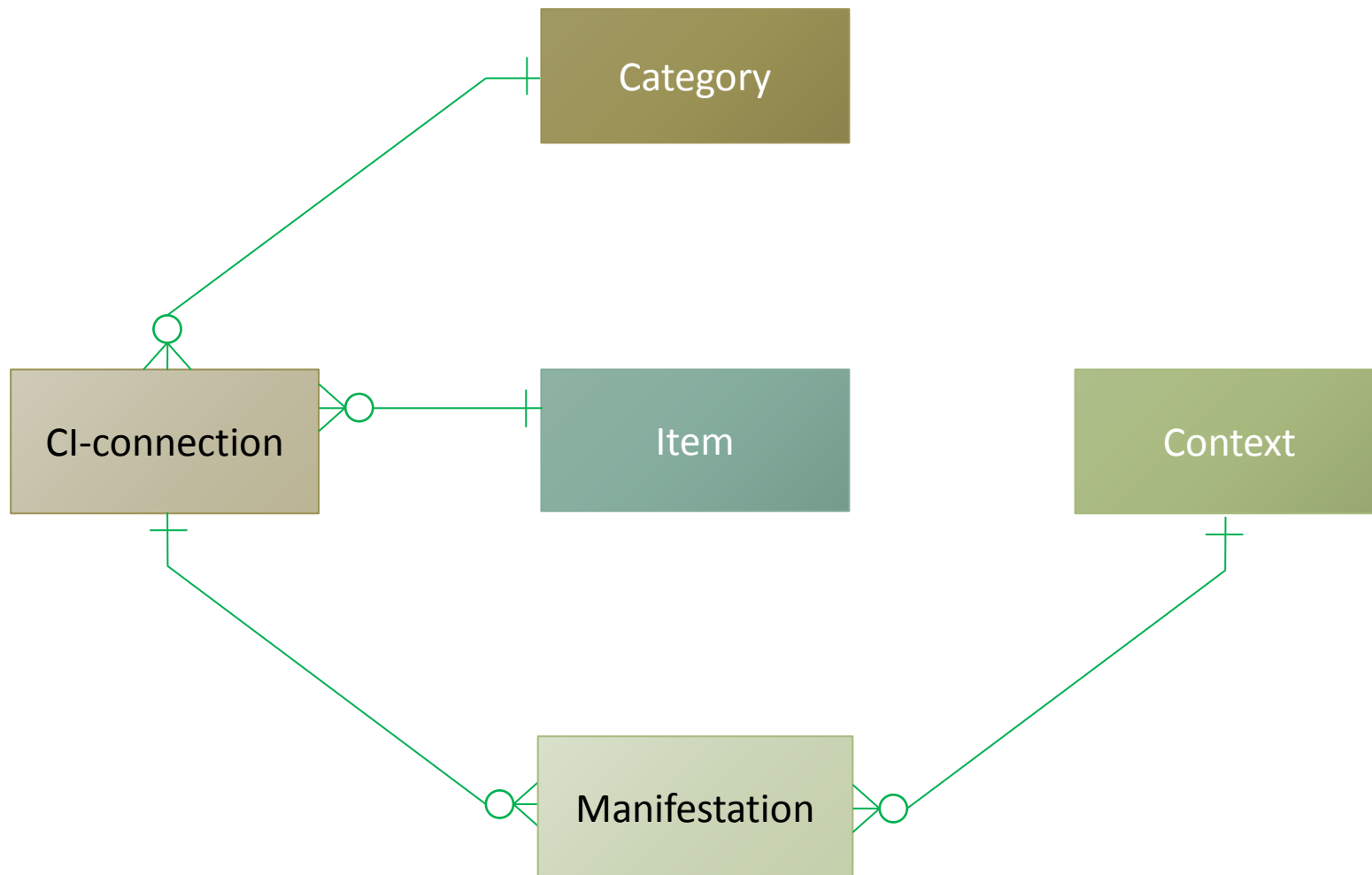
# Certainty

- Items (= objects as such, not their constructs) belongs to a category with a given certainty



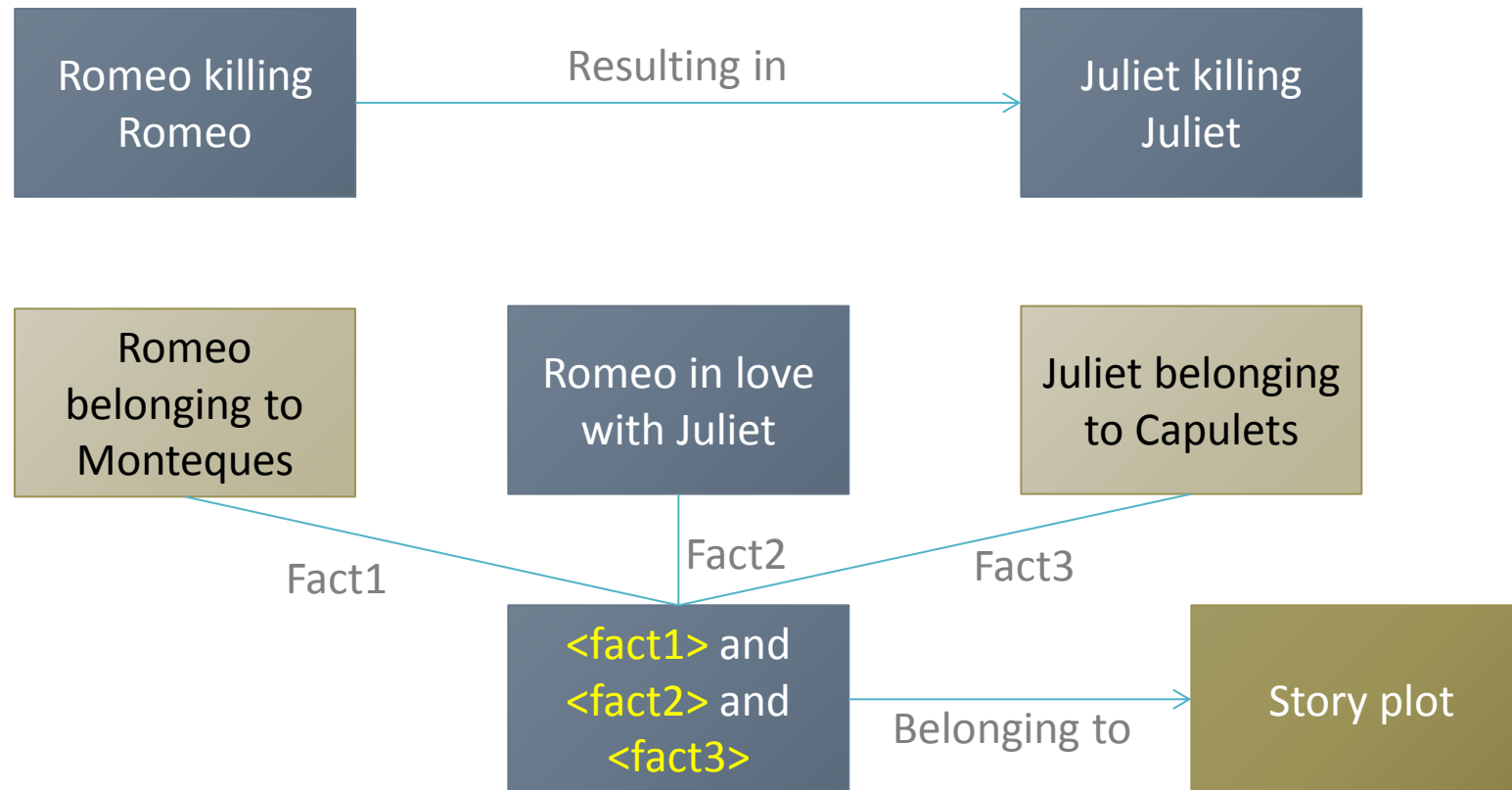
# Attention

The fact is manifested with a certain attention in a given context

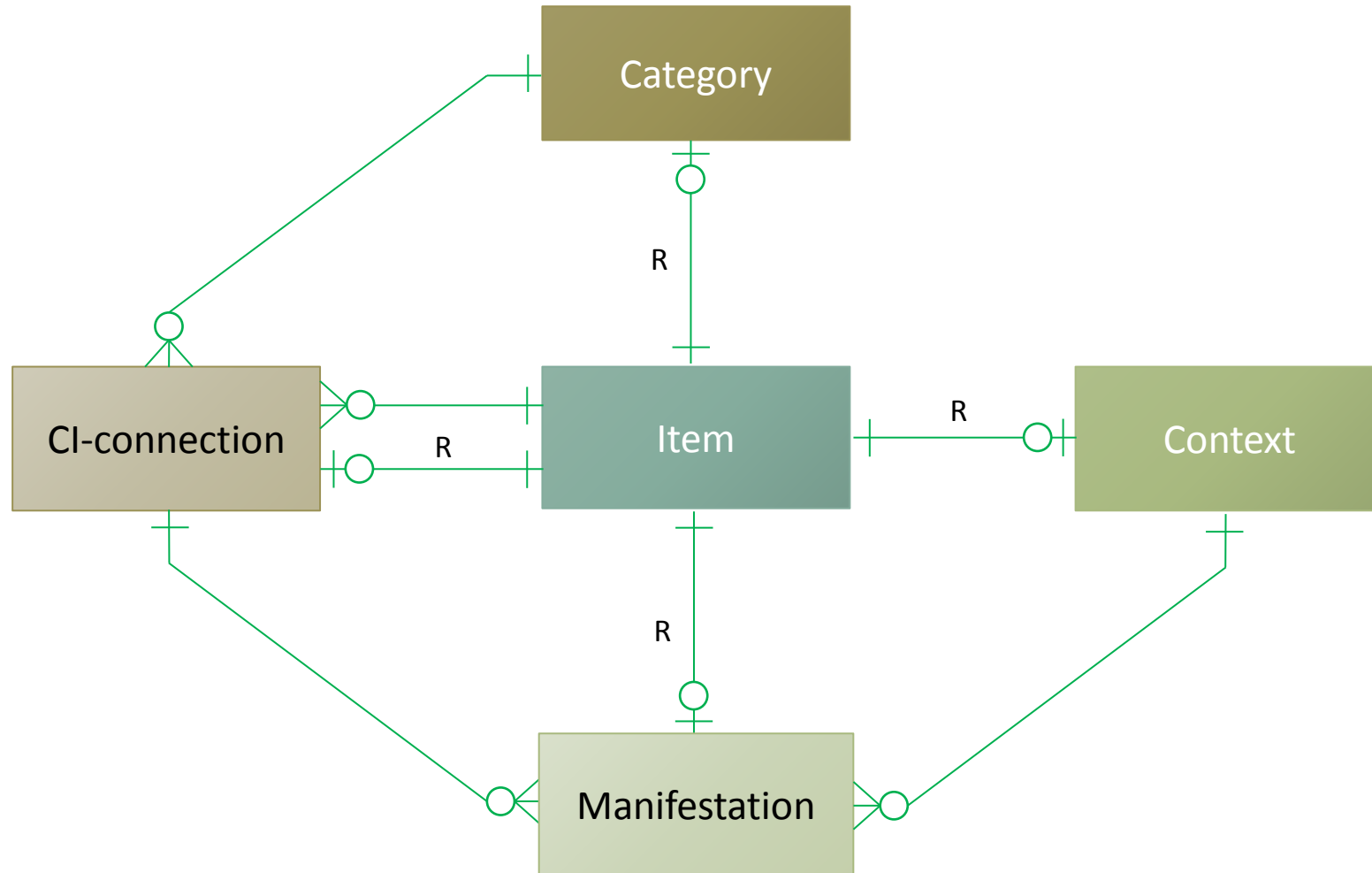


# R-edges

- In some cases, it might be also useful to mention non-trivial concepts – contexts, categories, classifications or manifestations



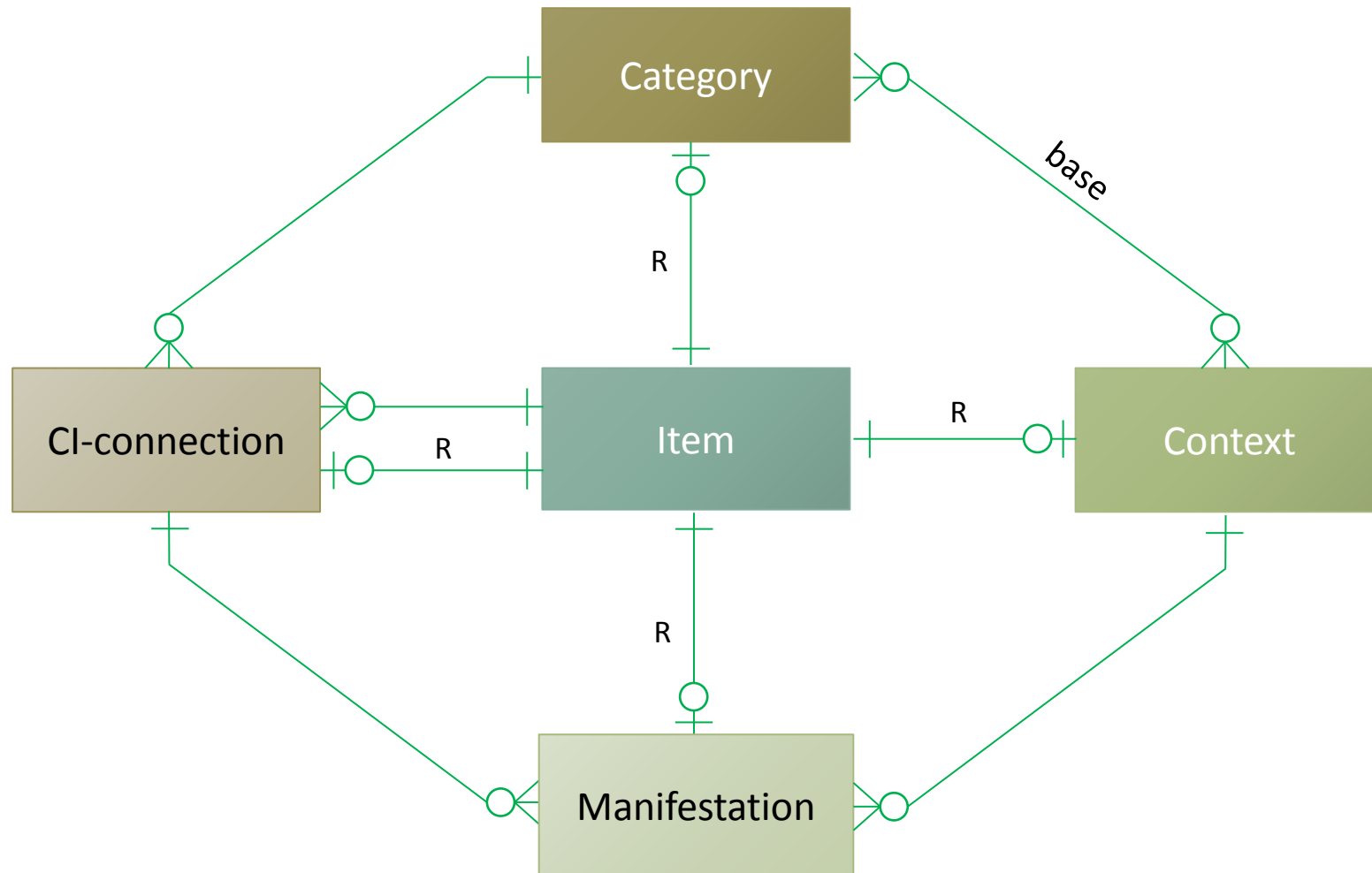
# R-edges



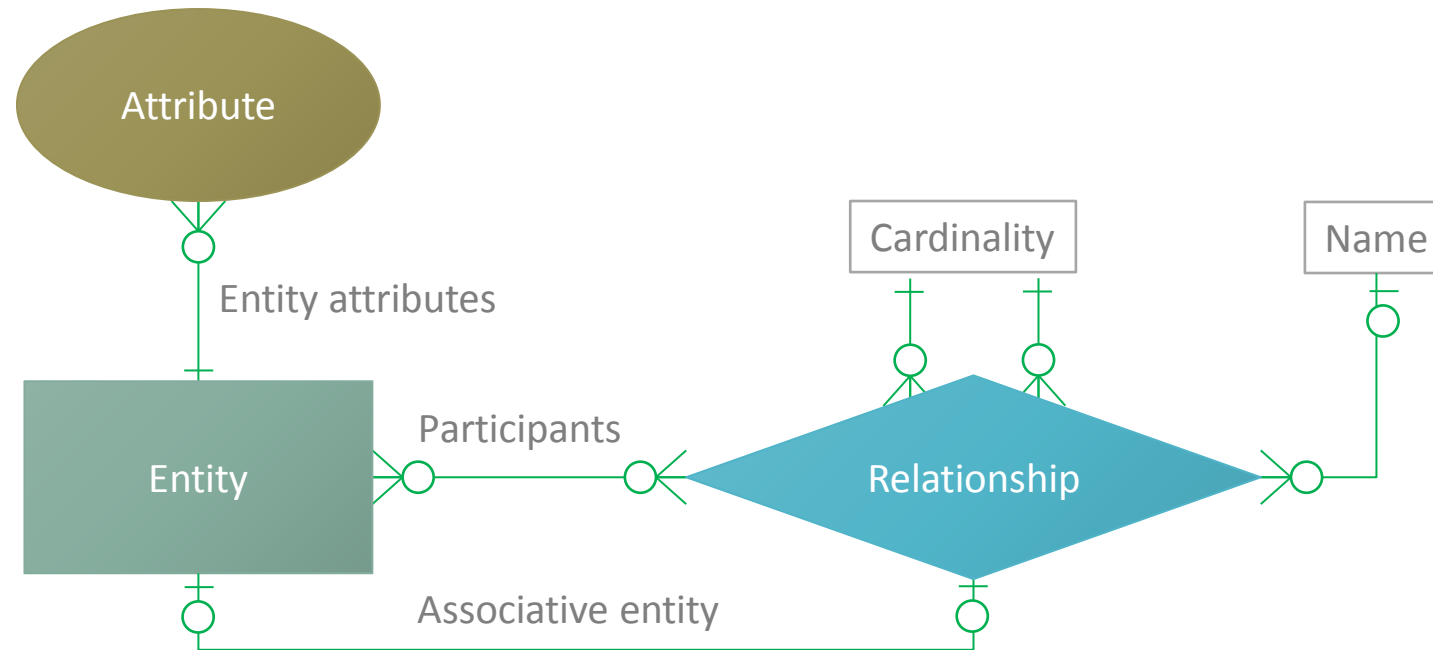


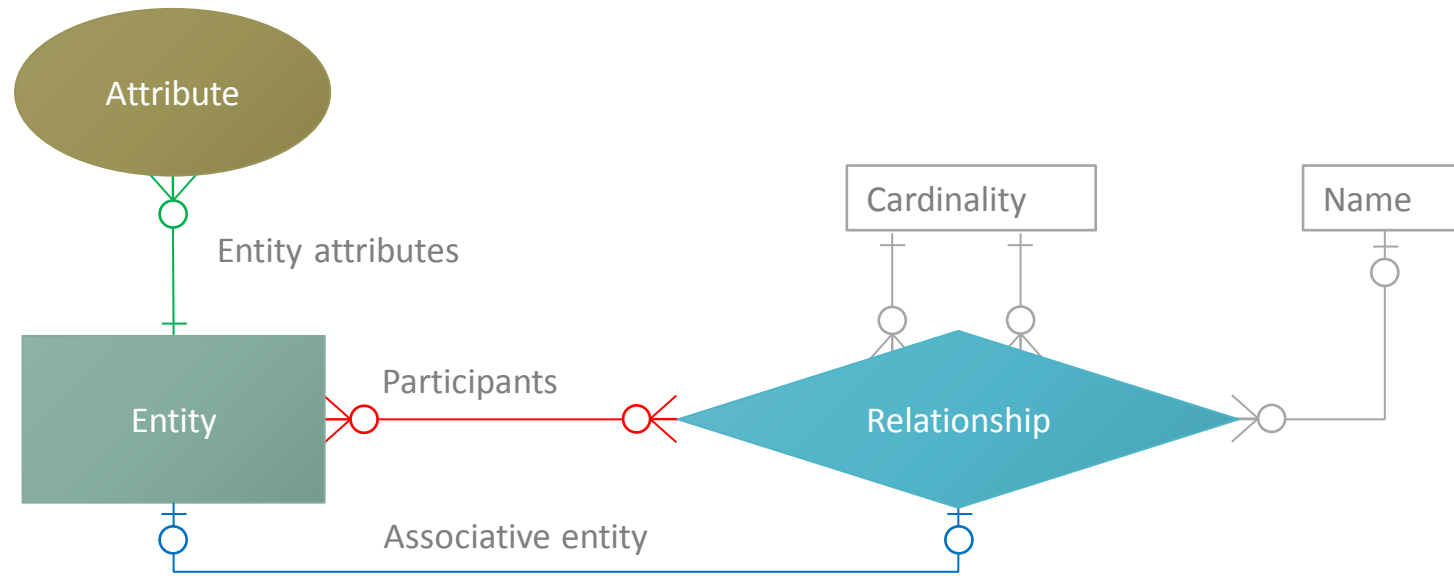
# Context base

Context serves as a model. The base edge defines the set of categories to classify its items to

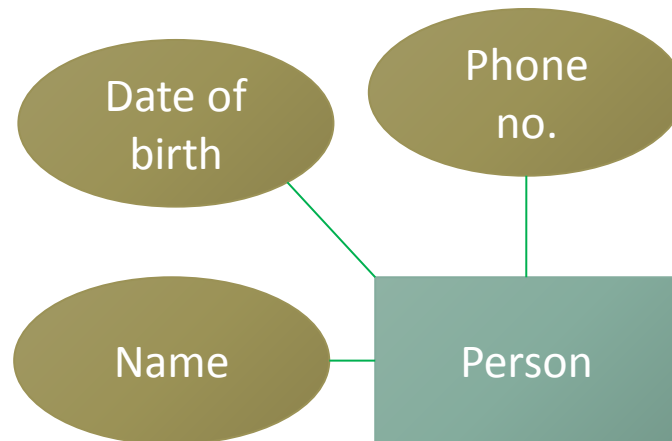


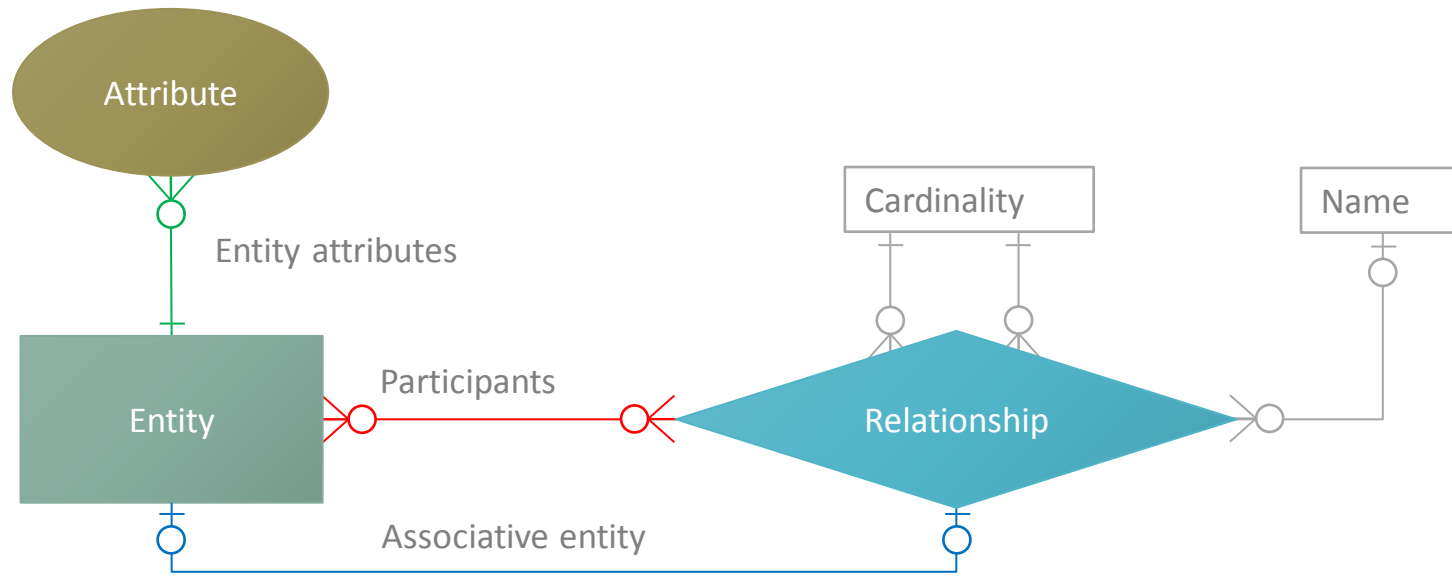
# Example modelling tool: ERD



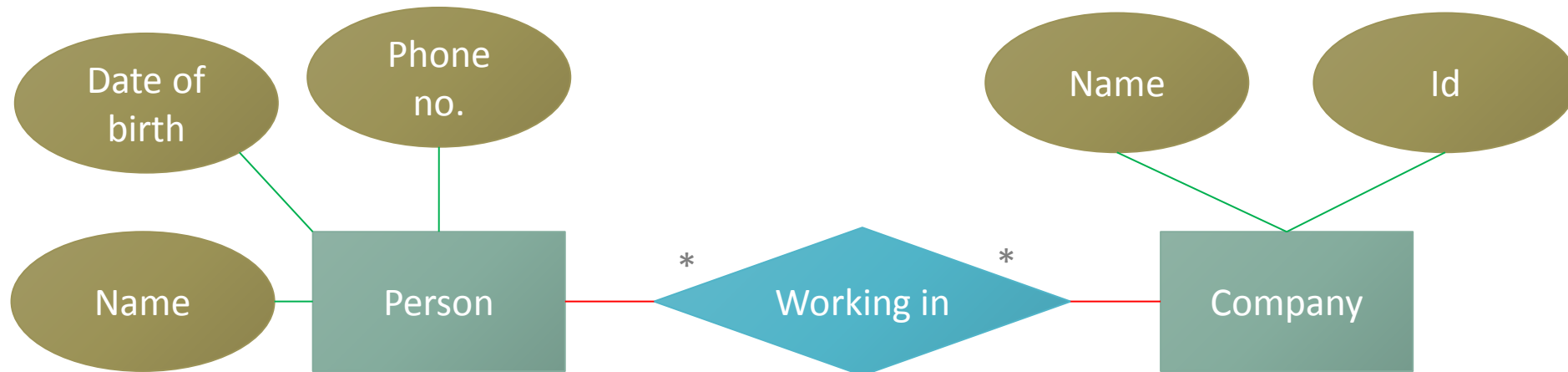


Forms category base for:



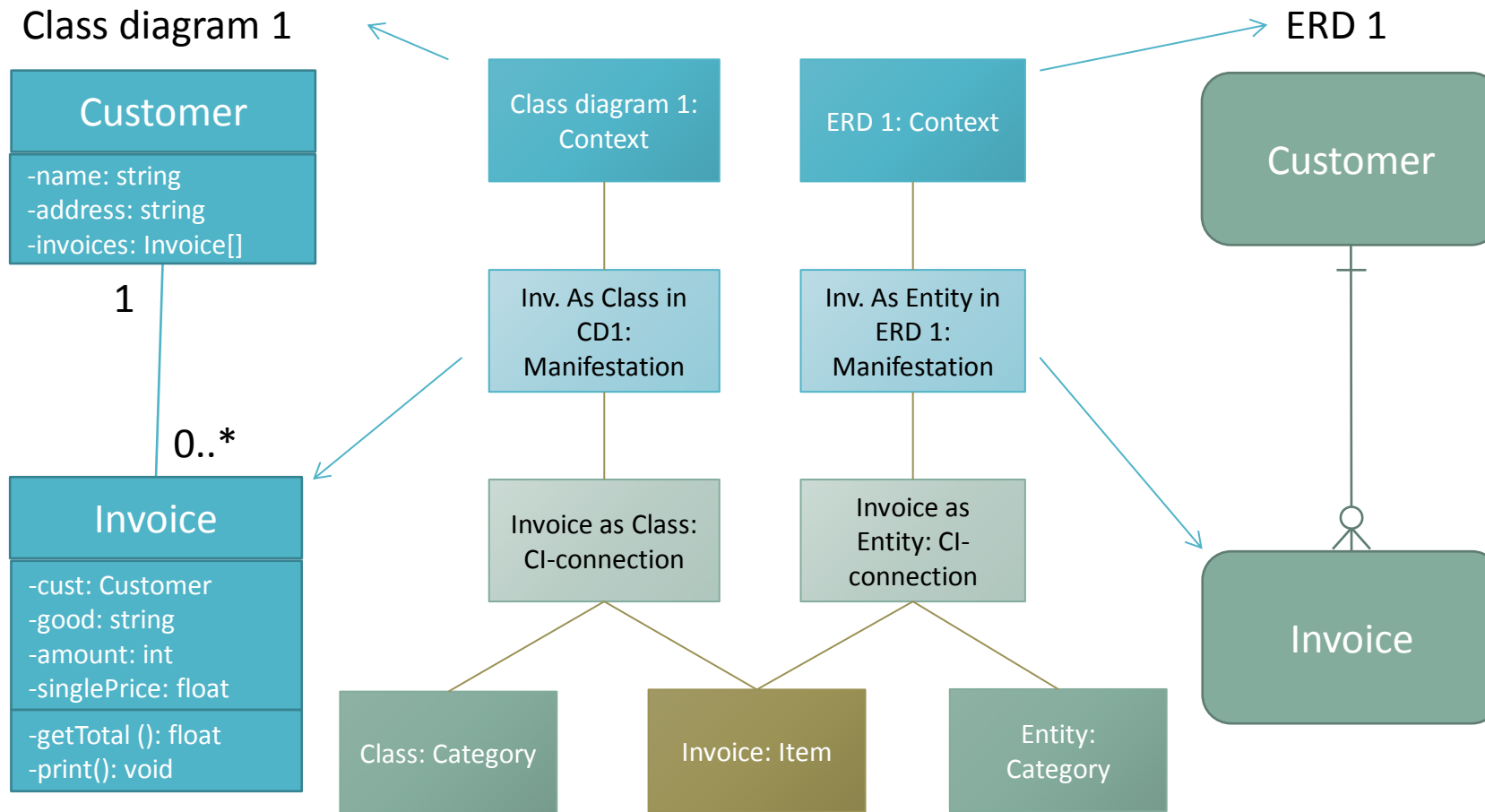


Here is a little more complex example of a model created in modelling tool above.



# Interconnected models

- The same object classified to different categories, manifested in different context



# Diamond-Path Framework

## Overview

