# TOWARDS AN ONTOLOGY OF VALUE ASCRIPTION

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# Motivation

Identify the "right" value of something is both and **easy** and difficult task

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Identify the "right" value of something is both and easy and **difficult** task

The evaluation rarely holds at all times

– *context dependent*

– *Subjective*

*"Value remains perhaps the most ill-defined concept in service marketing and management" (Grönroos, 2013) and "one of the most overused and misused concepts in the social sciences in general" (Sanchez, 2007)*

# Objective

Analyze the nature of value and the ontological assumptions behind **value ascriptions**, i.e., what should exist when one says that an agents ascribes value to something

- We investigate a generic relation between a *value subject* and *a value object*

- We **do not** propose yet another definition or view of value
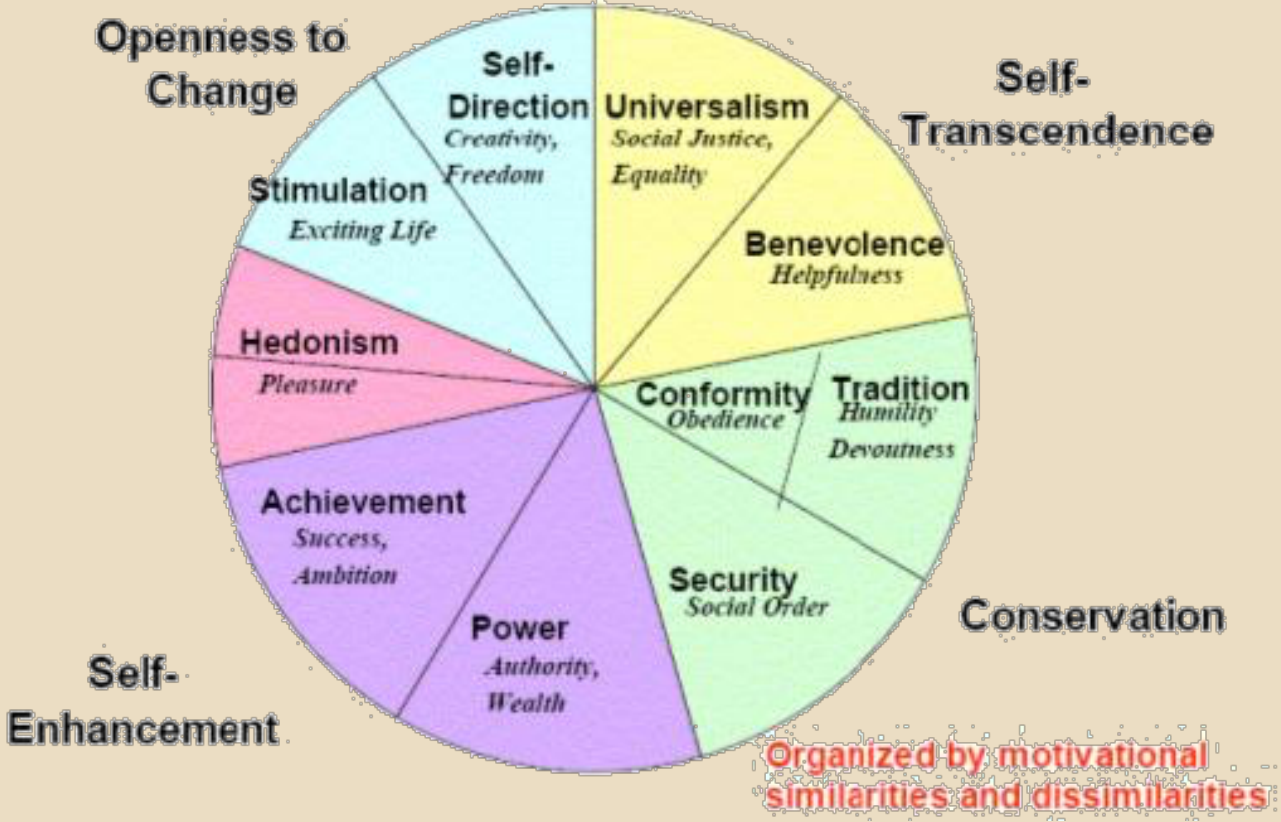
# Axiologies

...lots of literature!

# Axiologies

An axiology identifies a set of values and  relates them to each other through a classification and/or taxonomy
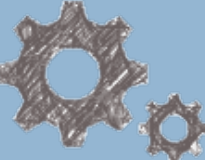
E.g.:

■ Schwartz

■  Sheth et al. – Theory of consumption value

■ Holbrook

# Schwartz

# A theory of consumption value (Sheth)

**Functional value**

instrumental and functional aspects

**Emotional value**

emotional or non-instrumental responses to the consumption of a product

**Social value**

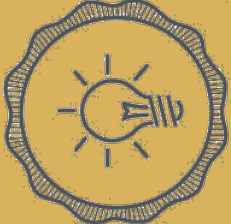how the product is perceived by society or a set of people

**Conditional value**

deriving from specific circumstances

**Epistemic value**

related to curiosity

# Holbrook

**Consumer value as "*an interactive relativistic preference*"** (Holbrook, 1999)

- Interaction between a subject and an object
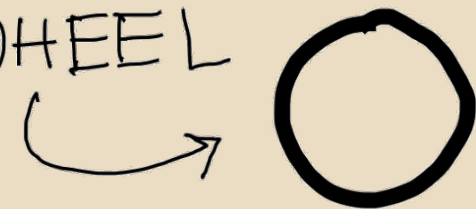- Relativistic, i.e., comparative, personal and situational

# Holbrook's value types

| | Extrinsic | Intrinsic | |
|---|---|---|---|
| **Self- Oriented** | **Utilitarian**<br>*Efficiency (e.g., Convenience)* | **Emotional**<br>*Play (e.g., Fun)* | *Active* |
| | *Excellence (e.g., Quality)* | *Aesthetics (e.g., Beauty)* | *Reactive* |
| **Other- Oriented** | **Social**<br>*Status (e.g., Impression Management)* | **Altruistic**<br>*Ethics (e.g., Justice)* | *Active* |
| | *Esteem (e.g., Possession)* | *Spirituality (e.g., Sacredness)* | *Reactive* |

# Value modeling

- e3value
- REA Ontology
- VDML
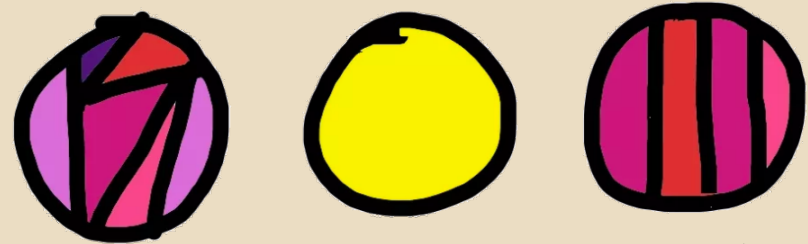
# e3value

Ontology-based methodology for defining **business models** for **business networks**

- identifying and analyzing how value is created, exchanged and consumed within a multi-actor network

- principle of reciprocity
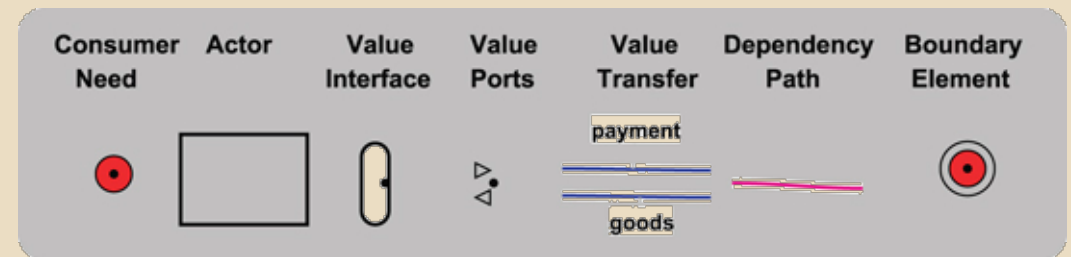
# Resource, event, agent ontology (REA)
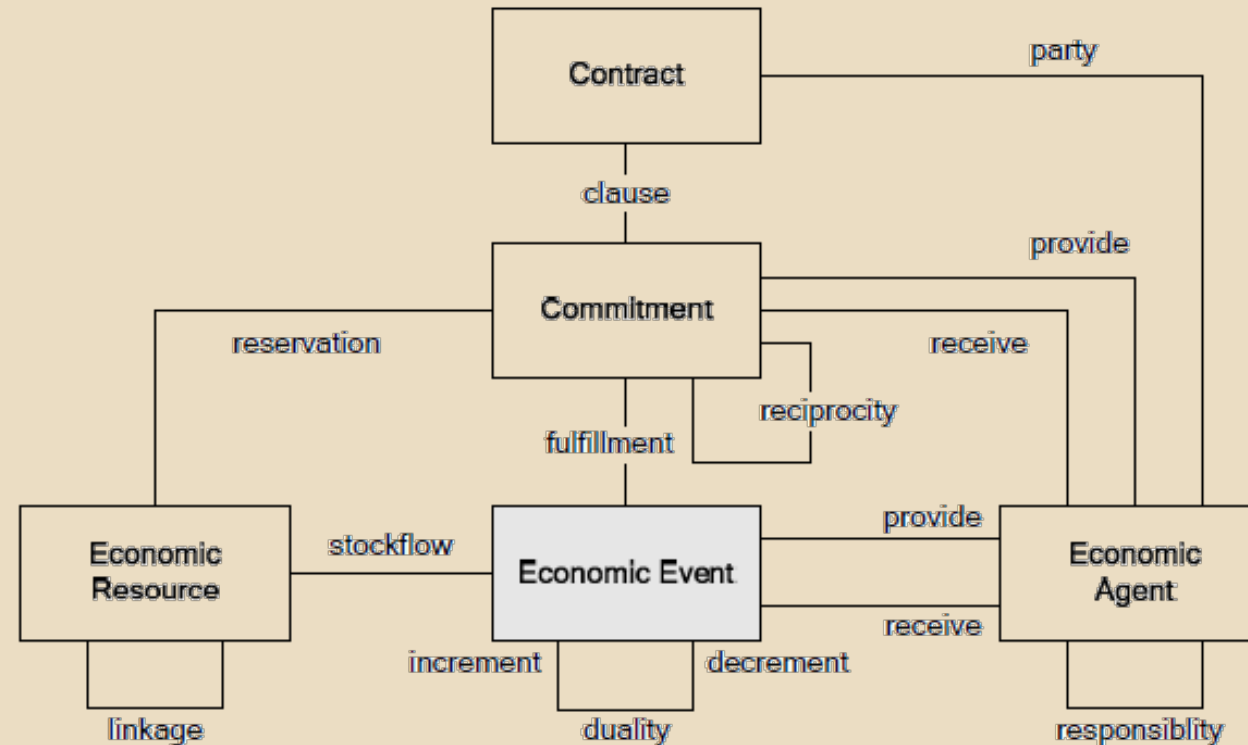
# Value Delivery Modeling Language

- Aims at supporting the "recognition and understanding of problems and opportunities in the context of market demand and enterprise optimization"
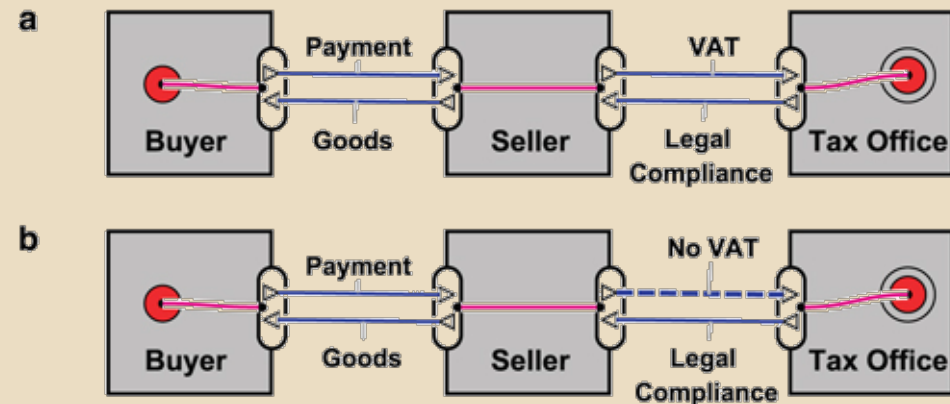
- Accounts for several viewpoints: value networks, value streams. REA, e3value, Business Model Ontology

- Value as a "measurable characteristic of the product or service delivered to a recipient"

# The Phenomenology of Value Ascription

# A notion of (instrumental) value

Value is "*a significance attached to a good resulting from a conceptualization of the good in terms of a desired end. Such a conceptualization can be characterized as an interested evaluation, since the agent perceives a causal connection between the possession of the good and the fulfilment of an end*" (Zuniga, 1995)

# A notion of (perceived) value

It "*implies an interaction between a subject (the customer) and an object (the product);
it is comparative, personal, and situational (specific to the context); and it embodies a
preference judgment*'' (Sanchez, 2007)

# The relational nature of value

Value emerges in a relational context, involving at least an agent besides the value object. It depends on:

- Desired end in the agent's mind and preferences

- Causal connection

- Context (among which, agents' costs)

# The relational nature of value
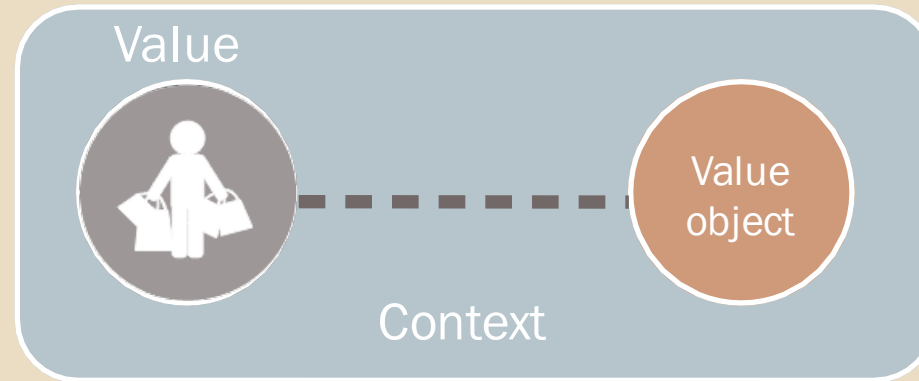


Value is a *a relational quality inhering the value subject and is existentially dependent on the value object.*

# Modeling choices and core issues
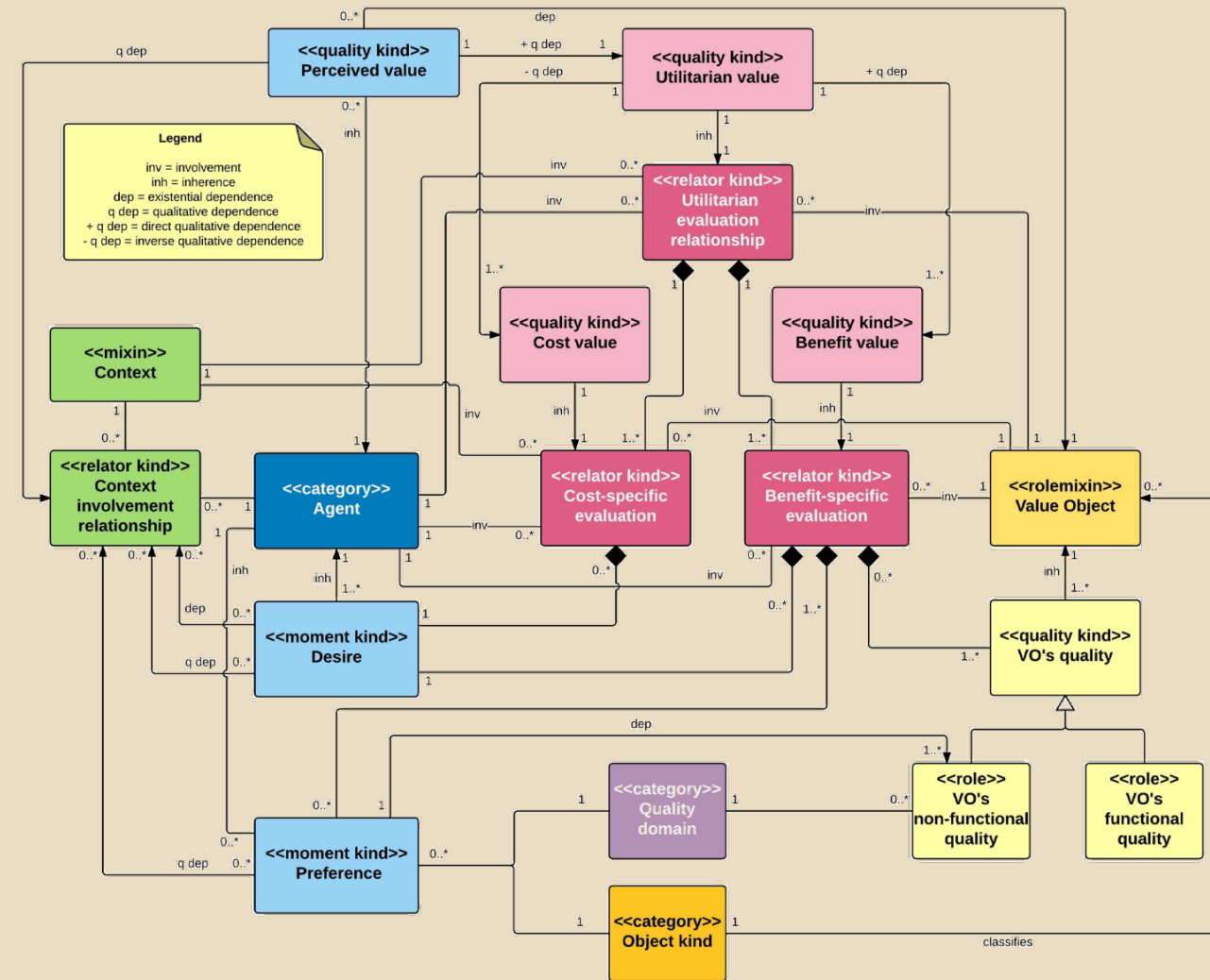
# The relator construct: a reified relationship

- a bundle of qualities, inhering in the related entities

- it accounts for the way the related entities are involved in the relationship

- qualities may vary in time while the relationship (being an endurant) maintains its identity

# Value objects

When value is ascribed to an entity, this entity plays the role of value object

- Potentially, all entities can be value objects:
  - *economic resources (e.g., goods and services)*
  - *economic offerings*
  - *actions*
  - *states of affair*
  - *social relationships*

# Economic offerings

Provider ⟷ Target Community

-Price
-Actions to be taken
-Delivery options
-Warranty
-Complementary commitments

**Goods Offerings**

Transfer of the ownership of some goods
+complementary offerings

**Service offerings**

Commitments carried out by activities

# Actions

Chooser = Beneficiary

Scenario 1

Scenario 2



Chooser differs from Beneficiary

Scenario 3

# Other value objects

## Social relationships

- Things such as...
  - *the value an employer assigns to the business relations of a salesman*
  - *the value that a company assigns to customer loyalty*

## States of affairs

- E.g., the state in which a customer owns a Picasso painting, though the painting will not be "used" and maybe not even looked at every day.
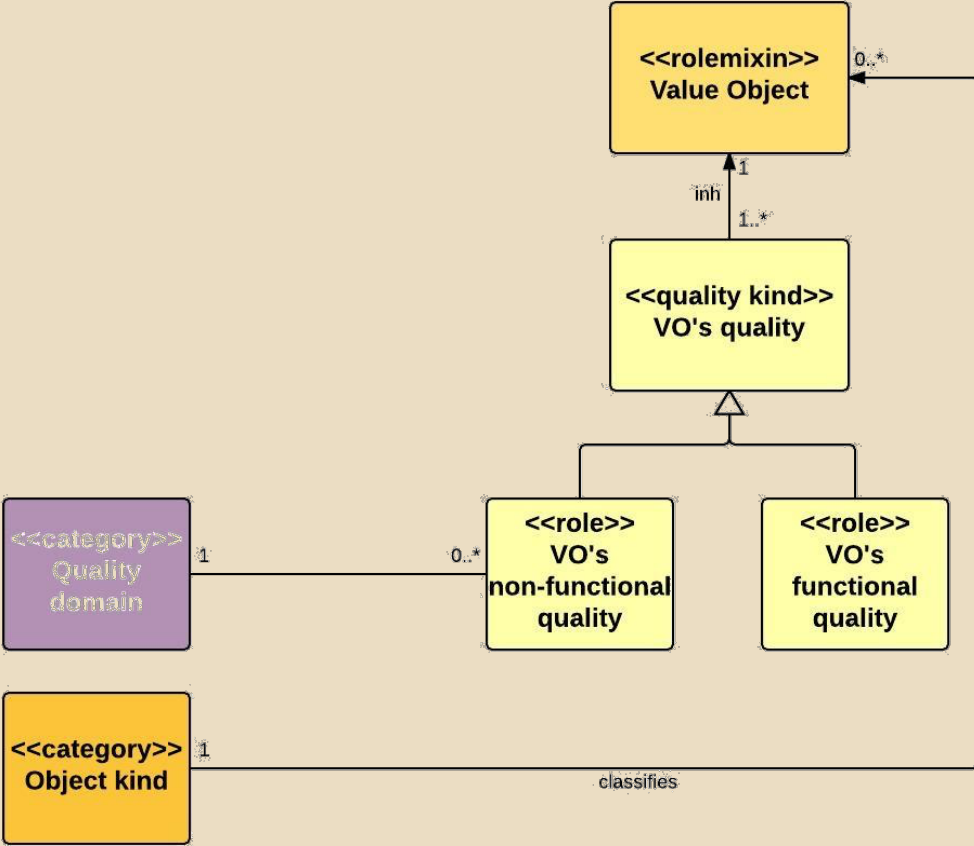
# Functional and non-functional qualities

Functional role

Non-functional role

# Value objects (ontology fragment)

# Agent and social roles

**An agent is a person that can ascribe value to a value object, thereby participating in a value ascription relationship**

- Each agent can play different social roles which define her commitments and responsibilities

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An agent is a person that can ascribe value to a value object, thereby participating in a value ascription relationship

- Each agent can play different social roles which define her commitments and responsibilities

- Social roles are non exclusive, hence each person can play different roles at the same time, though one role may be more important than another one.

- Social roles are played in a context

A value ascription depends on roles and context

# The context

*"Any information that can be used to characterize the situation of an entity. An entity is a person, place, or object that is considered relevant to the interaction between a user and an application, including the user and applications themselves"* (Dey, 2001).

# The context

General context

- Cultural background
- Social rules

Specific context

- Social situation

# The context – its components

- **social rules**
- – *contextual social rules*
- – *cultural background*
- **location** (e.g., desert and water)
- **environmental conditions** (e.g., temperature, time of the day, and season)
- **product availability** (availability and on the market, whether the agent is already in possession of the (kind of) objects to which she is ascribing value)

# Agents and social roles – fragment
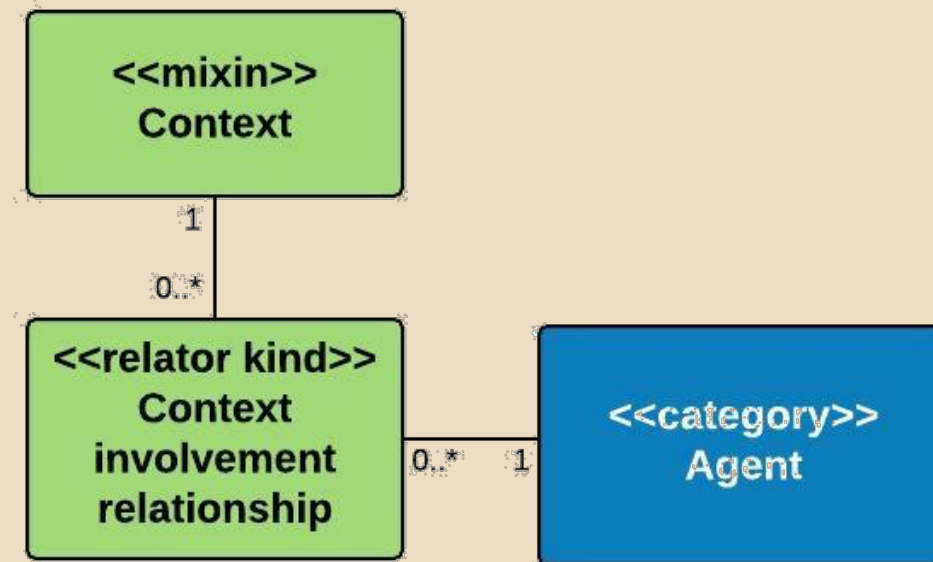
# Desires and preferences

When ascribing value, an agent takes into account desires and preference
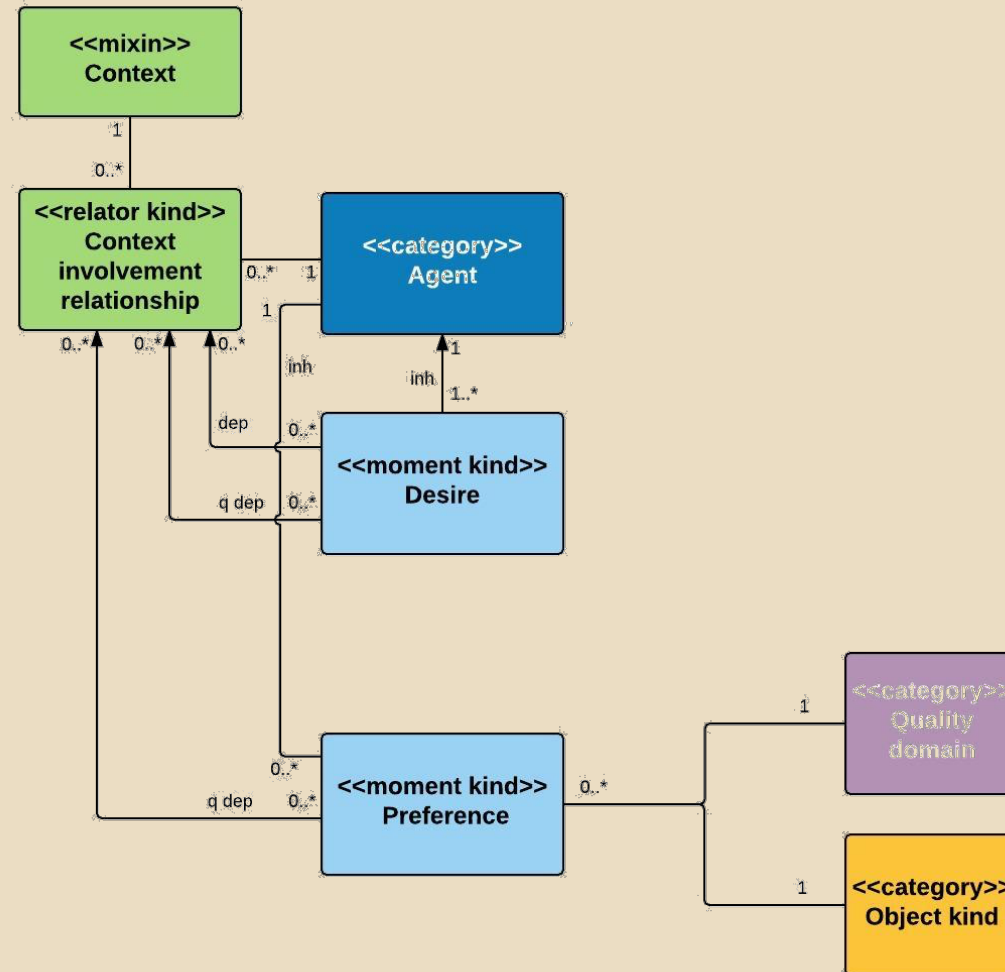
# Desires and Preferences

## Desires

- Content, describing a desired state of affairs

- Strength

## Preferences

- Structure

- Strength

# Desires and preferences - fragment

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# Value and value ascription

**The relation between an an agent and a value object comes from a complex configuration of desires and preferences and functional and non functional qualities**

- ■ Cost-specific evaluation vs. benefit-specific evaluation
- – *Cost value vs Benefit value*

- ■ Utilitarian evaluation, connected to cost and benefit specific evaluations by means of:
- – *Qualitative positive dependeces*
- – *Qualitative negative dependences*

# Value and value ascription - Fragment
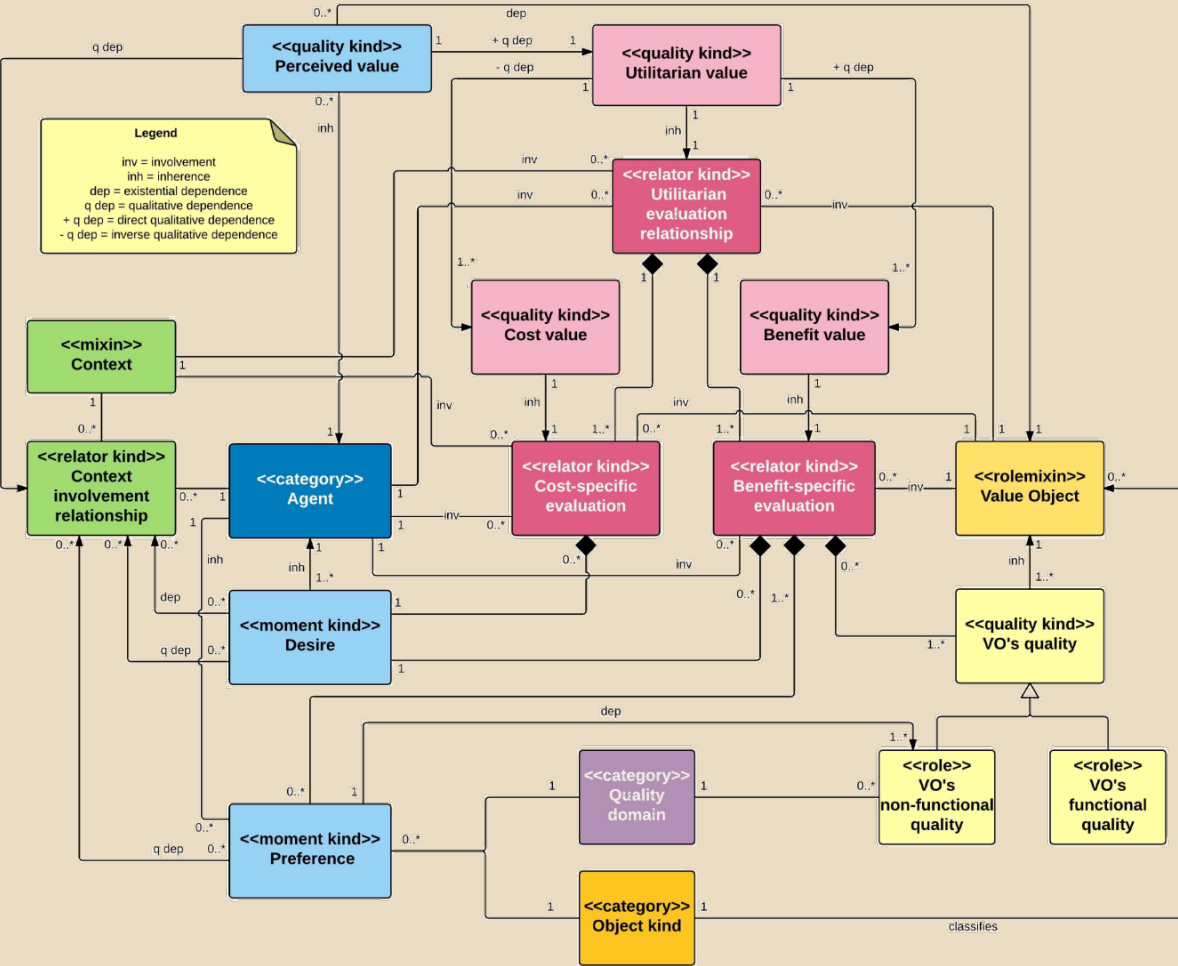
# Open questions

- Which value objects are relevant?

- Does the type of value object affects the value ascription process?

- Does value inhere in the agent, the value object or the relationship?

- Are preferences always comparative?

- ...

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# Thanks!

## Questions?

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