

## Event-appraisal theory

- OCC-model (Ortony, Clore and Collins)
- emotional state
  - ▶ positive/negative
  - ▶ intensity
- agents reaction to events, actions and objects varies according to their emotional state

Interactive Storytelling  
Lecture slides  
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(Theune *et al.*, 2004)

## OCC-model

Directed to agent itself	Directed to other agents
hope – fear	admiration – reproach
joy – distress	hope – fear
pride – shame	love – hate

## Autobiographical memory types

- type 0: agent is always telling the same story
- type I: agent has a variety of stories but not within the conversational context
- type II: agent selects a story that fits the context best

## Autobiographical memory types (cont'd)

- type III: agent tells and listens stories (i.e. interprets the meaning and has a response)
- type IV: a living, autonomous agent (i.e. personality)

(Ibanez *et al.*, 2003)

## Memory in VIBES

- stores information (i.e. percept objects) acquired about the world
  - ▶ actor's representation of the world
  - ▶ knowledge the actor has acquired
- records consecutive internal states of the actor (e.g. wants, emotions)

(Sanchez *et al.*, 2004)

## Memory in SAGA

- narrative memory stores a temporal sequence of episodes
  - ▶ cause-and-effect links between episodes
- episode comprises
  - ▶ crisis
  - ▶ climax
  - ▶ resolution

(Machado *et al.*, 2004)

## Episodic memory

- personal history of an entity
  - places and moments
  - subjective feelings and goals
- requires: persistent world and multiple actors
- autobiographic memory: longer, lifetime scope

(Brom *et al.*, 2007)

## Requirements for a full episodic memory

1. storing complex hierarchical tasks
2. storing and reconstructing personal situations
  - what, with which and why?
  - who saw and what did he do?

## Full episodic memory (cont'd)

3. all available information is not stored
  - perceivability
  - importance
  - attractiveness (or salience)
4. large time scale: the importance of forgetting (details reduced, events merged)
5. coherence: trust in the stored data

(Brom *et al.*, 2007)

## Problem of believability: The uncanny valley

- Masahiro Mori (1970):
  - the more human-like the robot, the more positive the emotional response
  - at some point the response becomes quickly a strong repulsion
  - as the appearance and motion improve, emotional response becomes positive again
- the uncanny valley: the area of repulsion between "barely human" and "fully human"

## The uncanny valley: Movement and appearance

