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# The Frame “Conception and Birth” in the Film *Gattaca*:

Connecting Frame Semantics with  
Multimodal Discourse Analysis

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# Overview

1. Frames in discourse
2. Filmic discourse and multimodal analysis
3. Example from the film *Gattaca* (1997)
4. Future research directions

# What are semantic frames?

- Background knowledge in texts
- Two traditions: Artificial intelligence research and Frame semantics (Minsky 1975, Schank/Abelson 1977).
- **Linguistics**: development of case grammar (Charles J. Fillmore; Ziem 2012)
- Verb arguments have semantic roles (e.g. *Agent, Object, Goal, Location, etc.*)
- **Computer linguistics**: Knowledge representation: ontologies; FrameNet; Semantic web

# Semantic frames in film

- All **semiotic artefacts** are structured by frames
- Frames can be used to describe **background knowledge** in a general format
- **Intermodal relations** can be established through frames

# Social / cultural change and textual depictions

- Frames describe the **conceptualisation of a domain** of a society
- Changing understanding of cultural domains can be understood as **frame change**
- Frame theory can be applied in **film analysis**: e.g. by comparing films from different times or cultures
- In Gattaca, **changing conceptualisations** are part of the subject matter of the film

# Example

*Gattaca* (1997, dir.: Andrew Niccols)

9:00 – 10:35

- Describes a future “not too distant” from 1997 in which eugenics, and discrimination based on gene tests, are widespread
- Refers to highly charged discourses of the time

# Frame *Conception & Birth*

(1997)<sub>real</sub>

- *Actors*: mother, father, child, doctor, ...
- *Events*: love-making, conception, pregnancy, birth, health checks for the baby, ...
- *Script*: <love-making ⇒ conception ⇒ pregnancy ⇒ birth ⇒ health checks>
- *Locations*: private home, hospital, ...
- *Artefacts*: hospital bed, ...
- *Terms & idioms*: “intelligence quotient”, “A child conceived in love has a greater chance of happiness”, ...

# Frame *Conception & Birth*

(future that is “not too distant” from 1997)*fictional*

- *Actors*: mother, father, child, geneticist, doctor, ...
- *Events*: in-vitro fertilisation, testing of embryos, selection of suitable embryo (in consultation with the parents), conception, pregnancy, birth, genetic test, ...
- *Locations*: private home, medical practice, hospital, ...
- *Artefacts*: hospital bed, automated blood tests, genetic test set, ...
- *Terms & idioms*: “God’s child”, “faith birth”, “genetic quotient”, “borrowed ladder”, “genoism”, ...
- *Social norms*: Discrimination is forbidden by law, but common (“No one takes the law seriously”)



# Frame networks

- Frames are connected: e.g. the frame *Conception & Birth* would be linked through the frame element *Caesarean section* with the frame *Operation* (hyperonym)
- Links are possible via elements (e.g. *actors, events ...*)
- *Connected frames* (1997): connected frames are *Love, Emotion, Family, Religion, Life, ...*
- *Connected frames* (a future not too distant from 1997):
  - *Genetic Engineering* (contains methods of *Birth & Conception*)
  - *Science* (contains the social domain structuring the frame)
  - *Eugenics* (describing cultural practices and goals of the frame)

# Framing in film

- Films (and other texts) make use of frames to draw on existing cultural understanding
- Thorough world construction includes **fictional conceptualisation, terminology, social norms & practices**
- **Frame templates** have to be expanded accordingly
- Frame change → changes in world knowledge
- Use of frames to describe fictional worlds is **genre specific**: frequently used in science fiction & fantasy

# Intermodality

- Multimodal texts use various **semiotic** and/or **perceptual** modes to create meaning  
(Bateman 2011, Wildfeuer 2012, Fricke 2013)
- **Semiotic** modes: language (text or speech), images, sound, ...
- **Perceptual** modes (= sensory channels): visual, auditory, haptic, ...
- Textual inferences are often based on information given in various modes
- **Intermodality**: additional textual properties that are caused by relations between modes

# Intermodality in *Gattaca*

- **Music & images** of the conception scene refer to the frame *Conception & Birth (1997)*<sub>real</sub>
- **Verbal language [narrative commentary]** refers to the frame *Conception & Birth (not-too-distant future)*<sub>real</sub>
- **Intermodal irony** or **Intermodal commentary**
  - ⇒ additional textual properties!
- *Gattaca*, 10:35 – 10:58: images give examples for what is more generally described in the verbal commentary.
  - ⇒ **Exemplification**

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