Interactions between Semiotic Modes in Multimodal Texts

Martin Siefkes, University of Bremen
Overview

1. Why investigate intermodal interactions?
2. Theoretical approaches
3. Layers of texts
4. Intermodal interaction types (IITs)
5. Some examples
What are intermodal relations?

• In multimodal texts, different semiotic modes are used together
• Modes can be considered in terms of their relations to each other
• Semiotic modes can be differentiated into various layers (expression, content, intended effects, style)
• All these layers can interact with layers of other modes

> Not all of this is always relevant!
Intermodality

- Intermodal relations are a very complex problem in multimodality research.
- In a multimodal text, each mode contributes to overall meaning, form, and style!
- Textual inferences are often based on information given in various modes (cf. Wildfeuer 2012).
- There are additional textual properties that are caused by relations between modes.
Intermodality

• **Intermodal relation**: relations found between modes
  
  > IIT: an “intermodal interaction type” definable by logical properties

• **Intermodal interaction**: changes in one mode caused by the presence of another mode
  
  > a definable change in expression, meaning, and/or style
Example: Intermodal deixis

Example from *Gattaca* (1997, A. Niccol), 00:39:40

[Jerome:] “I’m gonna finish this.”

[Vincent:] “Titan is exactly like this. All the time it’s got a cloud around it.”

*Intermodal deixis (a.l, v.i)*

a.l = perceptual mode: auditory semiotic mode: language

v.i = perceptual mode: visual semiotic mode: image
Intermodality

• Intermodality or intersemiosis

• Modes: sign systems
  ⇒ semiotics, linguistics, image studies, ...

• and perceptual modes
  ⇒ psychology, cognitive science, neuroscience
Basic idea

- Set of *intermodal interaction types* (IITs)
- Descriptive categories (e.g. system networks) are usually area-specific
- *Often-neglected part* of multimodal meaning
- Limited by demand for generality
5 modes and their interactions in a film

- Moving images [v.mi]
- Written language [v.l]
- Spoken language [a.l]
- Sounds [a.s]
- Music [a.m]

Interactions:
- (v.mi, a.l)
- (v.mi, v.l)
- (a.l, v.l)
- (v.mi, a.s)
- (v.mi, a.m)
- (a.s, v.l)
- (a.s, a.m)
- (a.s, a.m)
- (l.a, a.m)
Intermodality and Multimodality

- For all these interactions, we can distinguish between *perceptual mode* (auditory, visual, ...) and *semiotic mode* (language, images, ...)

- Furthermore: modes such as *images* comprise submodes such as *color, lighting, clothing, gesture* and *mimics* of characters

- Intermodality considers aspects which cannot be found by looking at the modes separately

- Thus, monomodal and multimodal analysis complement each other!
Three *layers* of text / discourse

- Layer of **Form / Expression**
- Layer of **Content / Semantics**
- Layer of **Style**
Three layers of text / discourse

Textual layer

Form / Expression
- Segmentability
- Spatial relations
- Time relations
- Combination rules

Content / Semantics
- Discourse referents
- Propositions
- Inferences

Style
- Choice-related aspects
- Patterns not caused by function or content
Interactions and other structure

Text with modalities
$M_1, \ldots, M_n$

Monomodal structure for $M_1, \ldots, M_n$

All interactions $I(M_i, \ldots, M_j)$
for $i, j \in n; i \neq j$

Holistic structure (?)
Layers of two interacting modes

$M_1$: moving images $[v.mi]$

$M_1$: spoken language $[a.l]$

Expression: $\text{Exp} (M_1)$

Content: $\text{Con} (M_1)$

Style: $\text{Sty} (M_1)$

Expression: $\text{Exp} (M_2)$

Content: $\text{Con} (M_2)$

Style: $\text{Sty} (M_2)$

$I(\text{Exp} (v.mi), \text{Exp} (a.l))$

$I(\text{Exp} (v.mi), \text{Con} (a.l))$

$I(\text{Con} (v.mi), \text{Con} (a.l))$

$I(\text{Sty} (v.mi), \text{Sty} (a.l))$
Expression / form relations

- **Overlap**
  a spatial and/or temporal overlap between expressions (= form; sign carriers) of two modes

- **Occlusion**
  an overlap where the expression of one mode becomes partially occluded

Formal notation example:

\[
\text{Occlusion} (\pi_i, \text{Exp}(M_1), \text{Exp}(M_2))
\]
Expression / form relations

- **Integration**: the expressions of $M_1$ and $M_2$ are integrated, i.e. cannot be separated.

- **Parallelism**: a parallel organization of material in two modes: e.g. one utterance [v.l] for one panel [v.i].
Content relations

- Similarity
- Contrast
- Contradiction
- Background

Formal notation example:

$\text{Similarity} (\pi_i, \text{Con}(M_1), \text{Con}(M_2))$
Intermodal predication

Example from Spirited Away (2001, dir. Hayao Miyazaki), 00:56:10

“You got a really good one. [...] This one has dried worm salts. With water this murky, ...”

Intermodal predication (a.l [v.l], v.i)

a.l = perceptual mode: auditory semiotic mode: language

v.i = perceptual mode: visual semiotic mode: image
Contradiction

Intermodal contradiction (v.l, v.i)

v.i = perceptual mode: visual
    semiotic mode: image

v.l = perceptual mode: visual
    semiotic mode: language

[Subtitle:] The protest march was non-violently dissolved by the police.
Typification

Reference modification: Typification \((a.l, v.i)\)

\(v.i = \) perceptual mode: visual

semiotic mode: image

\(a.l = \) perceptual mode: auditory

semiotic mode: language

[Narrator’s voice:]
“The giraffe is the largest land animal.”
Further content relations

- Intermodal deixis
- Intermodal predication
- Exemplification
- Disambiguation
- [Reference modification:] Typification
- [Reference modification:] Tokenization
Stylistic relations

• Similarity
• Varying complexity
• Varying time of production
• Varying (implied) producer
• Parody

Formal notation example:

Varying complexity \((\pi_i, \text{Sty}(M_1), \text{Sty}(M_2))\)
Important points

1. Intermodal analysis poses highly complex problems
2. Important for practical results
3. Three distinctions:
   (i) Modes present in a text images, language, music, ...
   (ii) Levels of text / discourse form / expression, content, style, ...
   (iii) Types of interactions intermodal deixis, predication, typification, ...
4. Methods are available in semiotics & multimodality research!
Research questions

- Role of interactions in multimodal texts
- Which list of interaction types (IITs) should we assume?
- How to represent interaction types?
  ⇒ inclusion in a discourse representation model
- When can interaction types be defined in a logical discourse model?
  ⇒ conditions for their presence
- How can their presence be empirically determined?
  ⇒ annotation in corpus studies