

Basic techniques and problems in multimodal analysis

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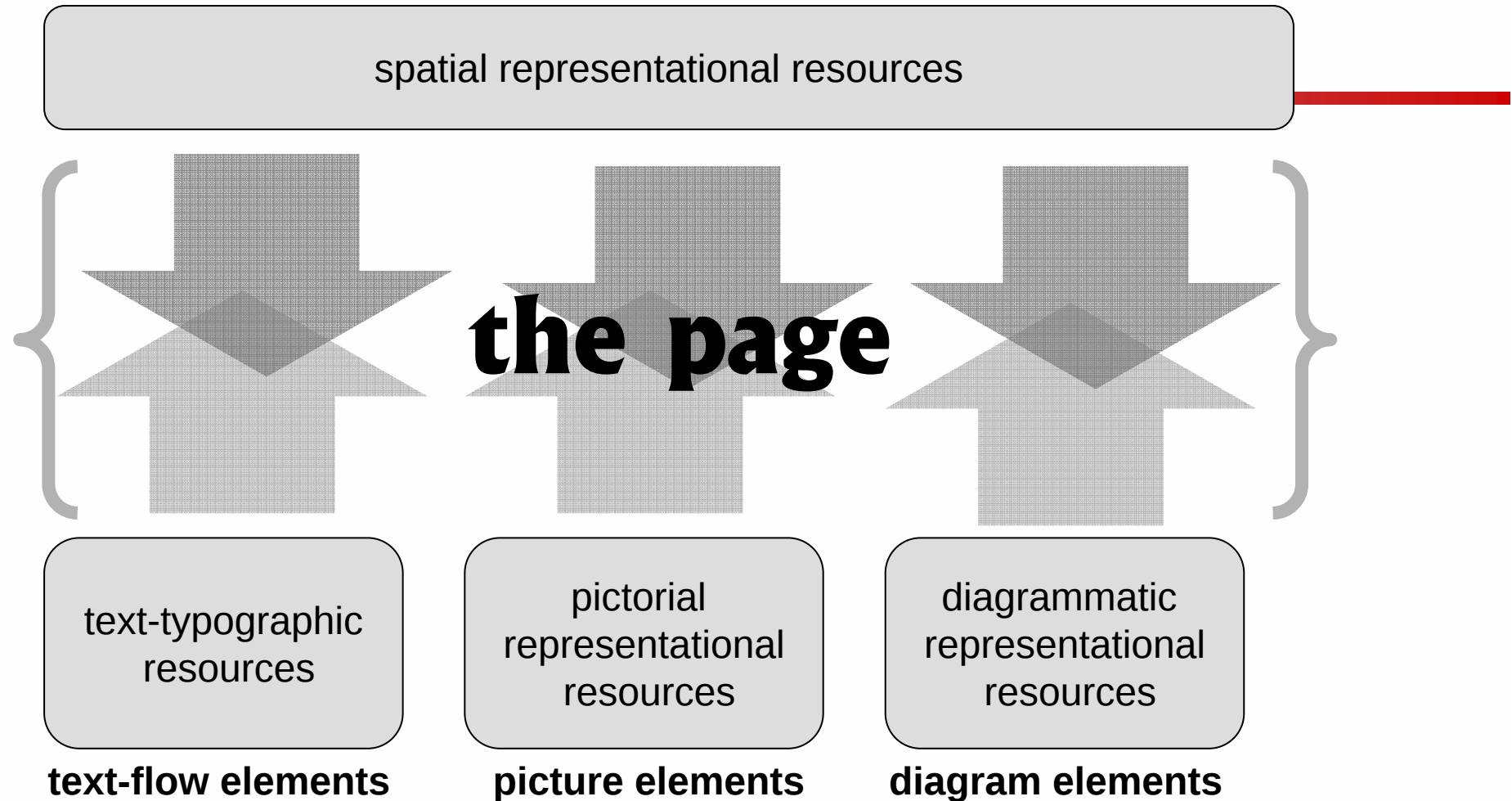
pre-ISFC Institute, Sydney, July 2008

Dynamic 2D multimodal artefacts

Brief Review of Some Major Points

- 'mode' and 'modality' must be taken apart more finely than distinctions such as 'verbal'/'visual'
- 're-use' and 're-combinations' of modes across documents makes their analysis challenging
- accounts of multimodal meaning need to place themselves explicitly in line with treatments of 'discourse'

spatial configurations



Aspects of Methodology

- Very important to:
 - have clear criteria for identifying the **UNITS** that are taken to operate in any semiotic mode
 - consider the consequences and opportunities provided for working with those units by the **MATERIALITY** employed in the semiotic mode.

2D Static / 2D Dynamic

- The 2D static artefacts looked work essentially with **SPACE**
- The 2D dynamic artefacts we will now consider work essentially with **TIME**

In its pure form, this offers a fresh challenge: very different from considerations of the 'static image'

Example 1



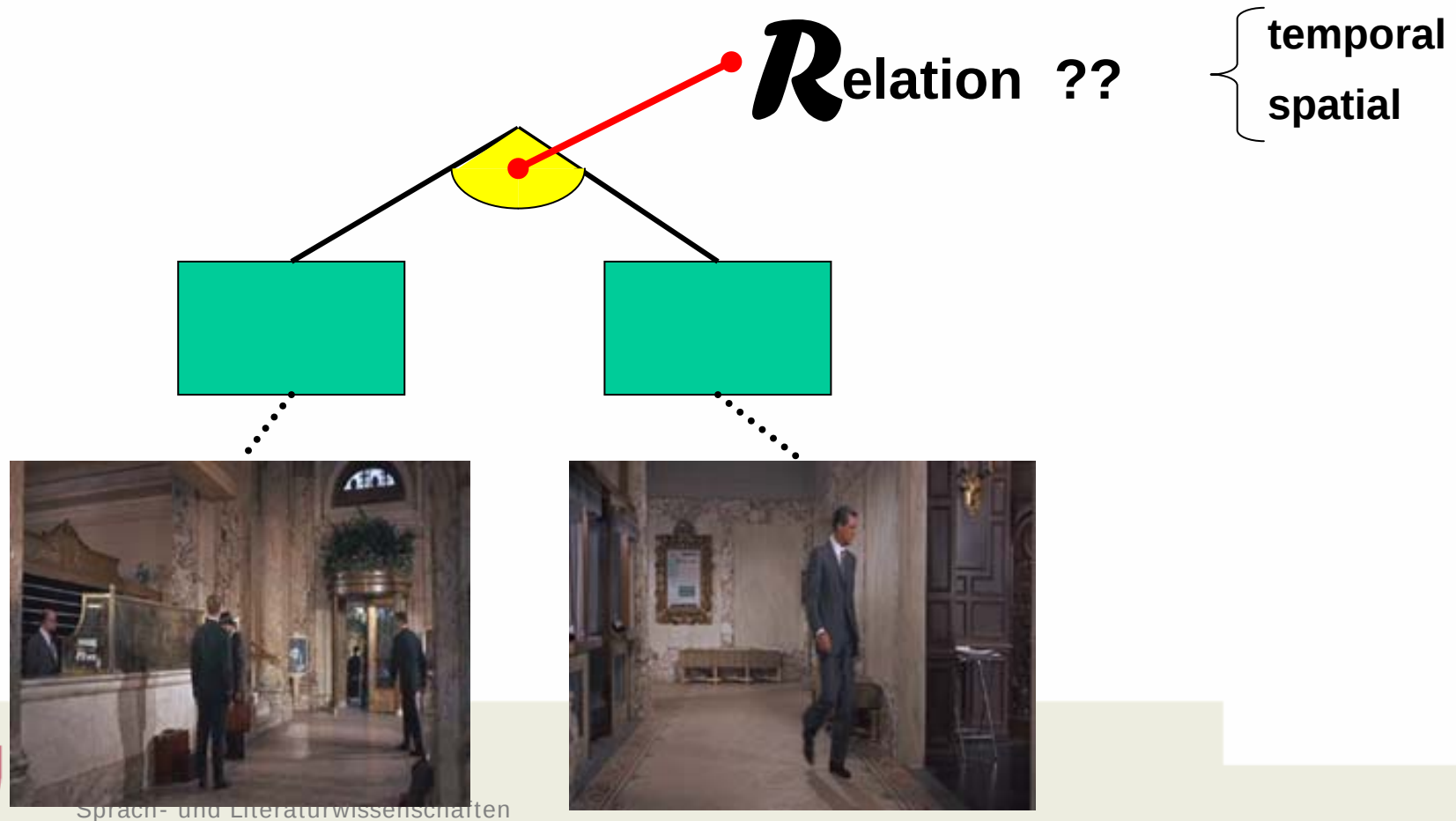
What are the parts of a film?

Film is a sequence of shots, which (somehow) combine into larger parts

- How does this work?
- How can we recognise the larger parts?
- What properties do these parts take on?
- What meanings do/can they carry?

Noël Burch (1969)

Praxis du cinema Paris: Éditions Gallimard
Theory of film practice (1973) London: Praeger Publishers



A question

- What is the interpretation, as it happens, of this film fragment?



Example 2

- “Blow up”
Michelangelo Antonioni
1966

A question

- What is the interpretation, as it happens, of this film fragment?
 - expectation generating...
 - convention...
 - intended...
 - method...

Interpretation questions

- How are the relationships signalled?
- What range of relationships are there?
- Are there filmic 'conjunctions'?
- Are there filmic 'punctuations'?
- Are there filmic 'rhetorical relations'?

Semiotic-Linguistic Approach: Christian Metz



“Going from one image to two images, is to go from image to language.”

Film Language, p46.

“The cinema: language or language system?”

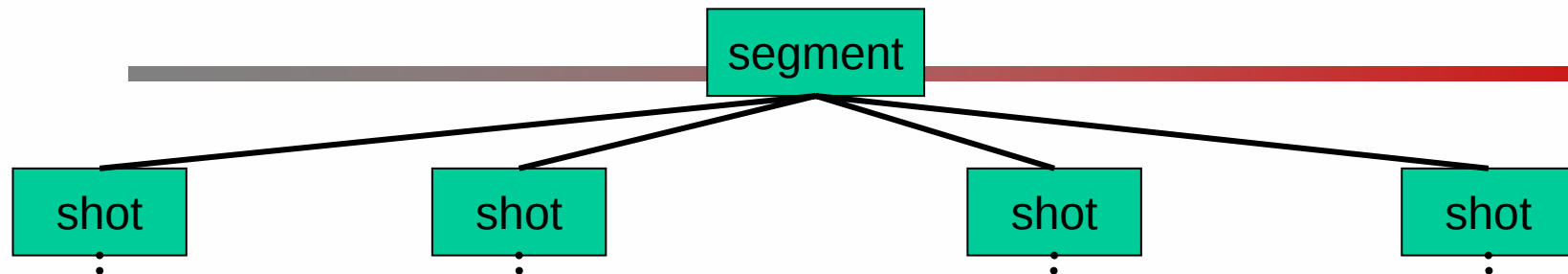
Semiotic-Linguistic Approach: Christian Metz



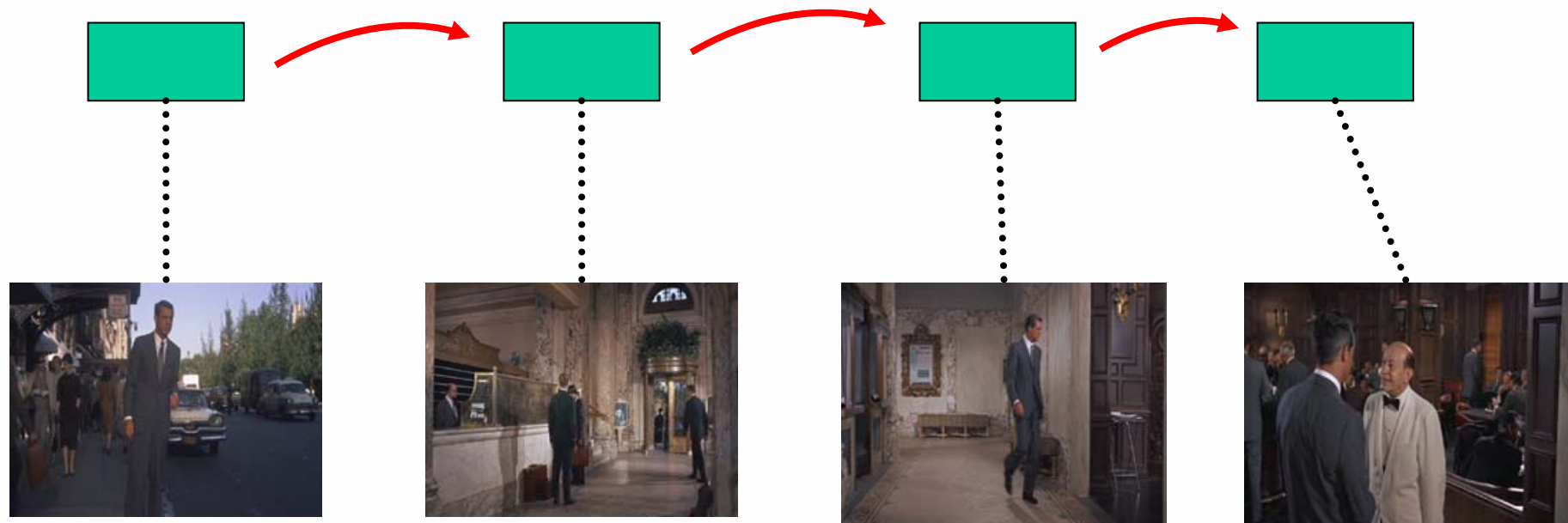
“Filmic manipulation transforms what might have been a mere visual transfer of reality into discourse.”

“Some points in the semiotics of the cinema” p105

North by Northwest: sequence 1



Analysis: decomposing the film



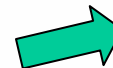
Successive development

2 shots

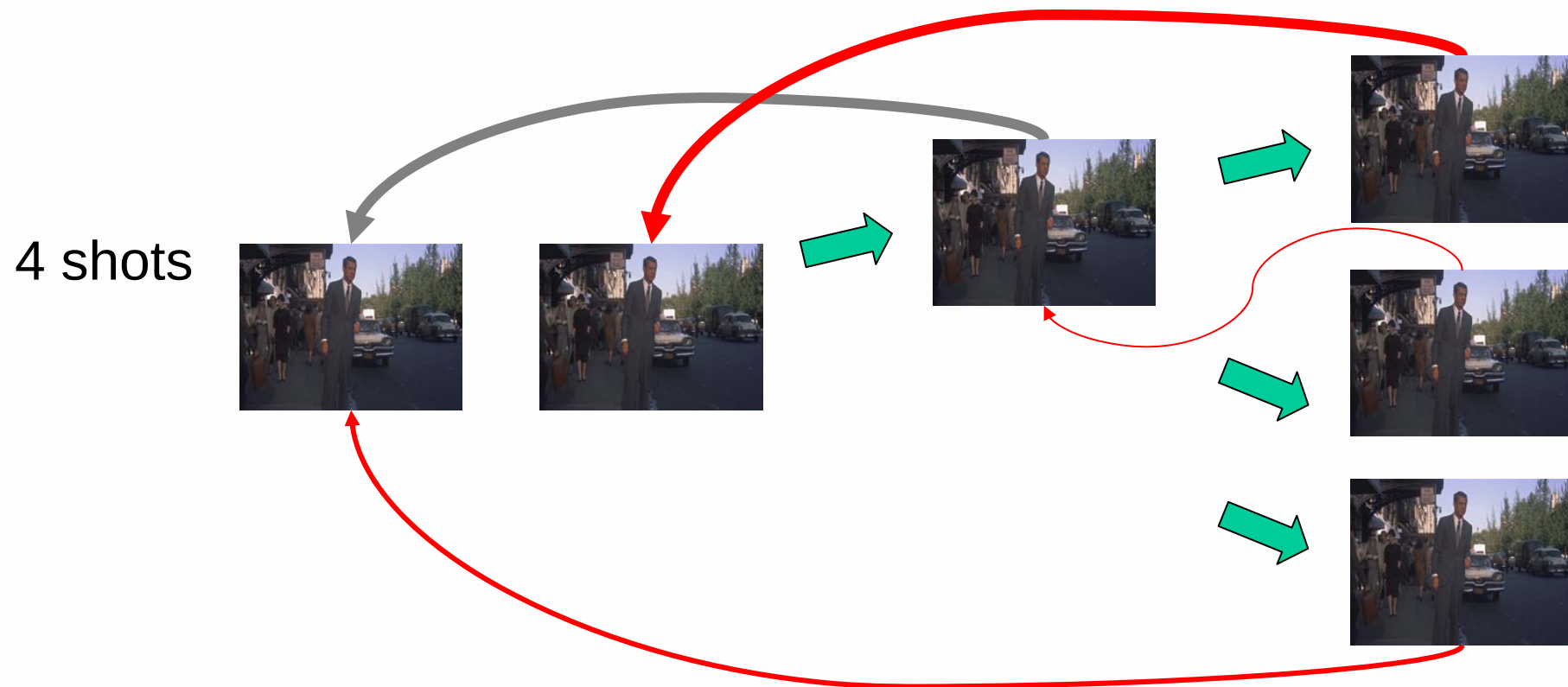
difference



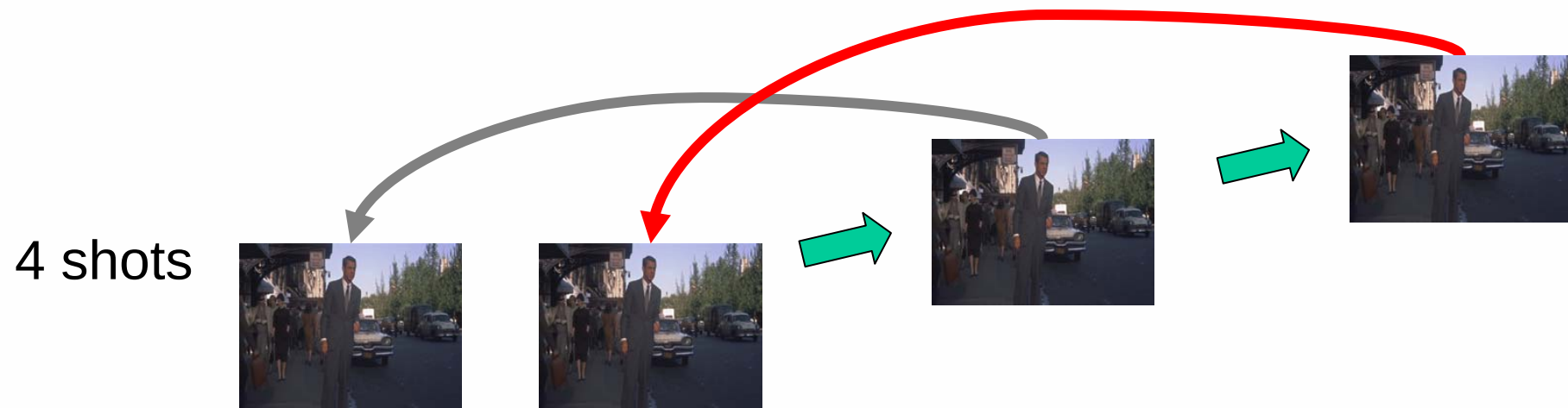
3 shots



Successive development



Successive development



Analysis: Getting Started



shot



shot

camera

sound

music



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Metz: Looking for 'units'

“Although each image is a free creation, **the arrangement of these images into an intelligible sequence** —cutting and montage—brings us to the heart of the semiological dimension of film. It is a rather paradoxical situation: Those proliferating (and not very discrete!) units—the *images*—when it is a matter of composing a film, suddenly accept with reasonably good grace the constraint of a few large syntagmatic structures.”

“Some points in the semiotics of the cinema” p101

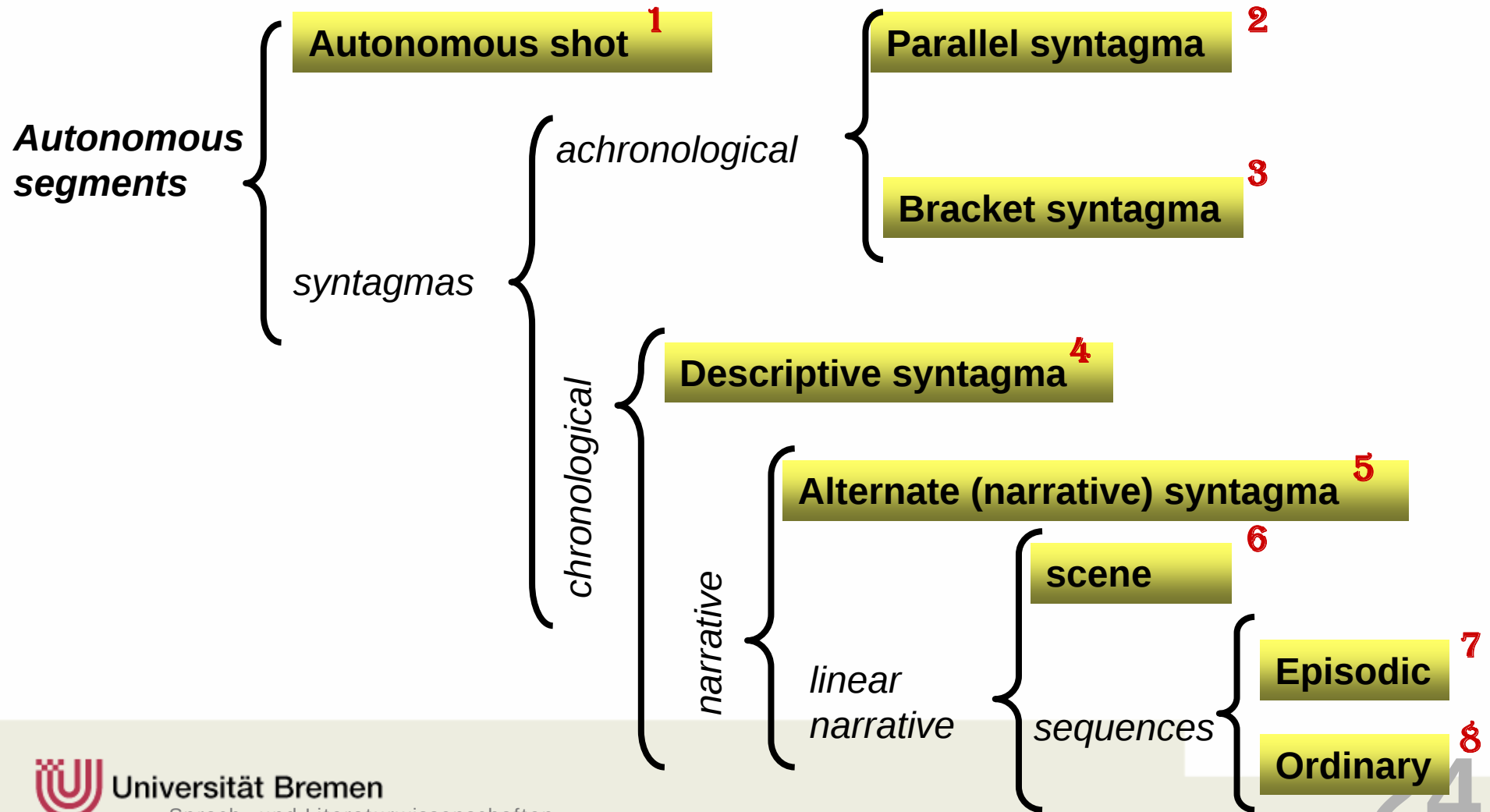
'Classical' Film Structure

Christian Metz (1966; 1974)

The *grande syntagmatique*

The “large syntagmatic category”
of the image track

The “large syntagmatic category” of the image track

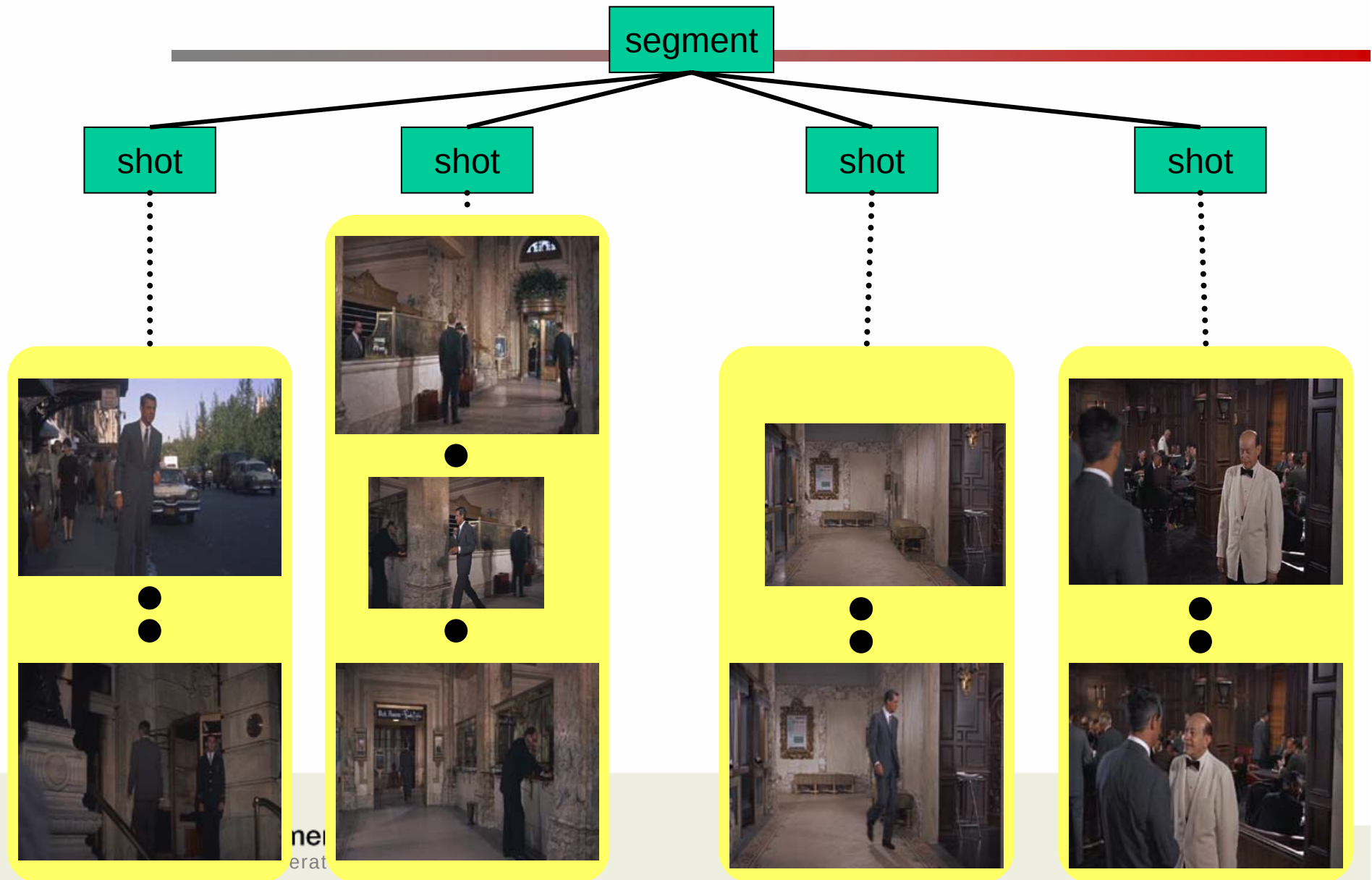


Syntagmatic analysis of film extracts according to Metz

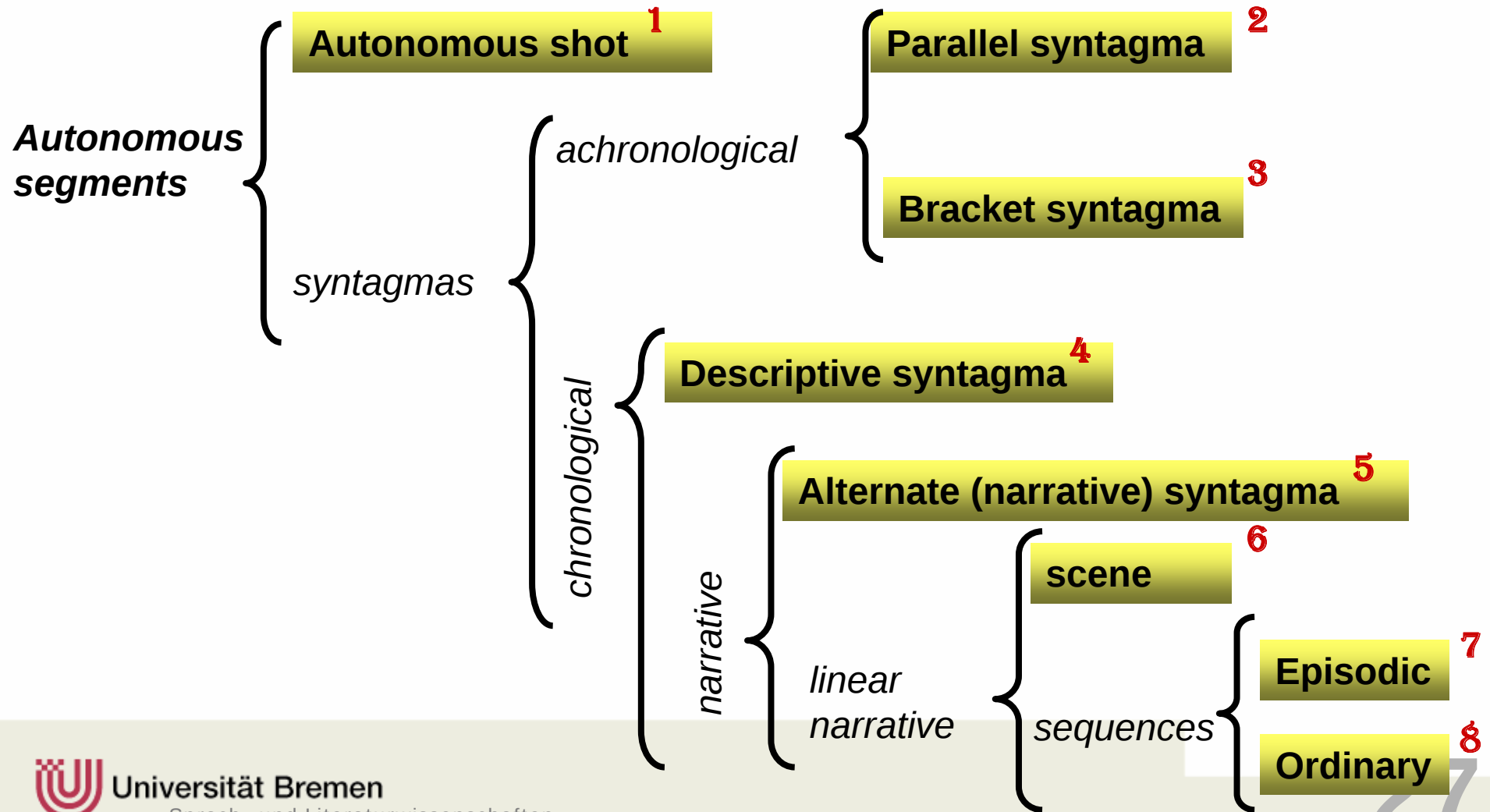
- Isolating autonomous sequences
- Breaking these down into 'shots'
- Classifying these into 'larger' structures according to Metz's categories
- Intended Result:

relations between shots should be clear

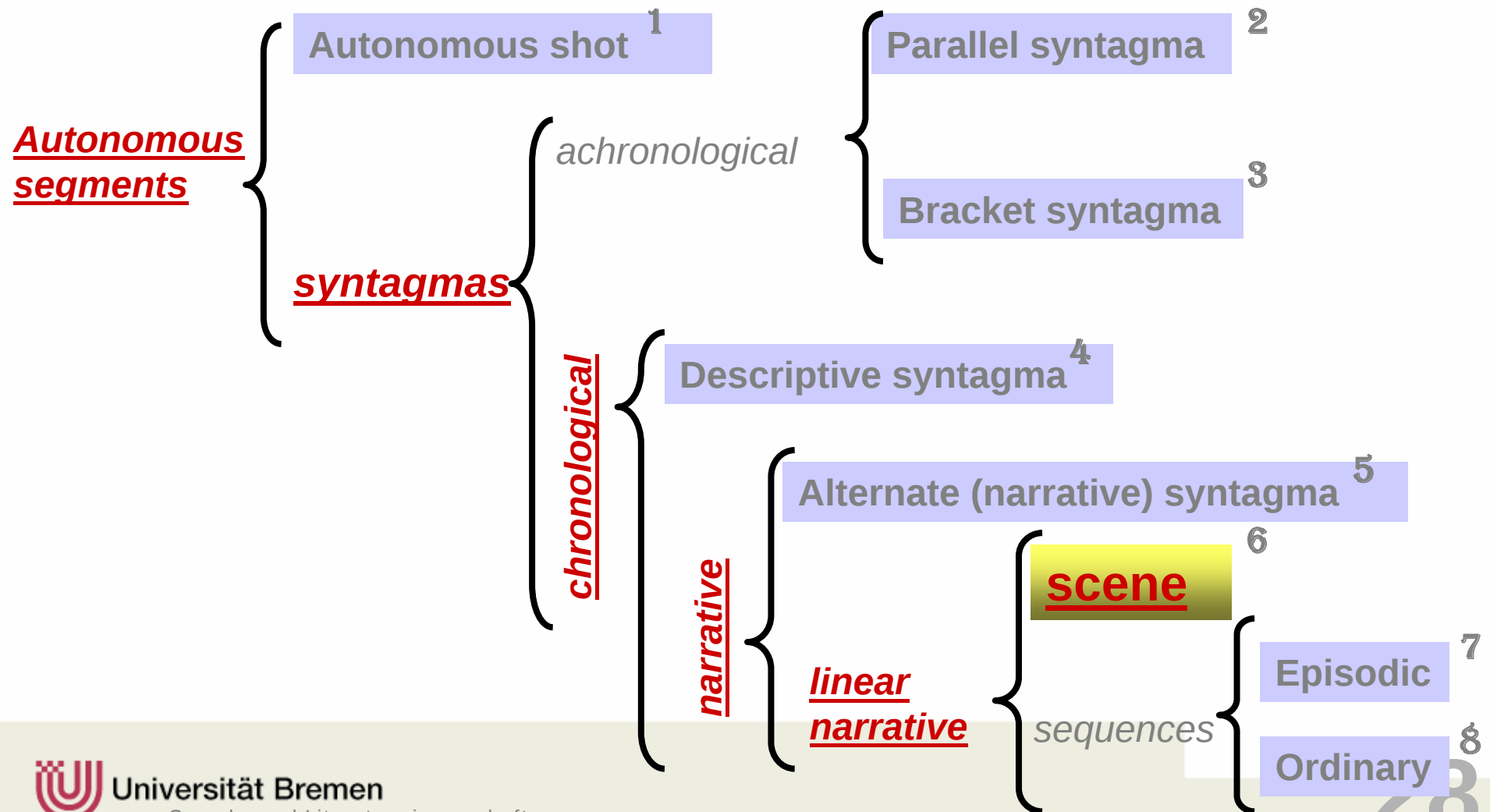
A film sequence...



The “large syntagmatic category” of the image track

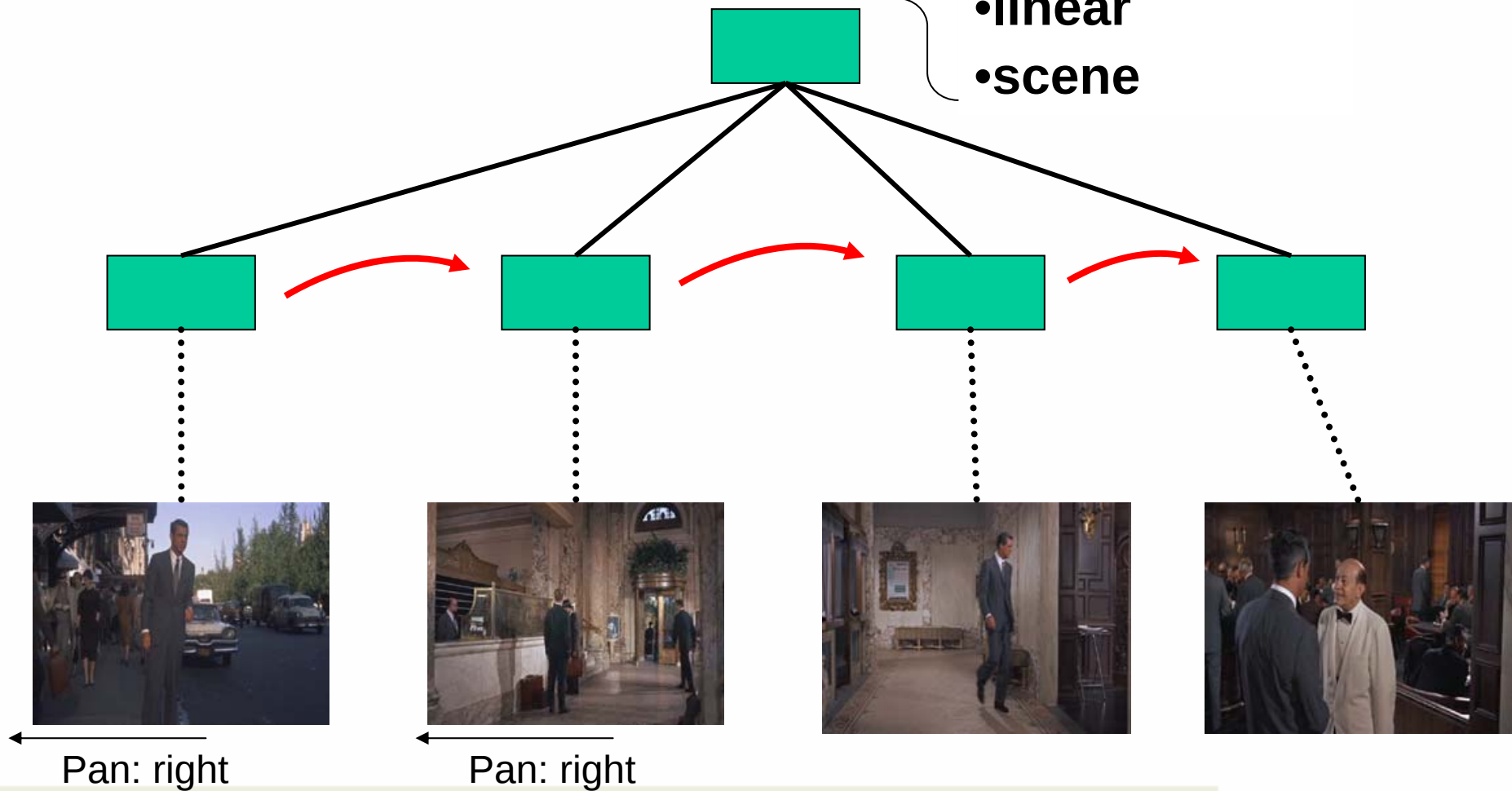


The “large syntagmatic category” of the image track



North by Northwest: sequence 1

- syntagma
- chronological
- narrative
- linear
- scene



Structure is functional

- What is the interpretation, as it happens, of the film fragment?
 - expectation generating...
 - convention...
 - intended...
 - method...

Lev Vladimirovich Kuleshov (~1919)



- **The Kuleshov Effect**
 - expressionless view of the face of Tsarist matinee idol, Ivan Mozhukin placed between:
 1. a bowl of hot soup,
 2. a dead woman lying in a coffin,
 3. a little girl playing with a teddy bear.

"The public raved about the acting of the artist. They pointed out the heavy pensiveness of his mood over the forgotten soup, were touched and moved by the deep sorrow with which he looked on the dead woman, and admired the light, happy smile with which he surveyed the girl at play." (Vsevelod Pudovkin)



Lev Kuleshov (~1919)

- **Shot Sequencing Experiment.**
 1. a smiling actor, a revolver, and the same actor looking frightened.
 2. a frightened actor, a revolver, and then a smiling actor

Sequence 1 interpreted as displaying cowardice.

Sequence 2 interpreted as displaying bravery.

Kuleshov: "Meaning in cinema is a function of the sequential arrangement of its parts."

Lev Kuleshov (~1919)

- **‘Creative Geography’**
 - Sequence made up of entirely distinct shots made at different times and places:
 - a waiting man,
 - a walking woman,
 - a gate,
 - a staircase,
 - and a mansion.

Kuleshov: The audience read spatial and temporal 'sense' into the sequence, deciding that they saw the man and the woman meeting in front of the gate at the same time.

Dynamic 2D multimodal artefacts

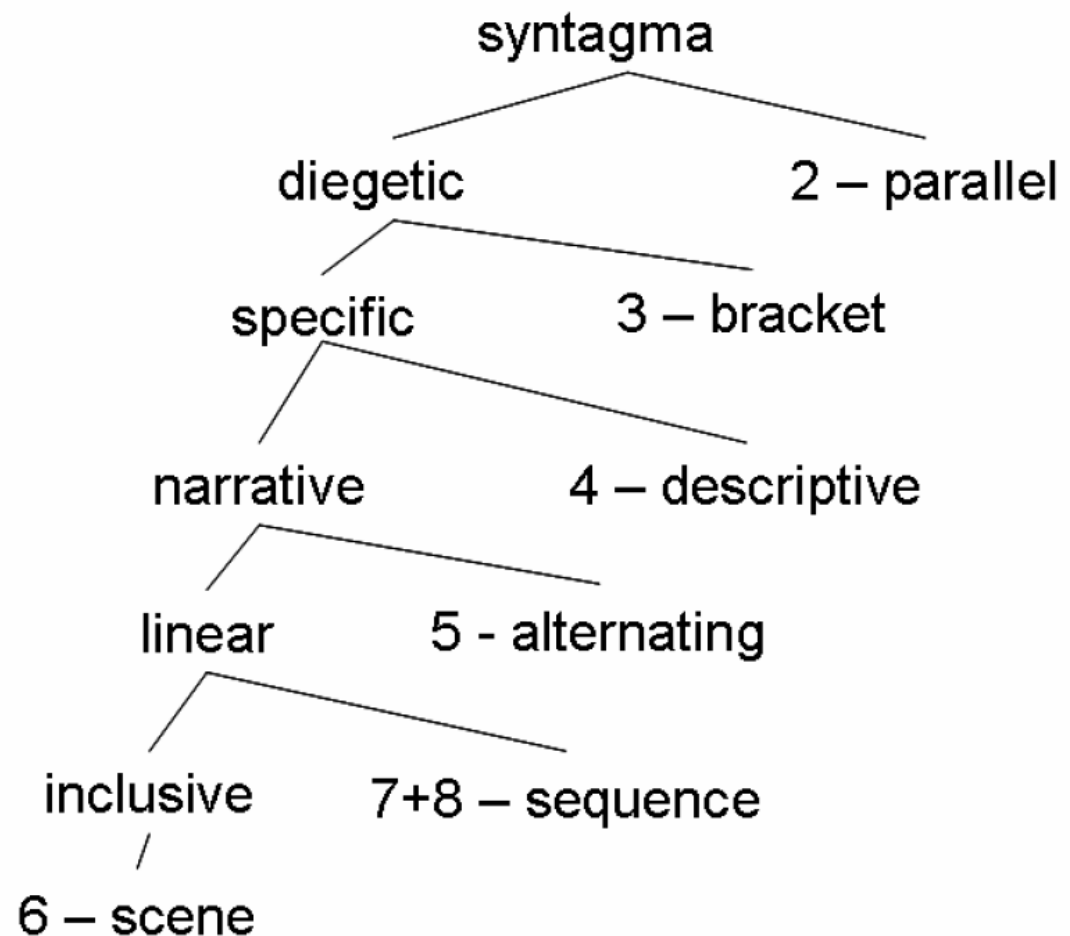
Part 2

Problems with the Metzian account

- Not always clear *which* syntagm applies
- Not always clear where the *boundaries* of segments are
- Not always clear that different analysts will make the same divisions: *reproducibility*
- Not clear if it is *exhaustive*
- Not clear if it provides *enough information* for interpretation

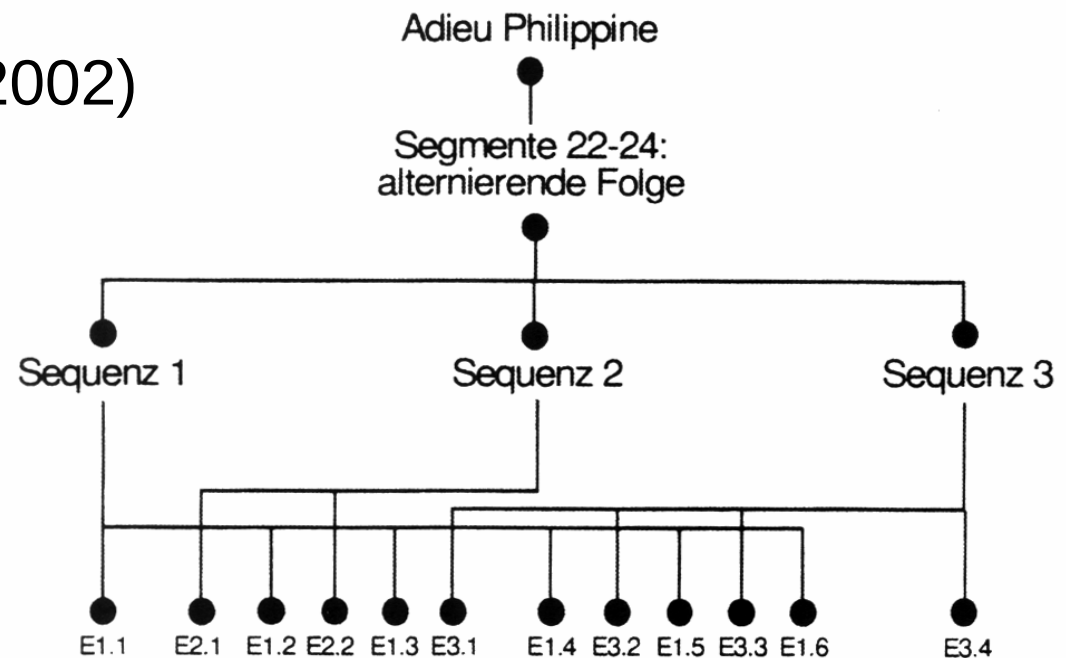
Attempts to deal with the problems...

- Michel Colin (1989)
 - re-representation as a 'decision tree'
 - using phrase structure grammar



Attempts to deal with the problems...

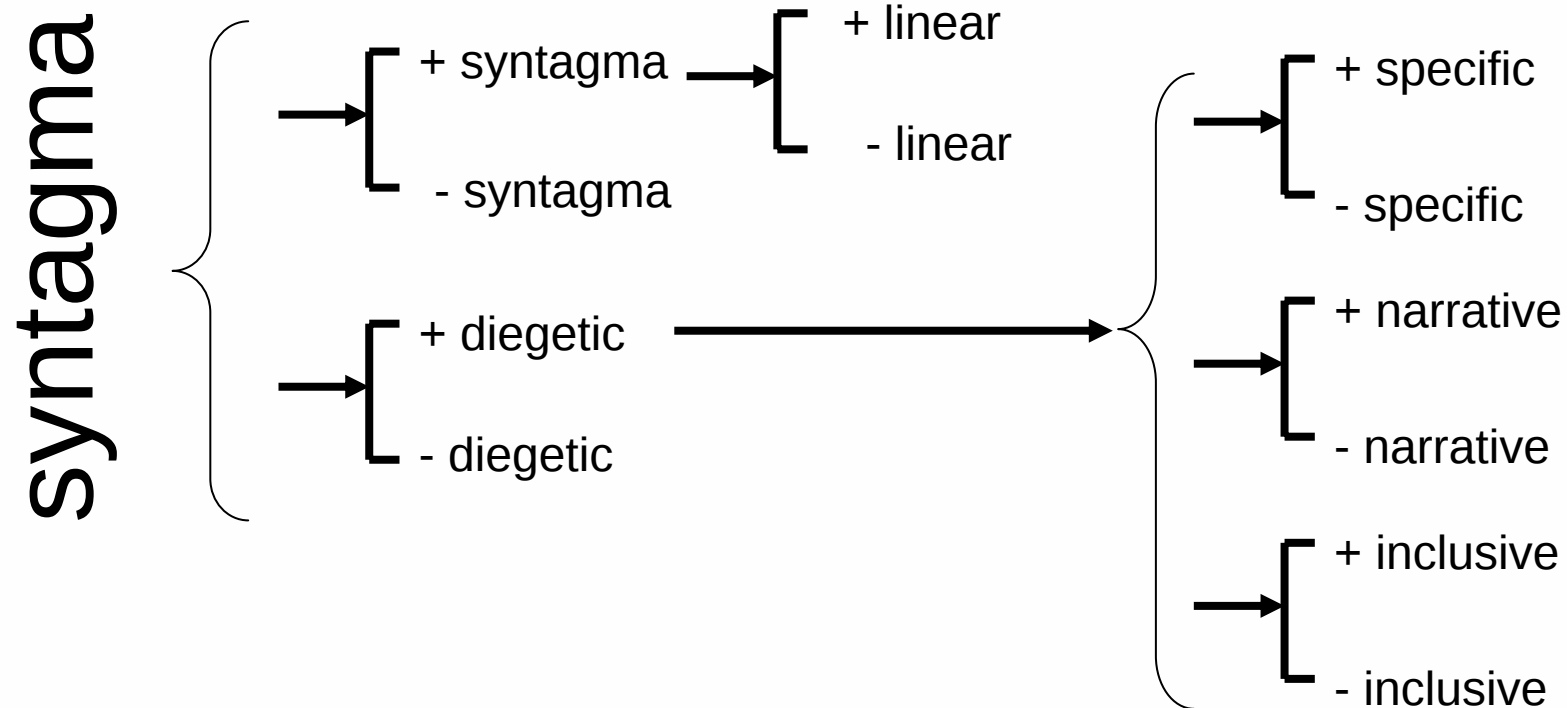
- Fledelius (1979)
- Möller-Naß (1986)
- Schmidt & Strauch (2002)



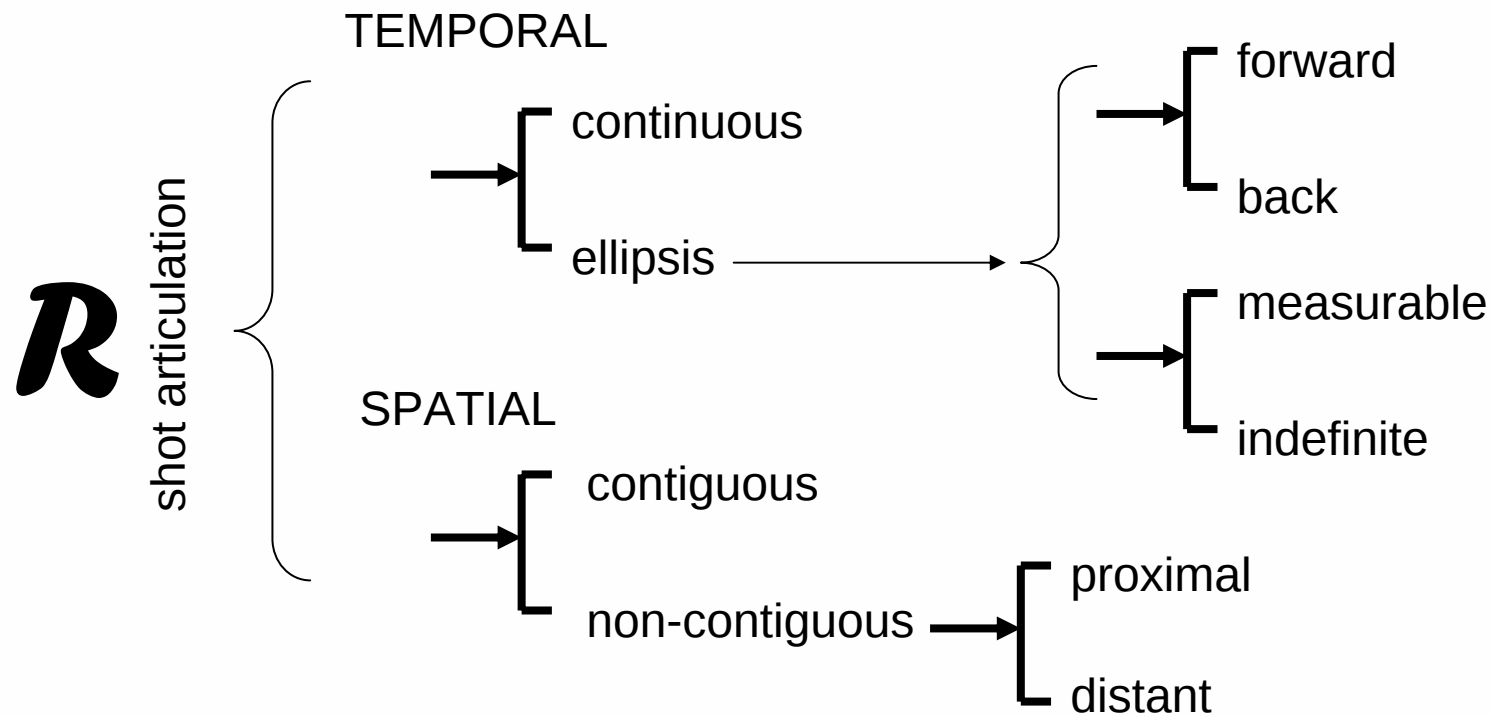
A characterisation of the problem

- These accounts all stay within the **syntagmatic** axis of description
- We also need a **paradigmatic** description

Paradigmatic overview of articulations adapted from Colin (1989)



Paradigmatic overview of articulations according to Burch



Types of relations between shots:

spatial: match cuts

- spatial continuity

- e.g., same location ($\pm$ temporal contiguity)

- **discontinuity**

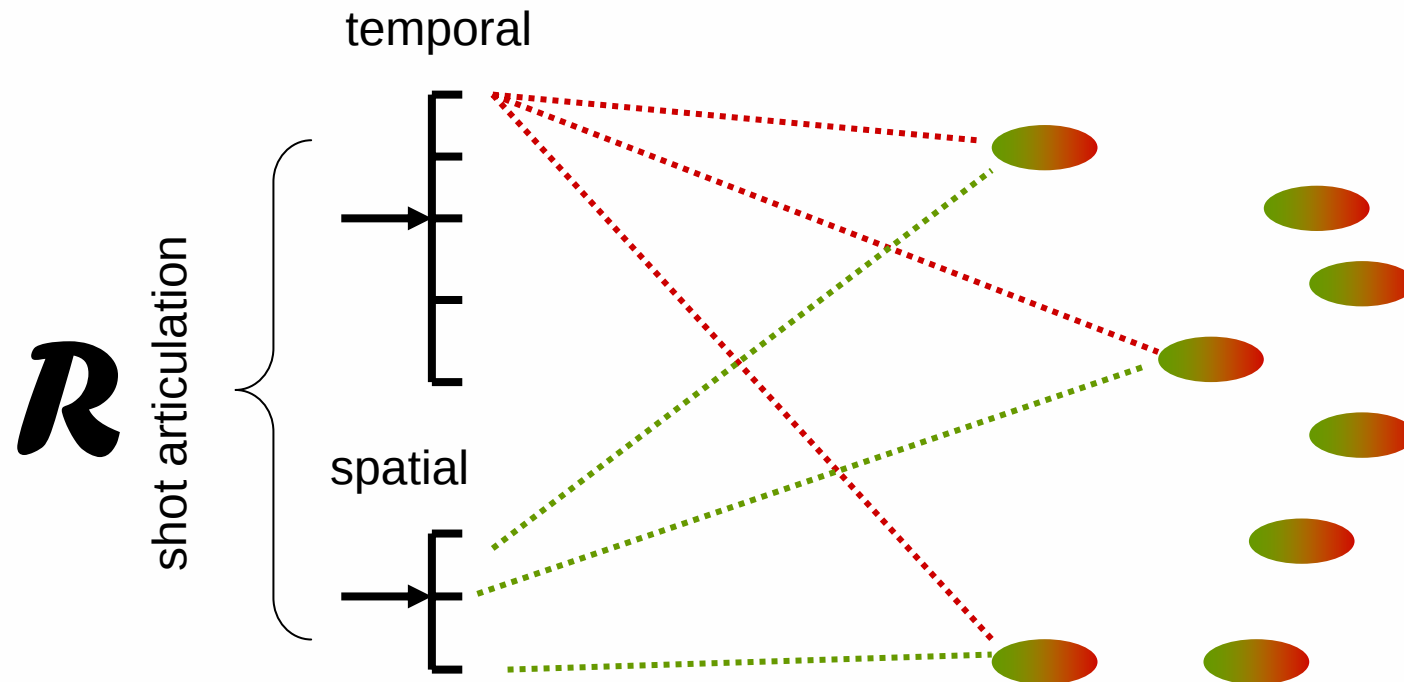
- **proximity**  *spatial orientation*
- radical discontinuity

matching
match cuts
eye-line matches
screen direction
positioning

Burch: spatial and temporal articulation

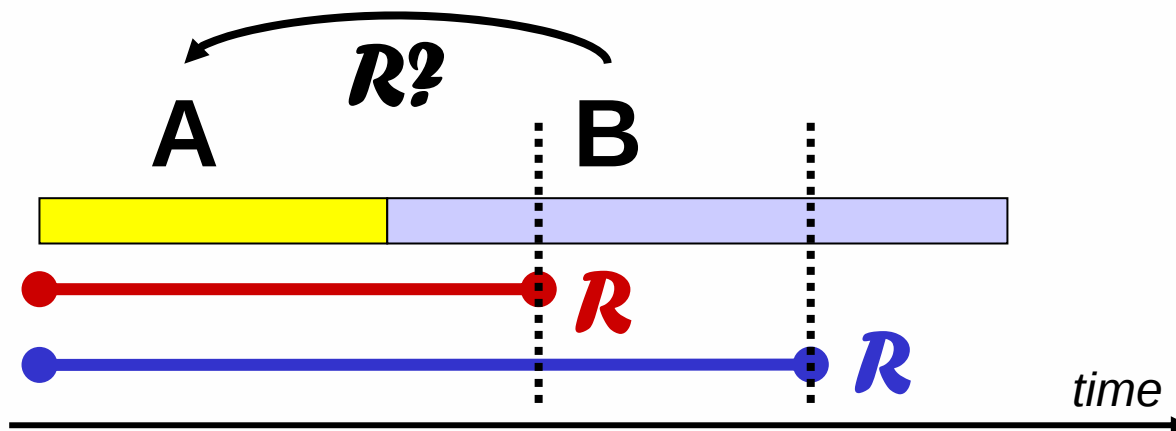
“There are, therefore,
15 basic ways of articulating two shots”

(p11)

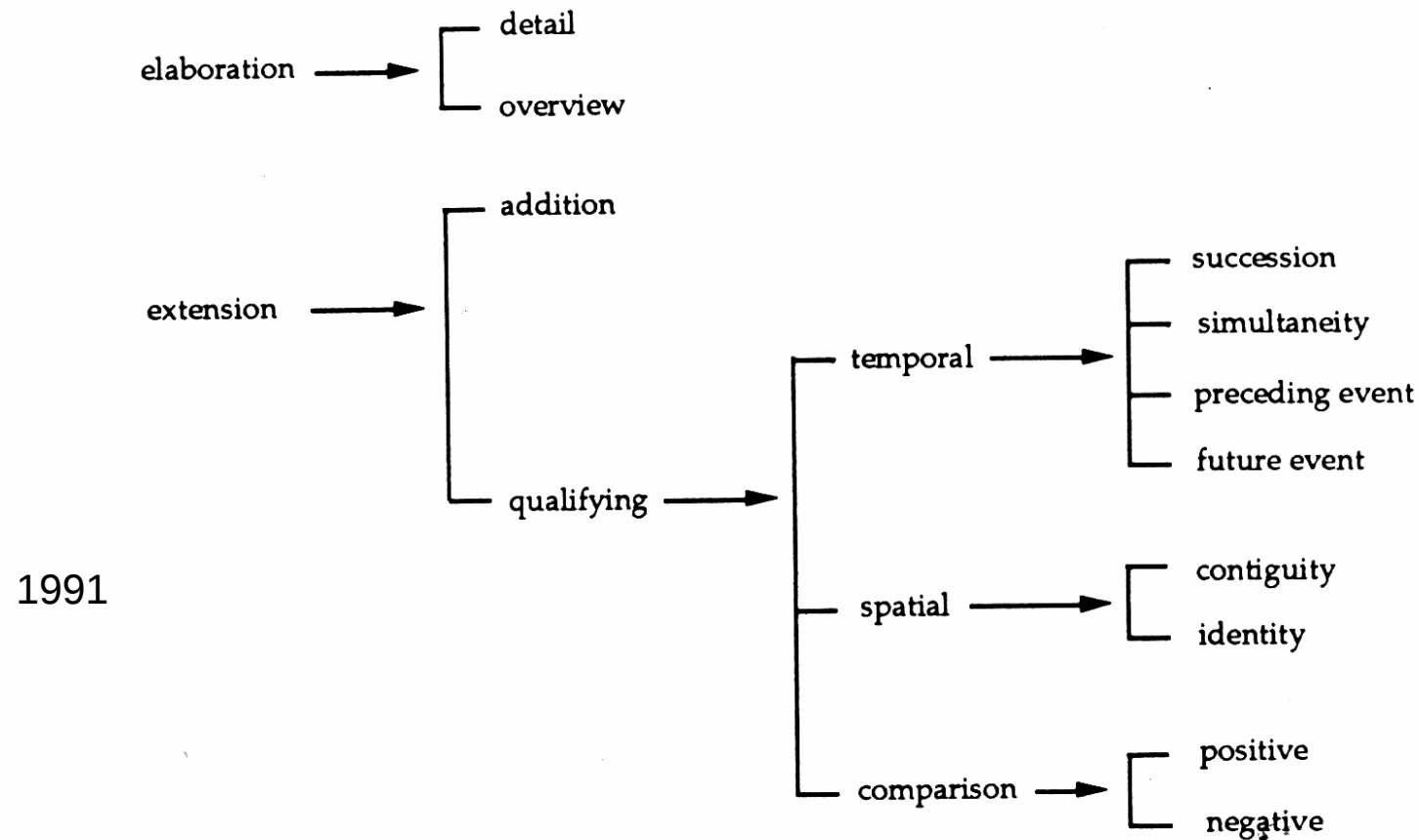


Discourse interpretation

- The kind of relations possible are **elements** that may carry further structure / rhythm
- **Mutual interference** may be used for additional effect



Paradigmatic overview of articulations according to van Leeuwen



Brings with it another problem

- These accounts stay within the **paradigmatic** axis of description!
- We also need a **syntagmatic** description

Example 3

- What is the interpretation, as it happens, of this film fragment?

“North by Northwest”
Alfred Hitchcock
1959

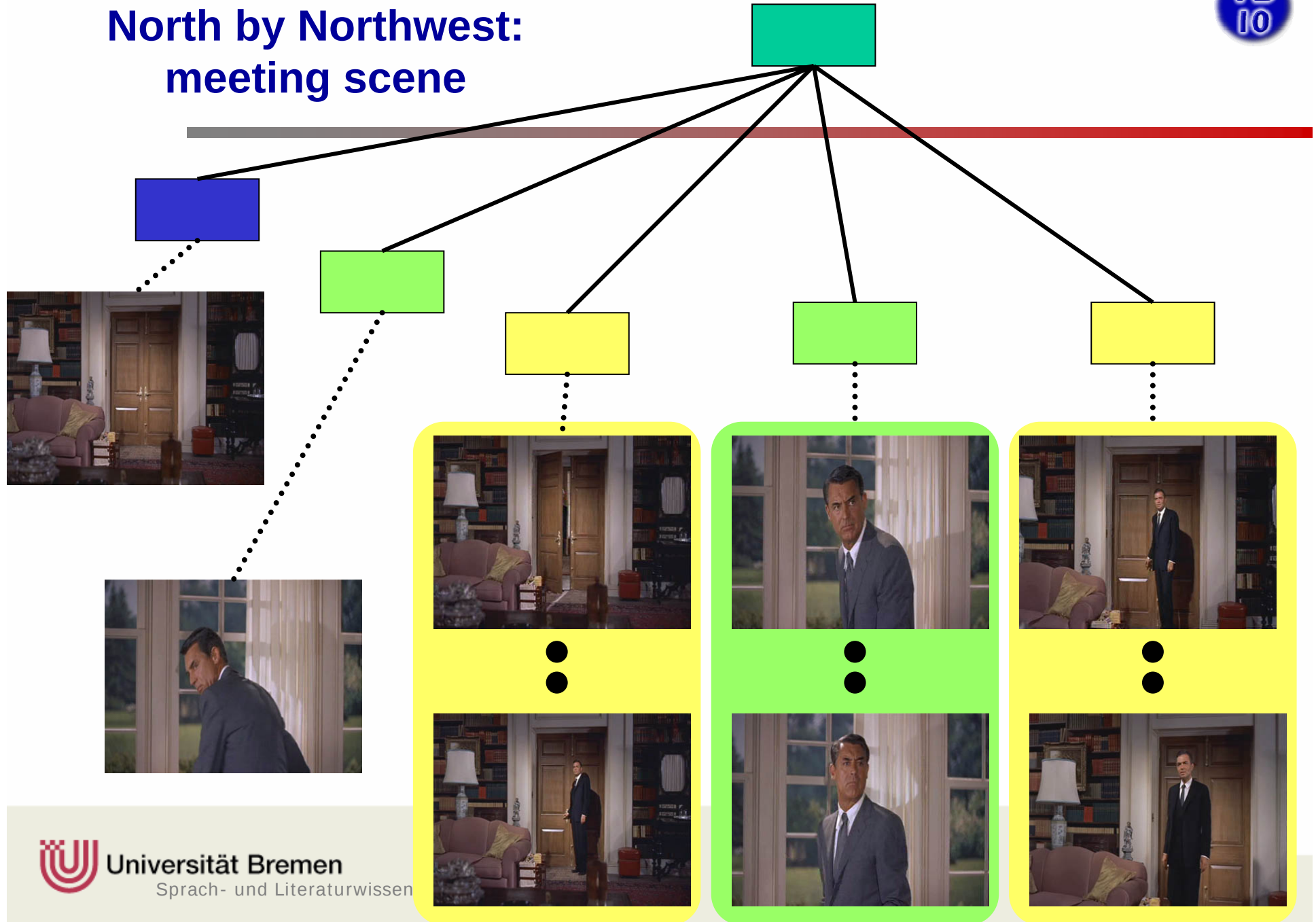


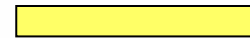
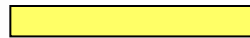
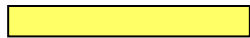
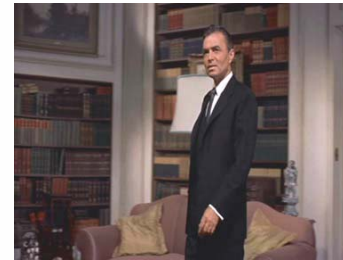
Structures within structures

- Considering substructure
 - Evidence
 - Use
- “North by Northwest”
Alfred Hitchcock
1959



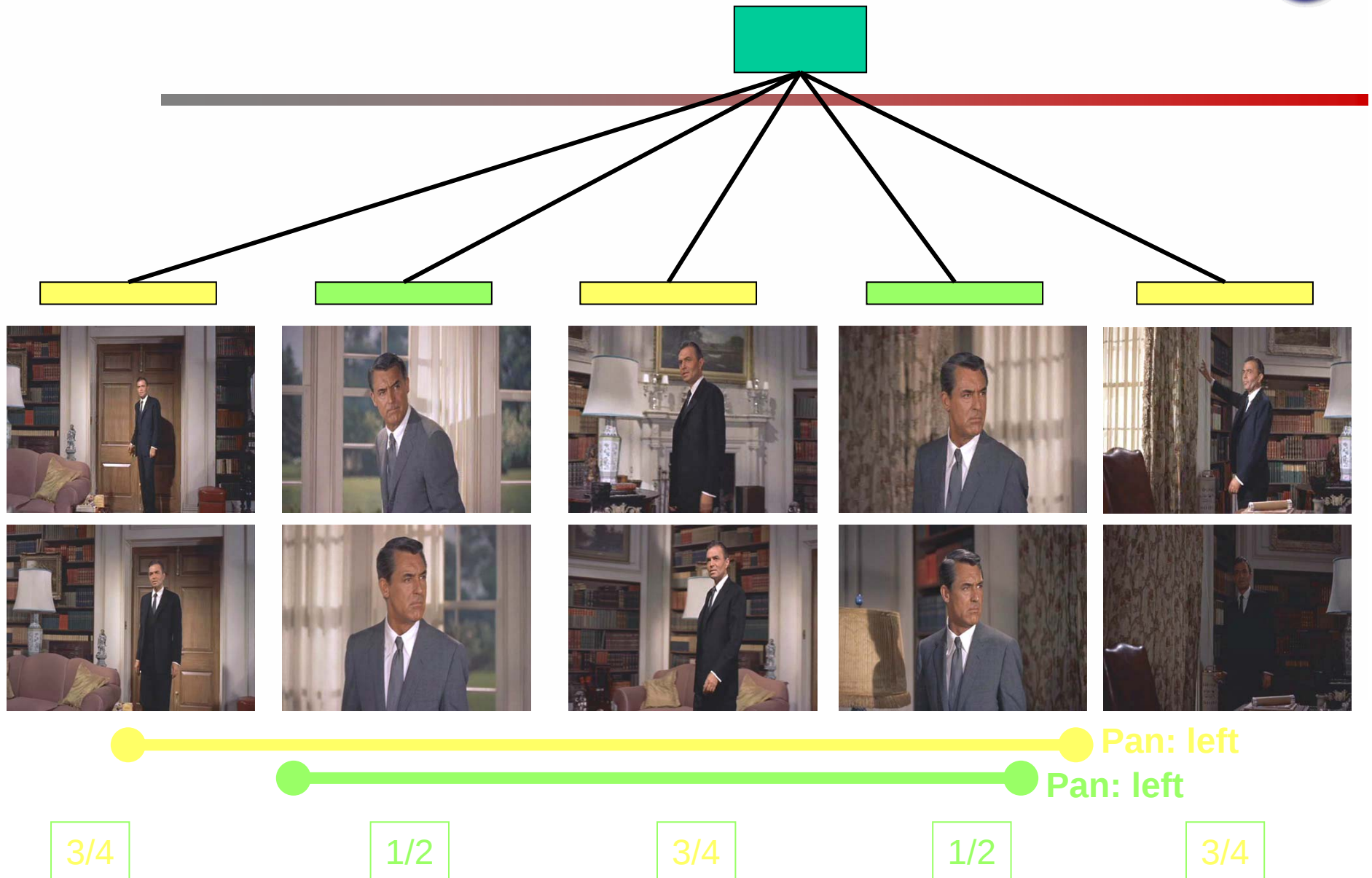
North by Northwest: meeting scene



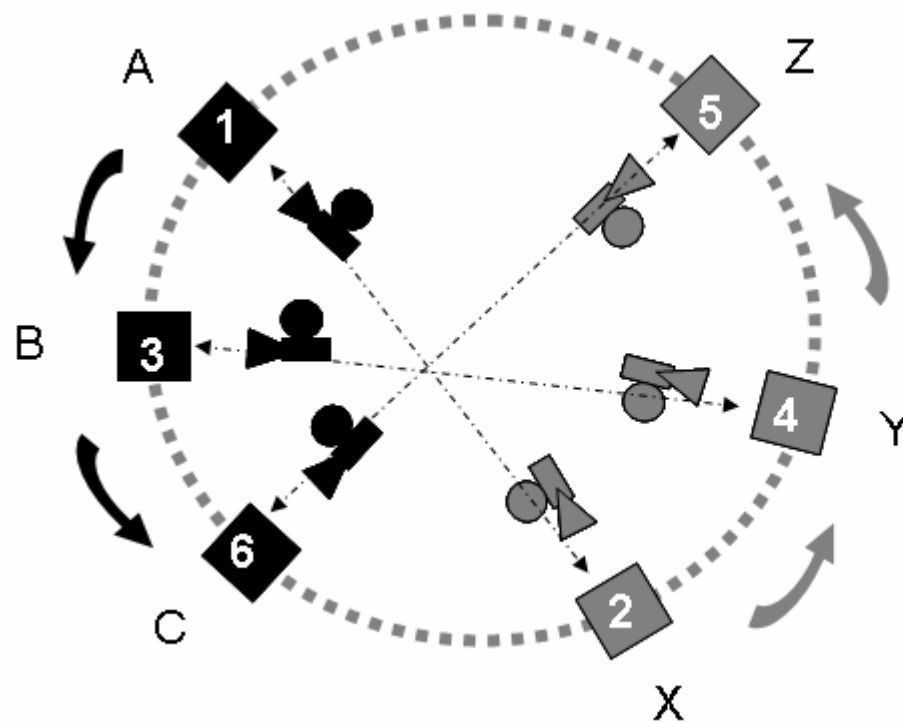


emen

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Structure of the meeting subsequence



Actions:

- A B C
- X Y Z

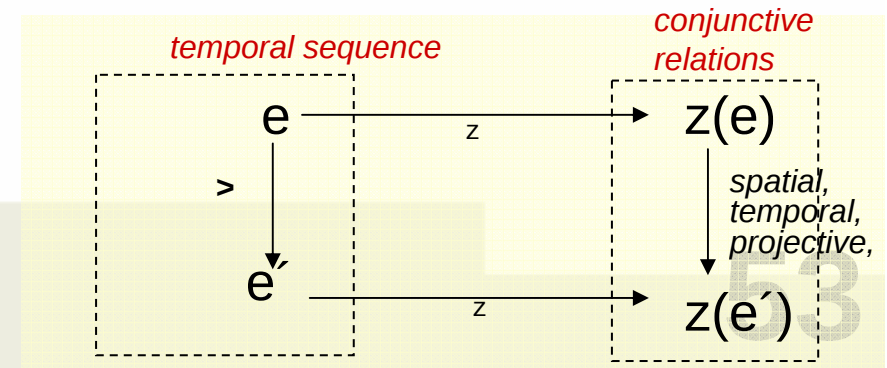
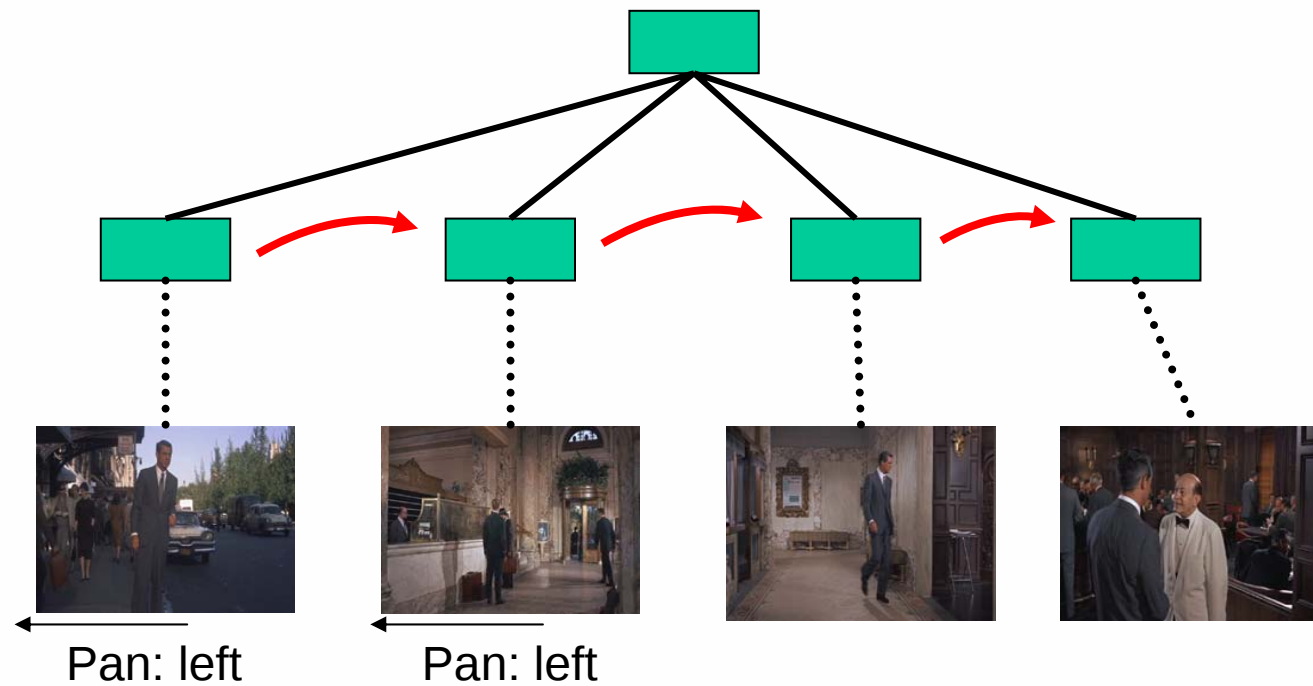
Interleaved:

- A X B Y C Z
- 1 2 3 4 5 6

Summary: problem with preceding accounts

- These accounts take **either** the paradigmatic **or** the syntagmatic
- Need a proper **combination** of both

Image-flow



Successive syntagmatic development

2 shots

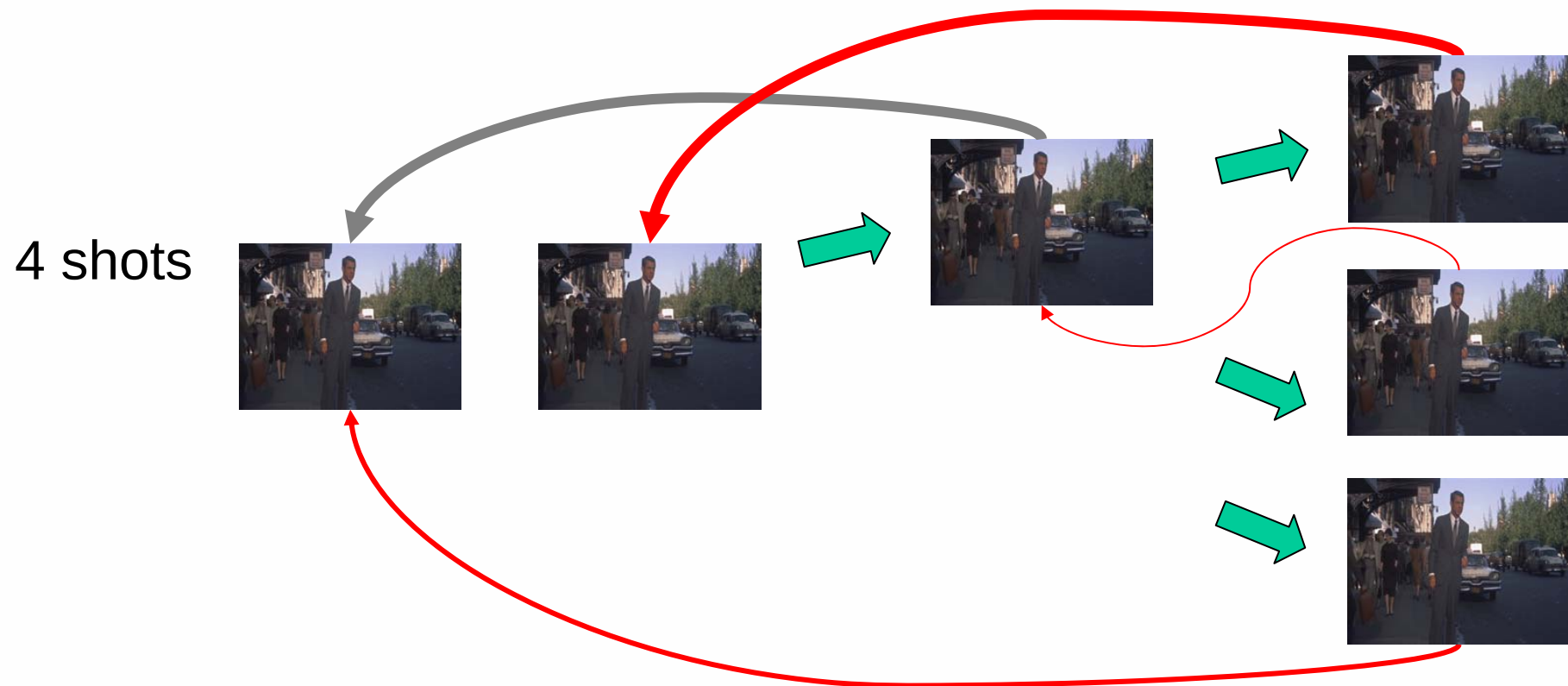
difference



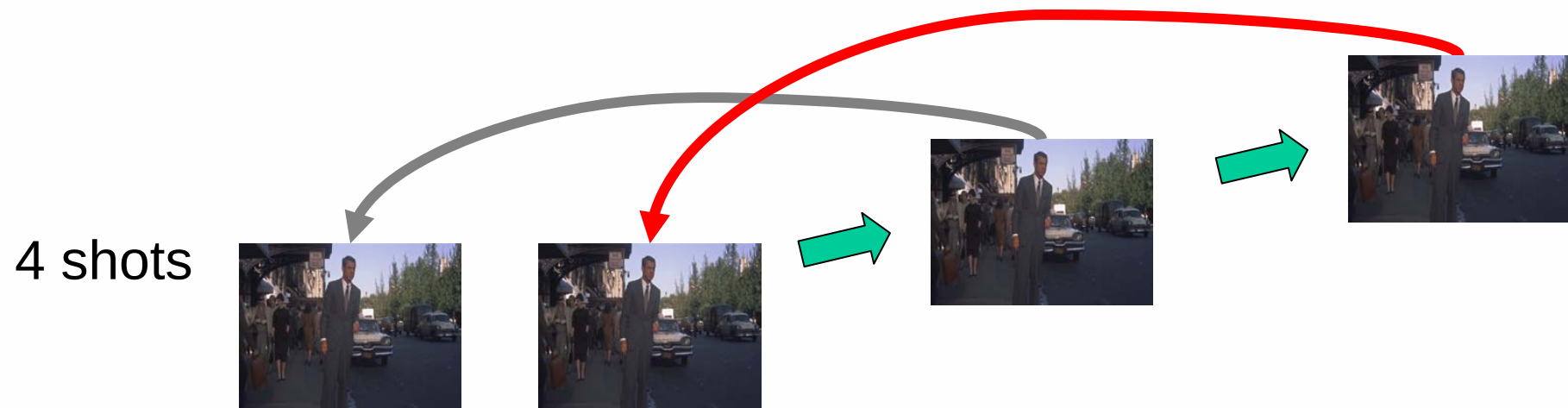
3 shots



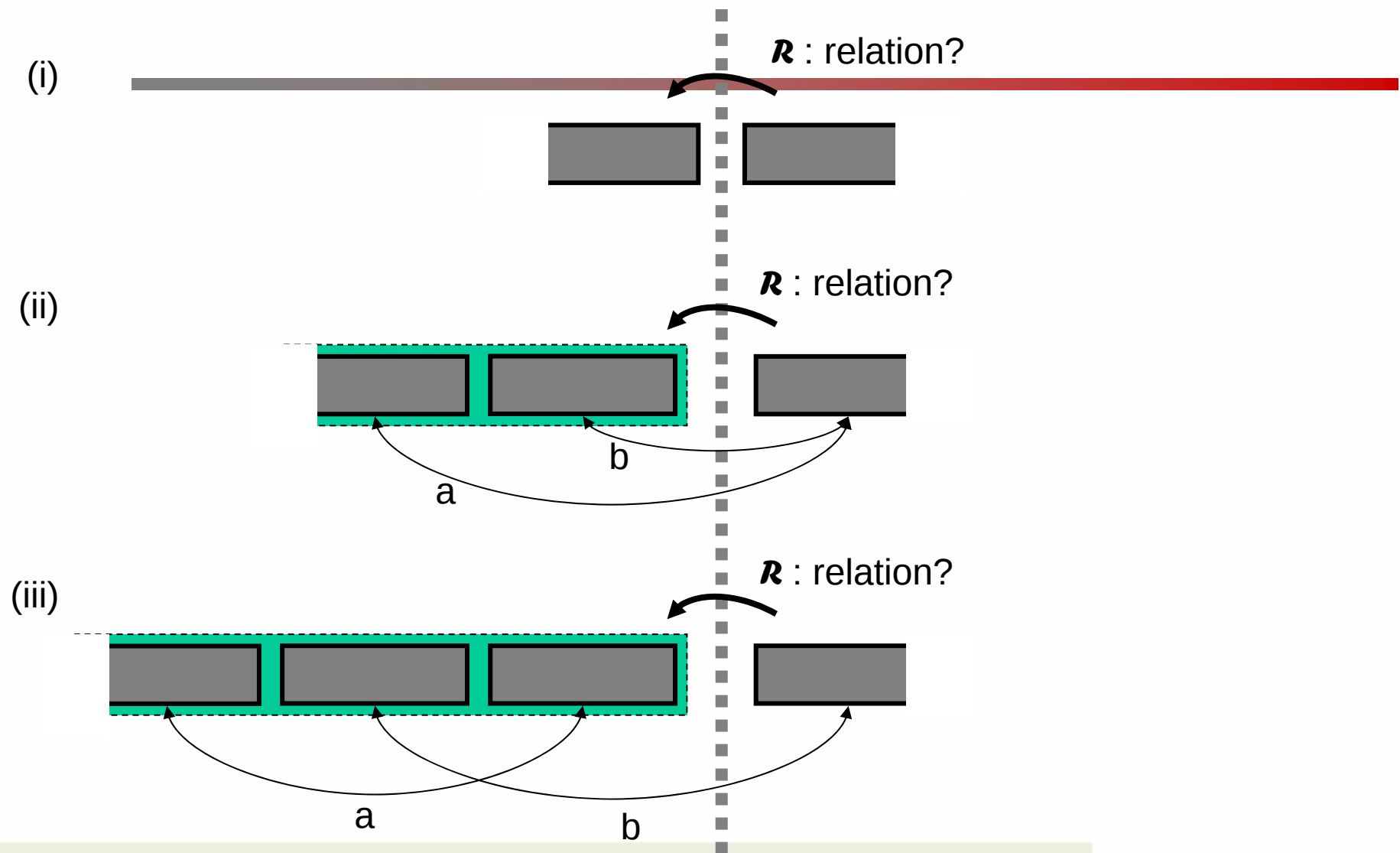
Successive syntagmatic development



Successive syntagmatic development



Successive syntagmatic development



Filmic Syntagmatic Structure

1. [taxis:hypotactic, open-ended]

W	X	Y	Z	$\dots$
α	β	γ	δ	$\dots$
2. [taxis:hypotactic, closed-off]

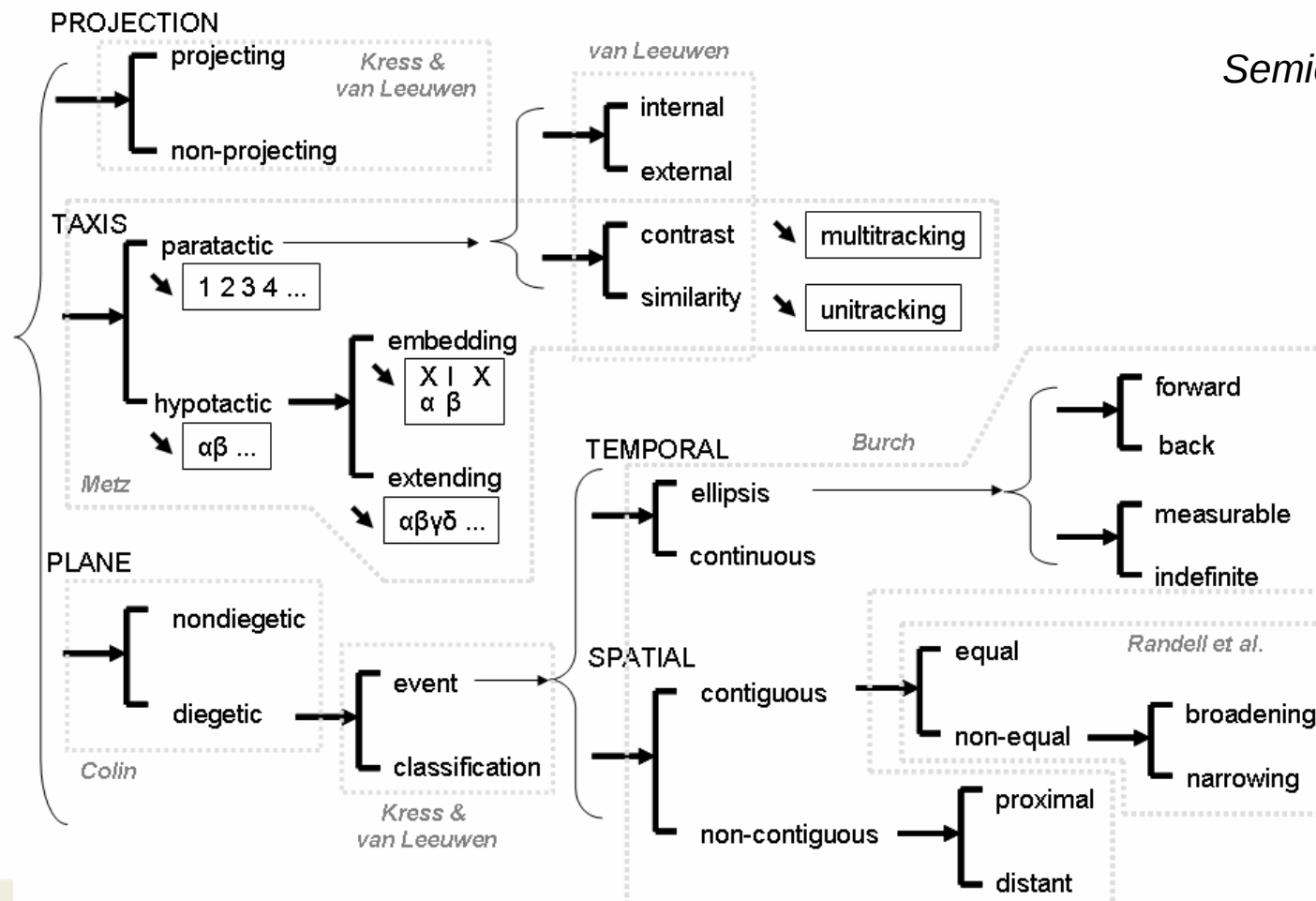
X	I	X
α	$\ll \beta \gg$	α
3. [taxis:paratactic]

W	X	Y	Z	$\dots$
1	2	3	4	$\dots$
4. [taxis: multitracking]

X_1	Y_1	$\dots$	Z_1	X_2	Y_2	$\dots$	Z_2	$\dots$	X_n	Y_n	$\dots$	Z_n
α_1	α_2	$\dots$	α_n	β_1	β_2	$\dots$	β_n	$\dots$	γ_1	γ_2	$\dots$	γ_n

Filmic Paradigmatic Organisation

Bateman
Semiotica 2007



Dynamic 2D multimodal artefacts

Part 3

Analysis of film extracts using the framework for interpretation

- Isolating autonomous sequences
- Breaking these down into 'shots'
- Classifying these according to Metz's categories
- Examining:
 - Types of links between units
 - Classifying the details *within* shots
 - **Reoccurring sub-structures**
 - **Cohesive elements across units**

Structures within structures

- Considering substructure
 - Evidence
 - Use
- “North by Northwest”
Alfred Hitchcock
1959



Film Fragment 4

- What is the interpretation, as it happens, of this film fragment?

“Last Metro”
François Truffaut
1980

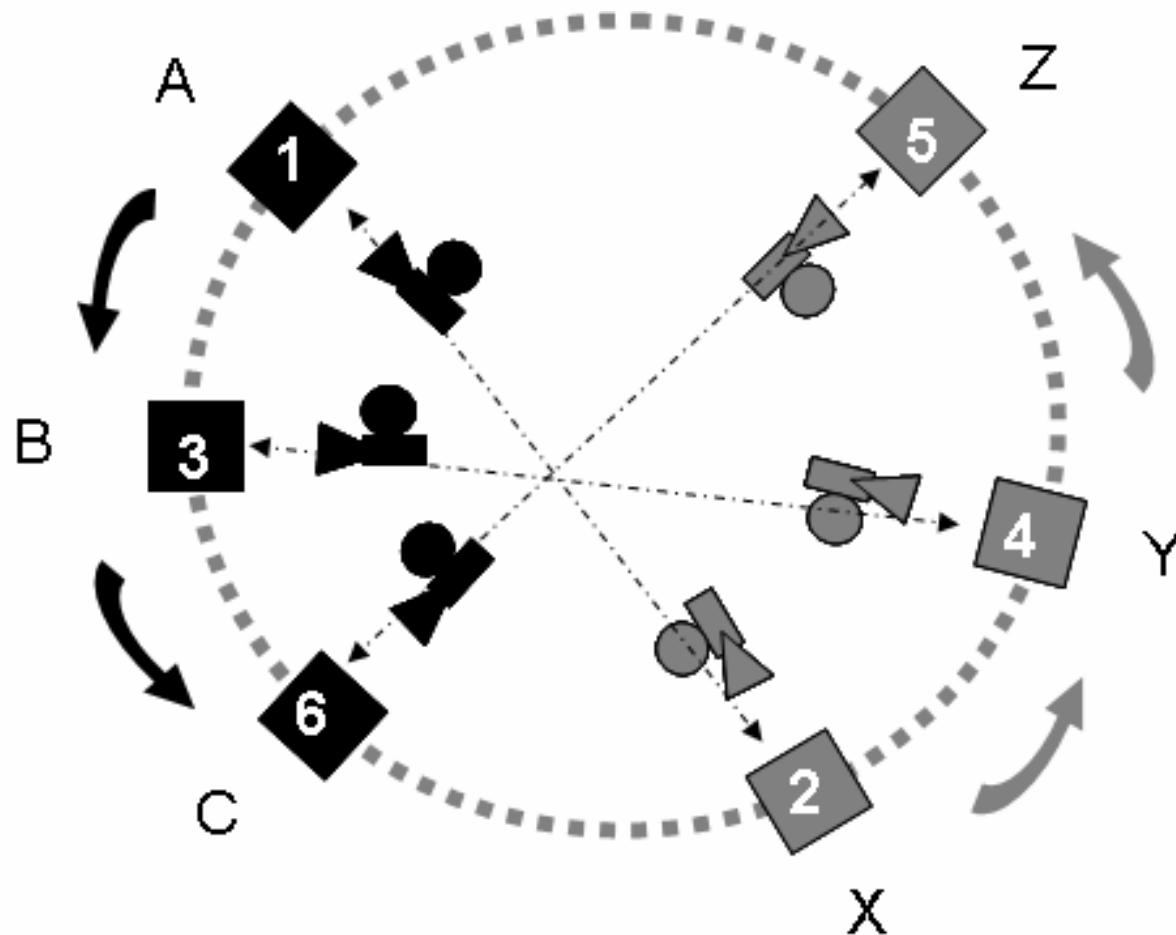


Example 5

- “Star Trek: First contact”
Jonathan Frakes
1996



A complex 'articulation'



Actions:

- A B C
- X Y Z

Interleaved:

- A X B Y C Z
- 1 2 3 4 5 6

Development of constructions over time

- Historically
- Within individual films:
logogenesis and dynamic semantics

“The word, which is the unit of language, is missing;
the sentence, which is the unit of speech, is supreme.
The cinema can speak only in neologisms.”

Metz, *Film Language*, p69

“The cinema: language or language system?”

Next steps...

- Can we examine the development of structures just as we can in language?
- What realisational possibilities does this material offer for creating structures?
- What semiotic modes can we find operating with this material?
- How much does the interpretation of non-language modes depend on our knowledge of linguistic modes?

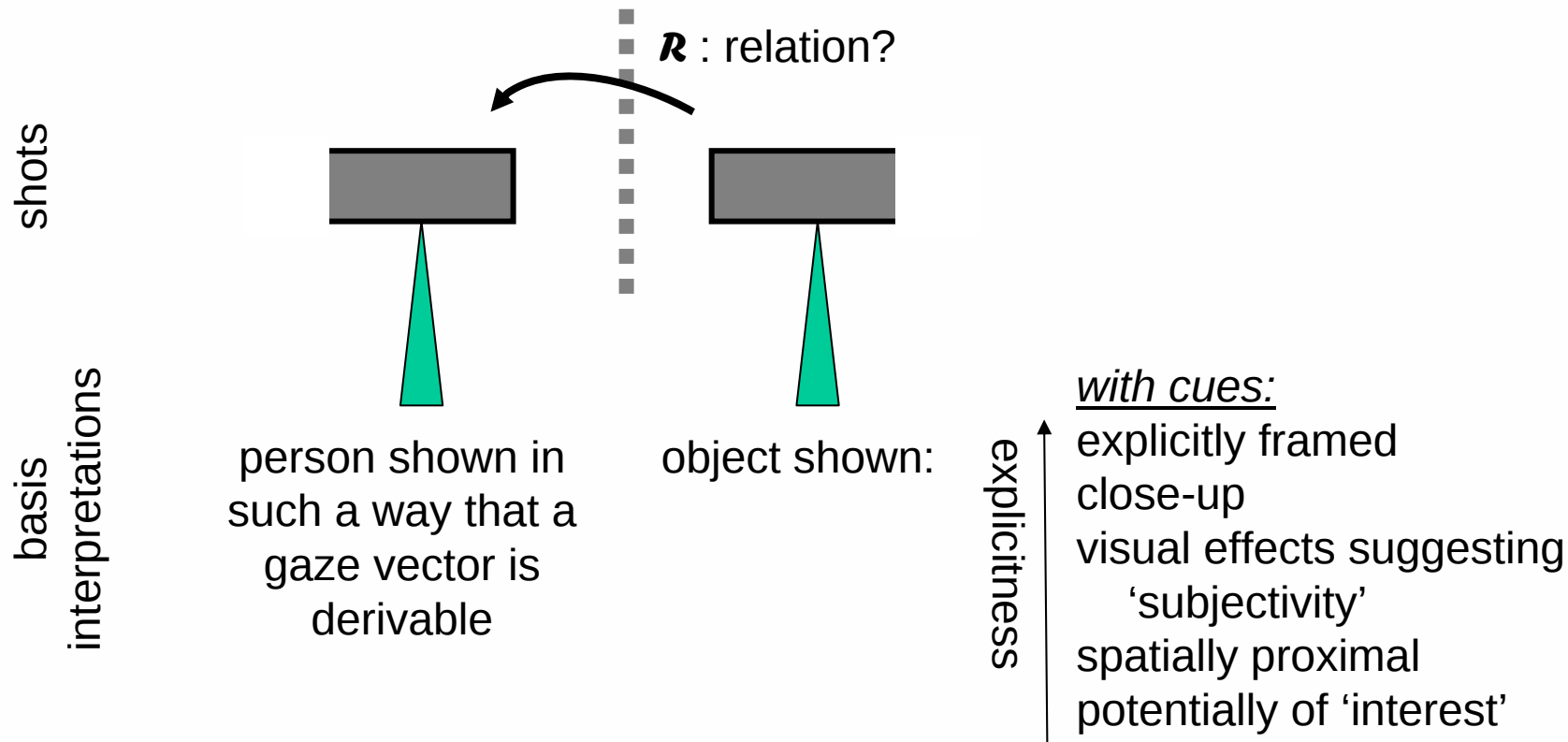
'Language' development

- We can also look at how particular 'idioms' develop, turning into 'constructions', and then perhaps into 'grammar' ...

Development: Three films...

- Lumière brothers, Auguste and Louis
 - Producing photographic plates, then cameras and films...
 - *Partie d'écarté* (1895)
- George Albert Smith
 - Producing films as an addition to lantern slide shows on scientific subjects, gypsy fortune tellers and light teas...
 - *Grandma's Reading Glass* (1900)
 - *Sick Kitten* (1903)

Development of filmic 'idioms'



More Questions

- Can we state types of contrasts and similarities to relate such constructions?
- Can systems of such 'idioms' be built up?
- How much of what we know about how verbal discourse works can be applied to such representations?
- To what extent do the possibilities of this semiotic extend what we know to be the case for other forms?

What kind of structure is this?

- discoursal not syntactic
- defeasible / abductive (Pierce) / nonmonotonic

Formal Discourse Semantics (Asher, Lascarides)

- The defeasible rules of interpretation can be applied:
 - To uncover interpretations
 - To explain how interpretation works so flexibly
 - But also, how interpretation is sensibly *constrained*.

A complex example

Formal Discourse Semantics (Asher, Lascarides)

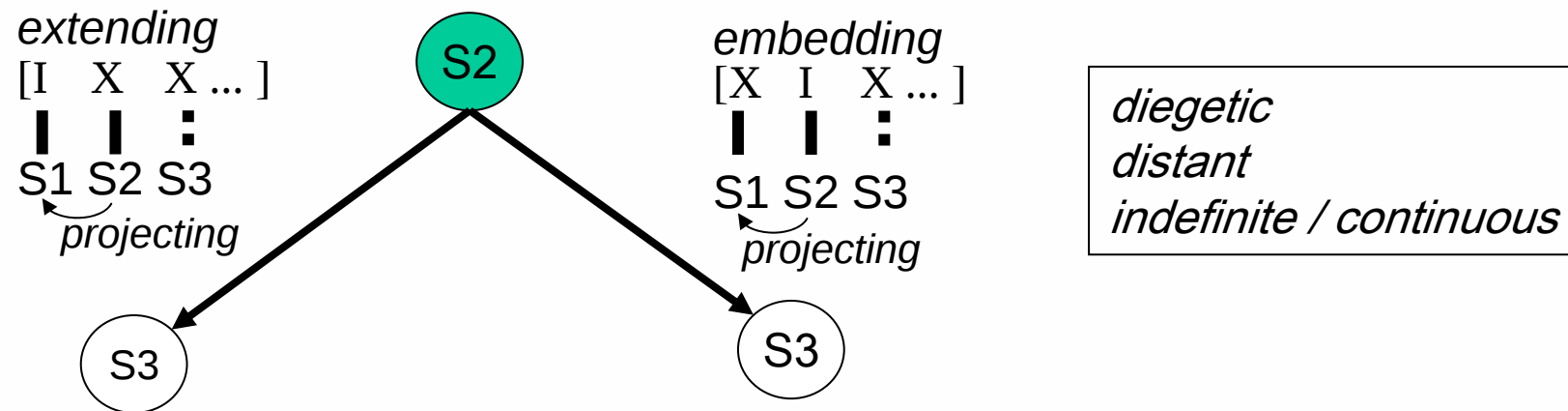
- The defeasible rules of interpretation can be applied:
 - To uncover interpretations
 - To explain how interpretation works so flexibly
 - But also, how interpretation is sensibly *constrained*.

A more complex example of interpretation in action

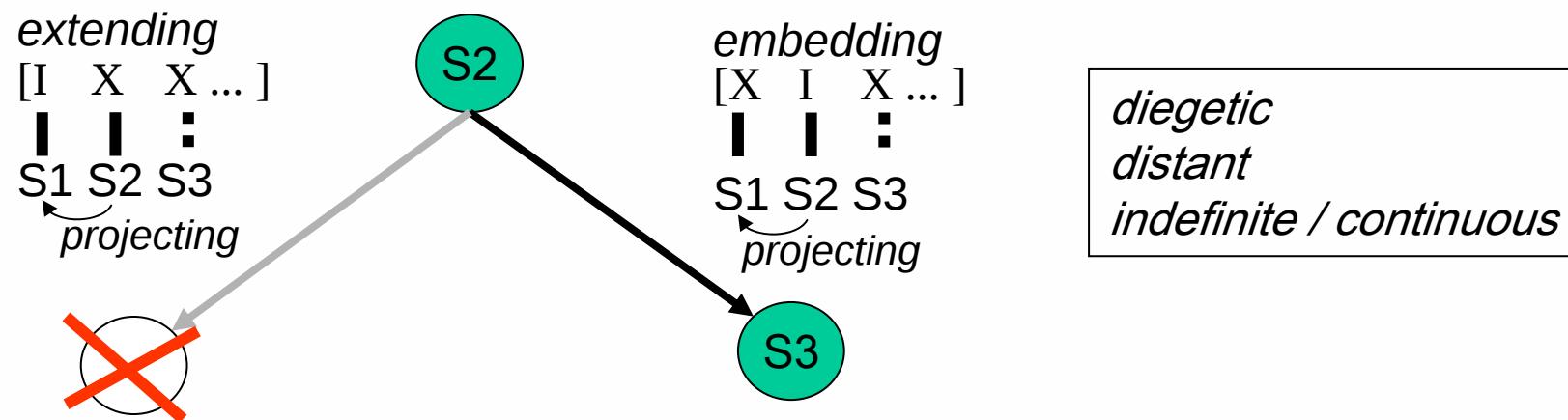
“Matrix Reloaded”



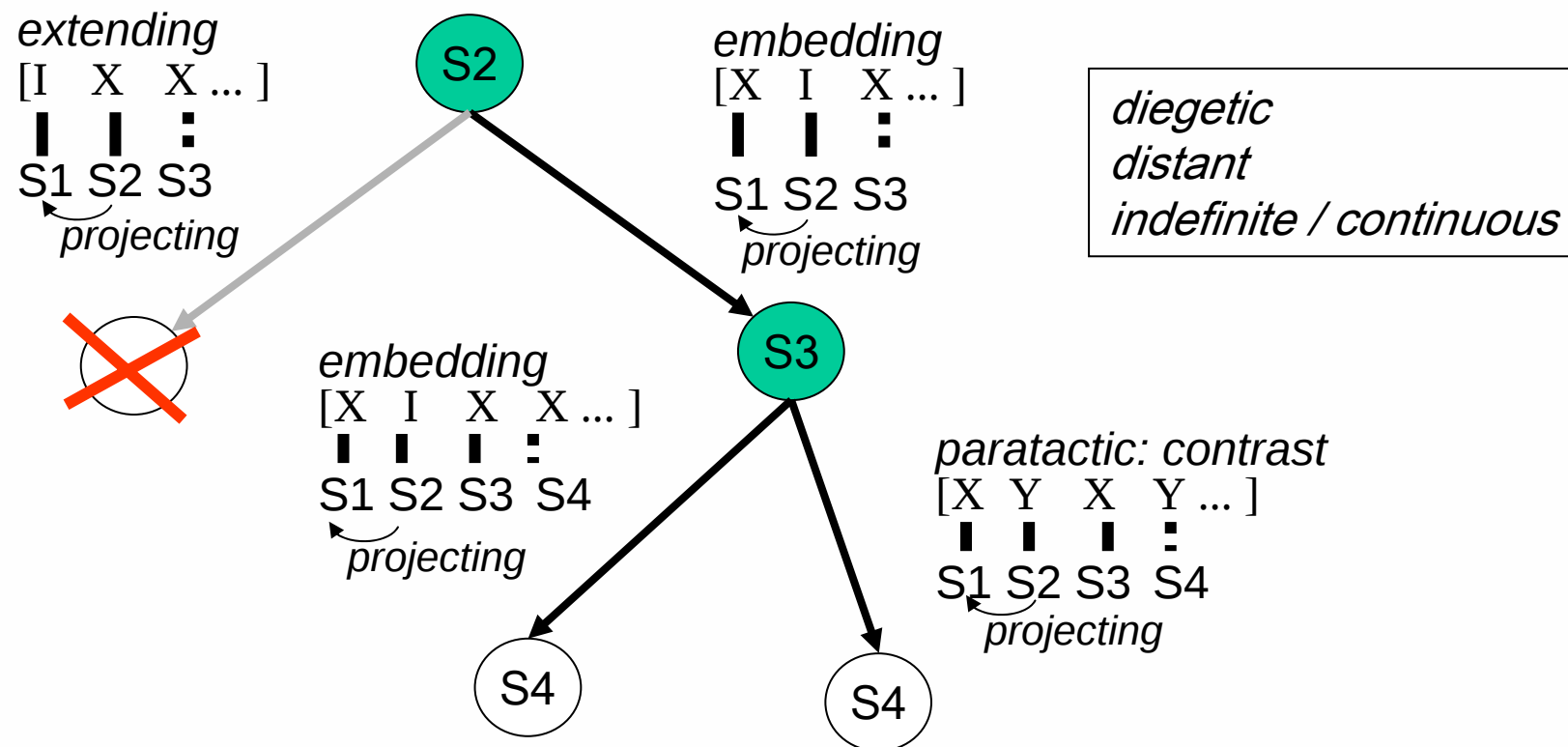
Matrix Reloaded



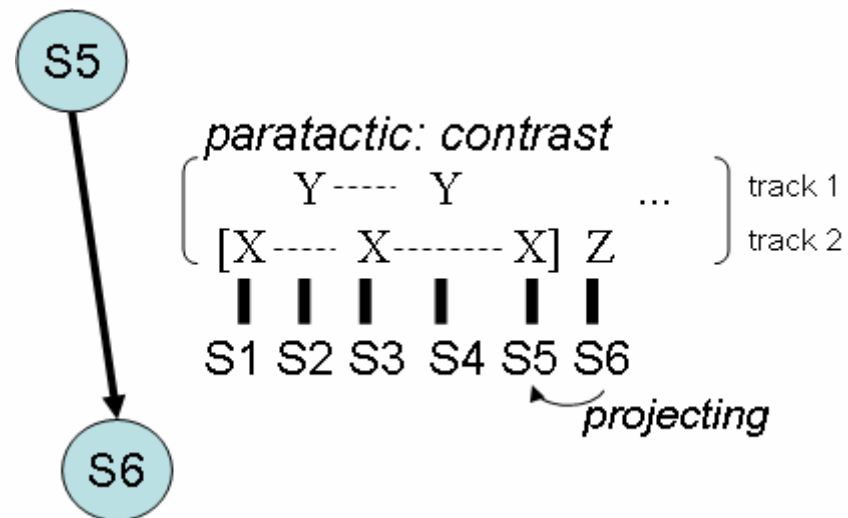
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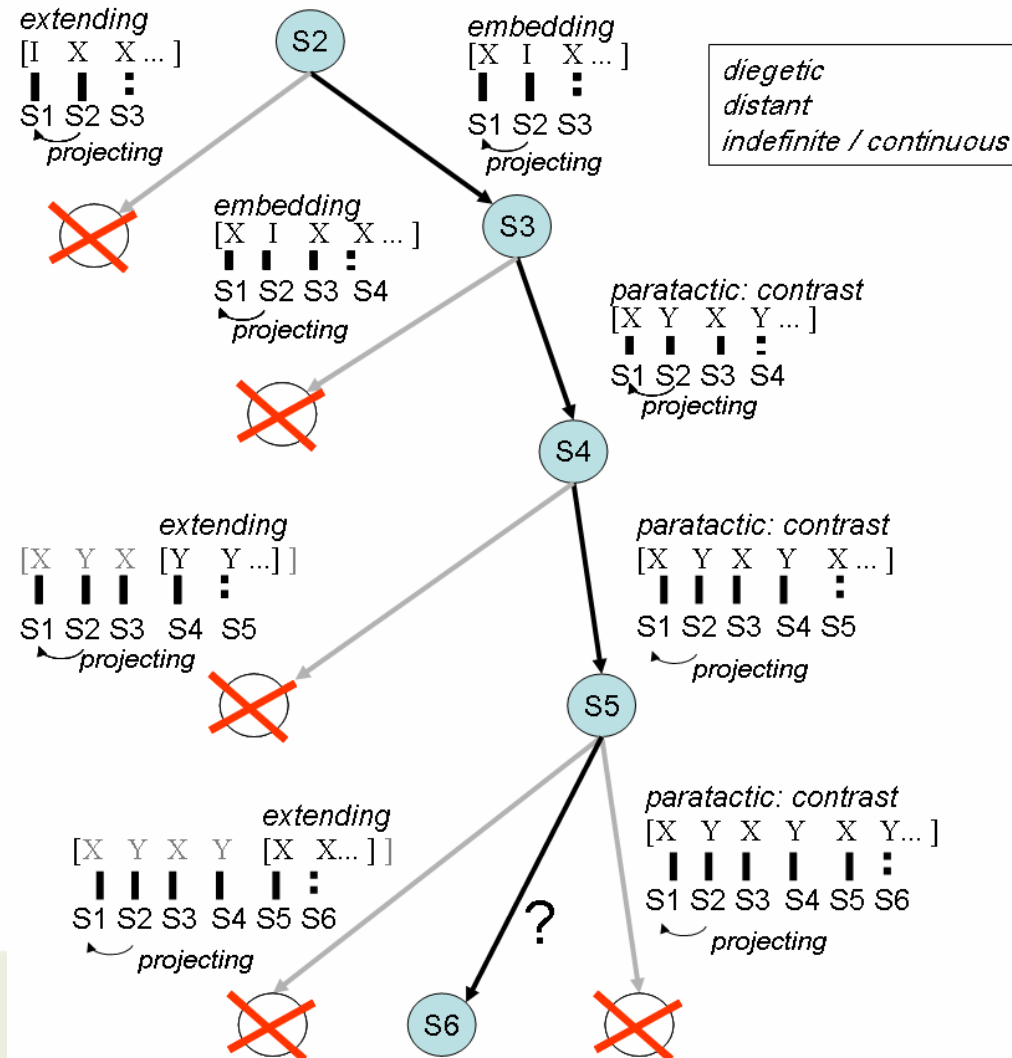
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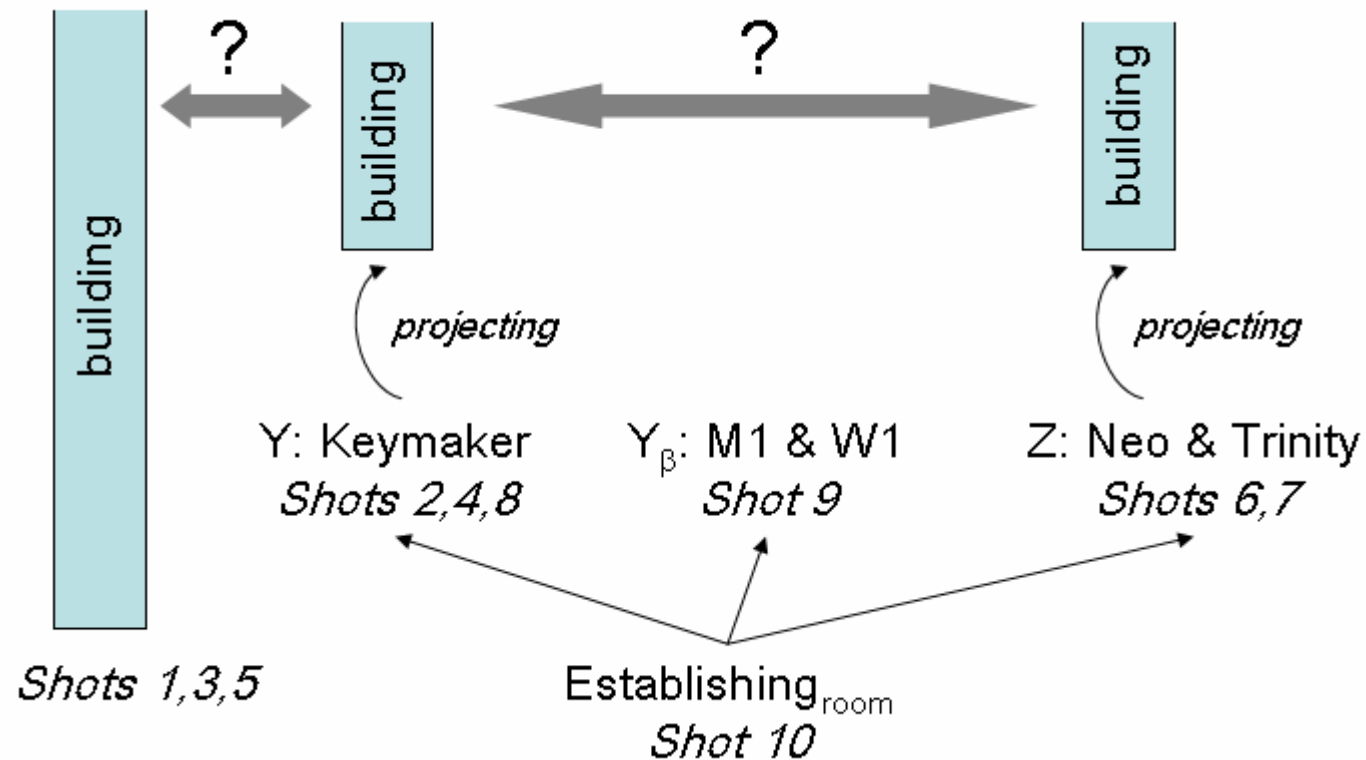
Matrix Reloaded



Matrix Reloaded

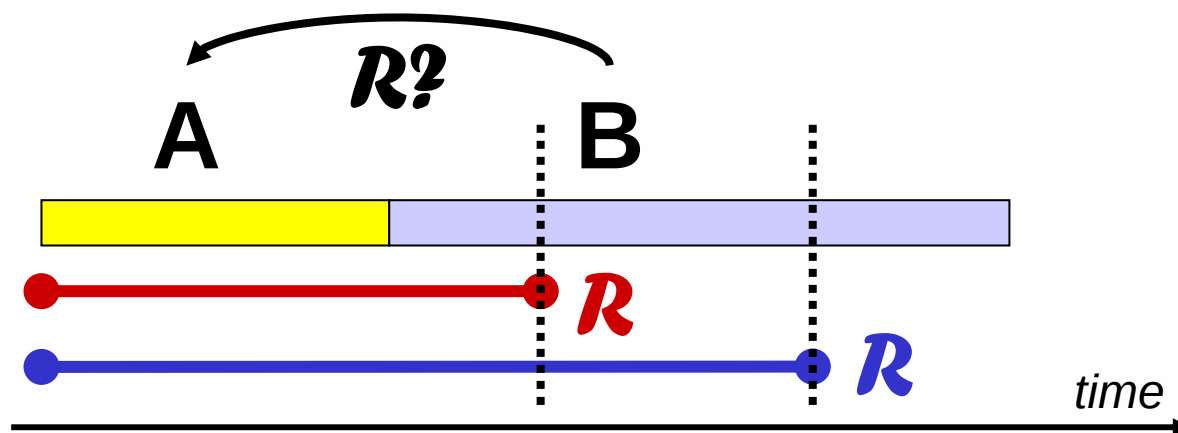


Controlled Uncertainty



Discourse interpretation

- The kind of relations possible are **elements** that may carry further structure / rhythm
- **Mutual interference** may be used for additional effect

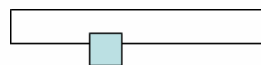


Next Steps...

- the semiotic mode of dynamic image flow may be constructed using other means as shots
- the kinds of constructions used continue to develop
 - and in ways that draw on the possibilities of the material
 - which may differ from the material possibilities of verbal language

Next steps...

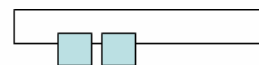
- Continuous variation: semiotically relevant
 - relations to interpersonal metafunction?
- Fluid sequences: new types of 'structure'?



(a)



(b)



(c)



(d)

Bringing it all together: combining codes and modes

Review of Semiotic Modes

Three new semiotic
modes seen so far

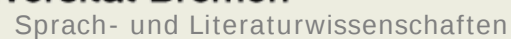


page-flow

text-flow



image-flow



Page-flow

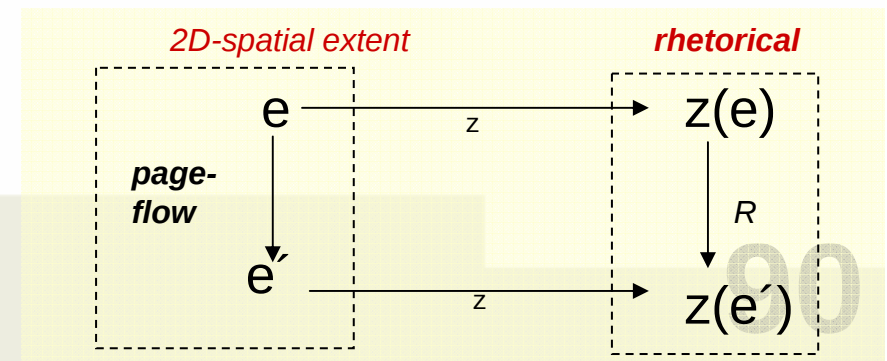
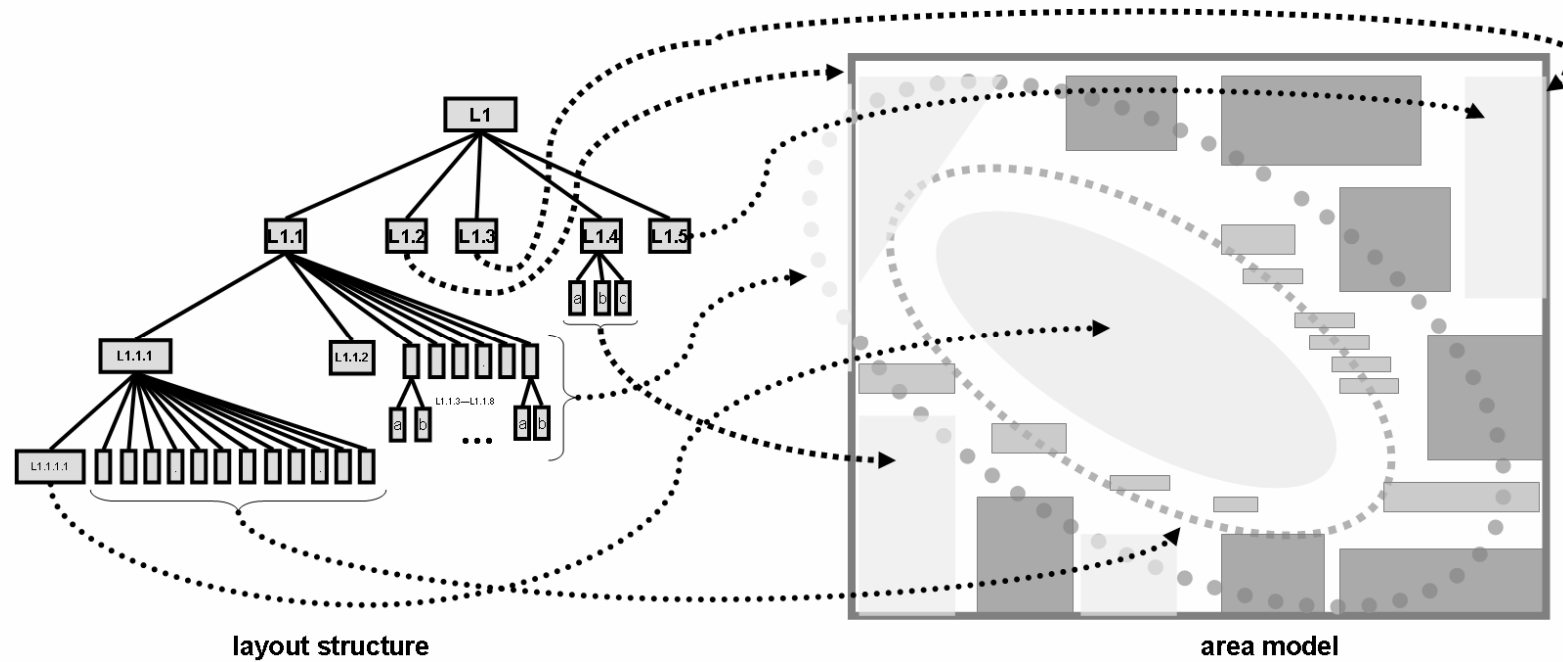
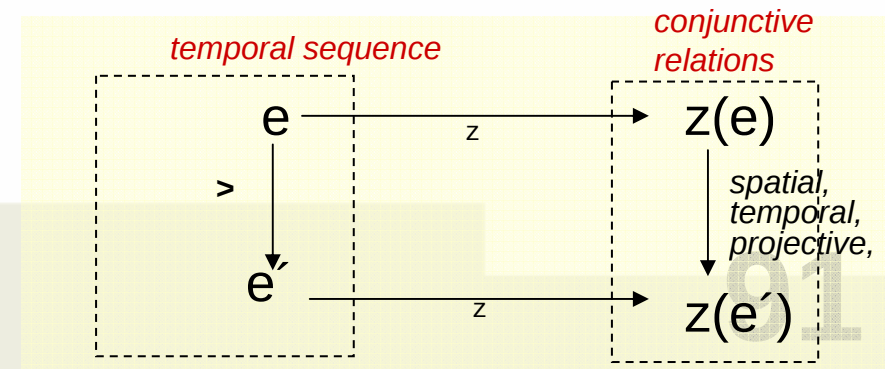
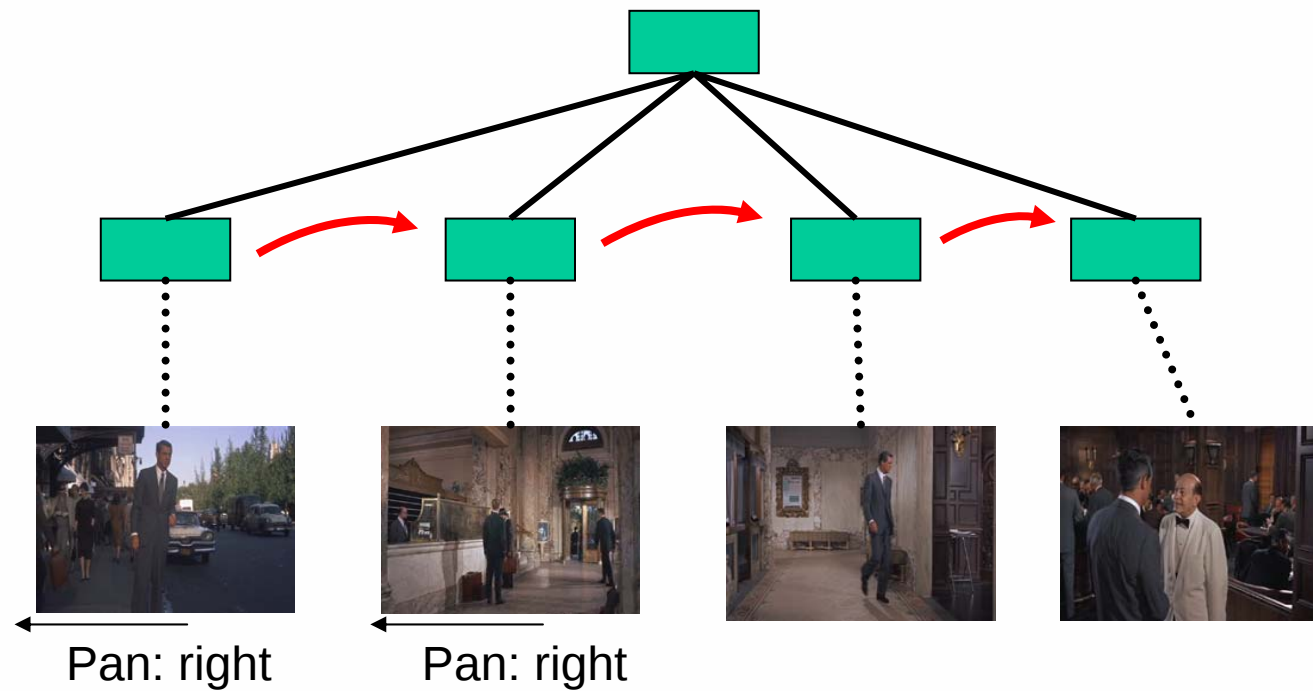
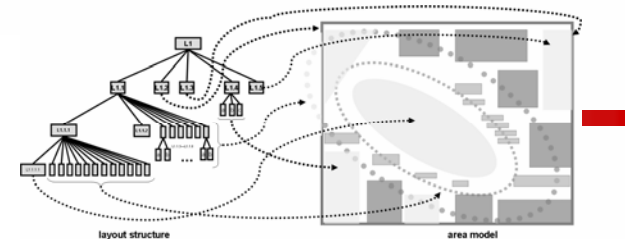


Image-flow



page-flow



text-flow

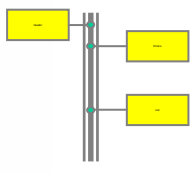
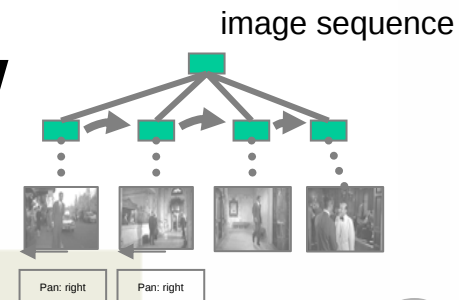


image-flow



More organisations...

DOONESBURY

by Garry Trudeau

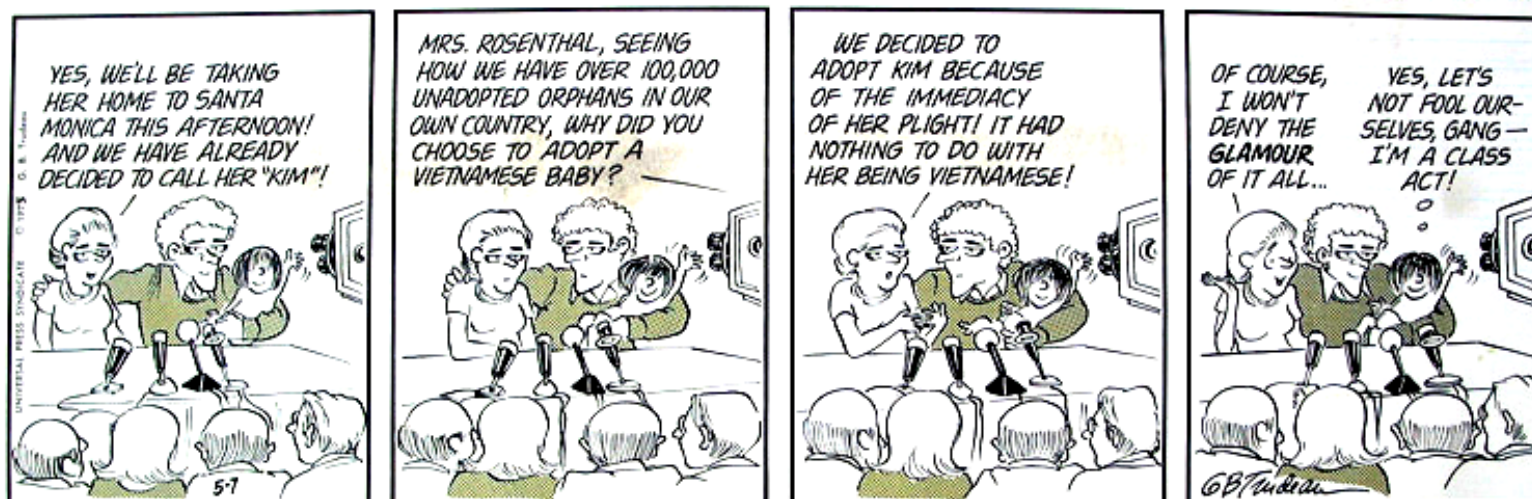


Photo © Eric Agena, www.comicstripfan.com

Garry Trudeau, May 7, 1975

Image-flow

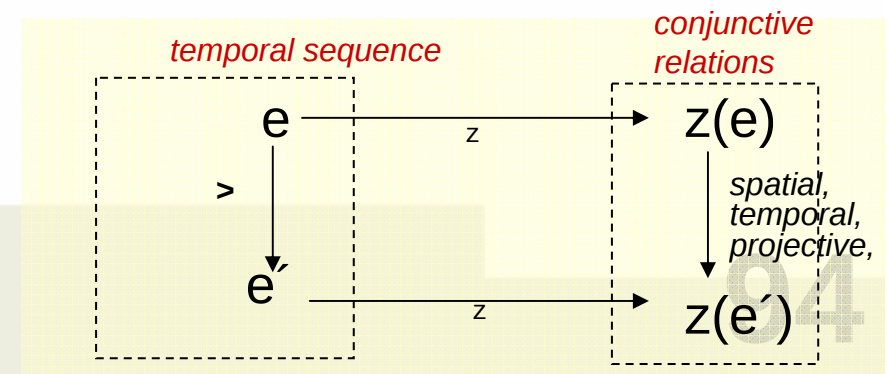
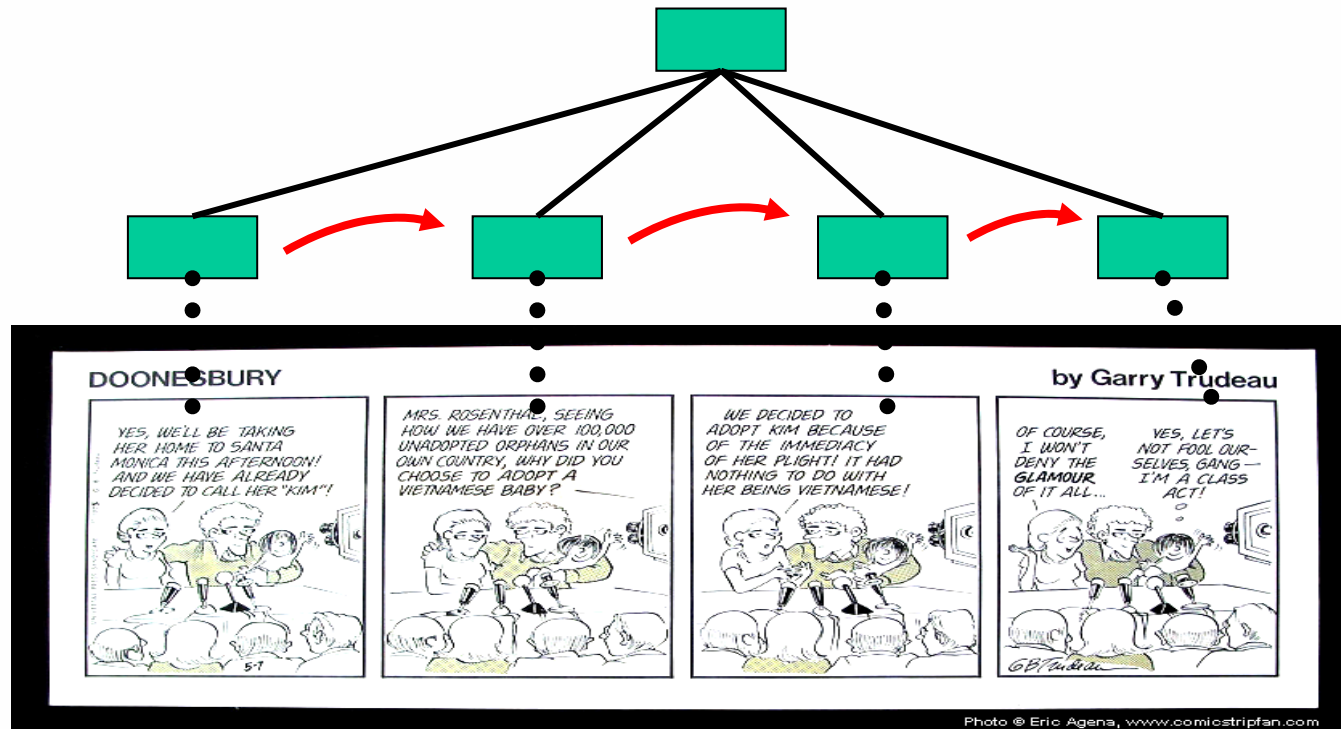
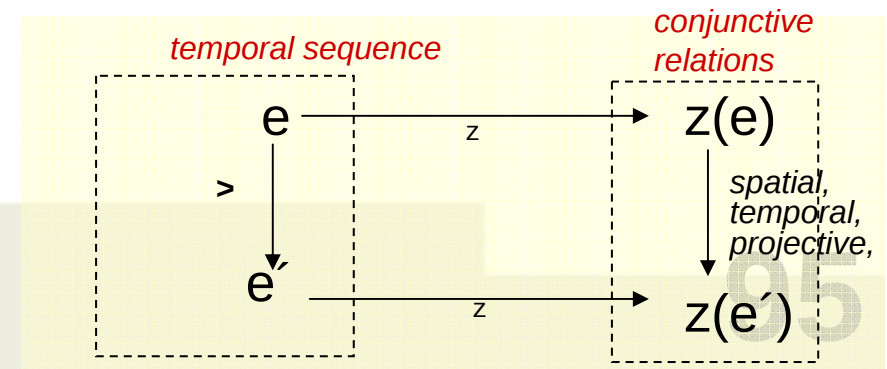
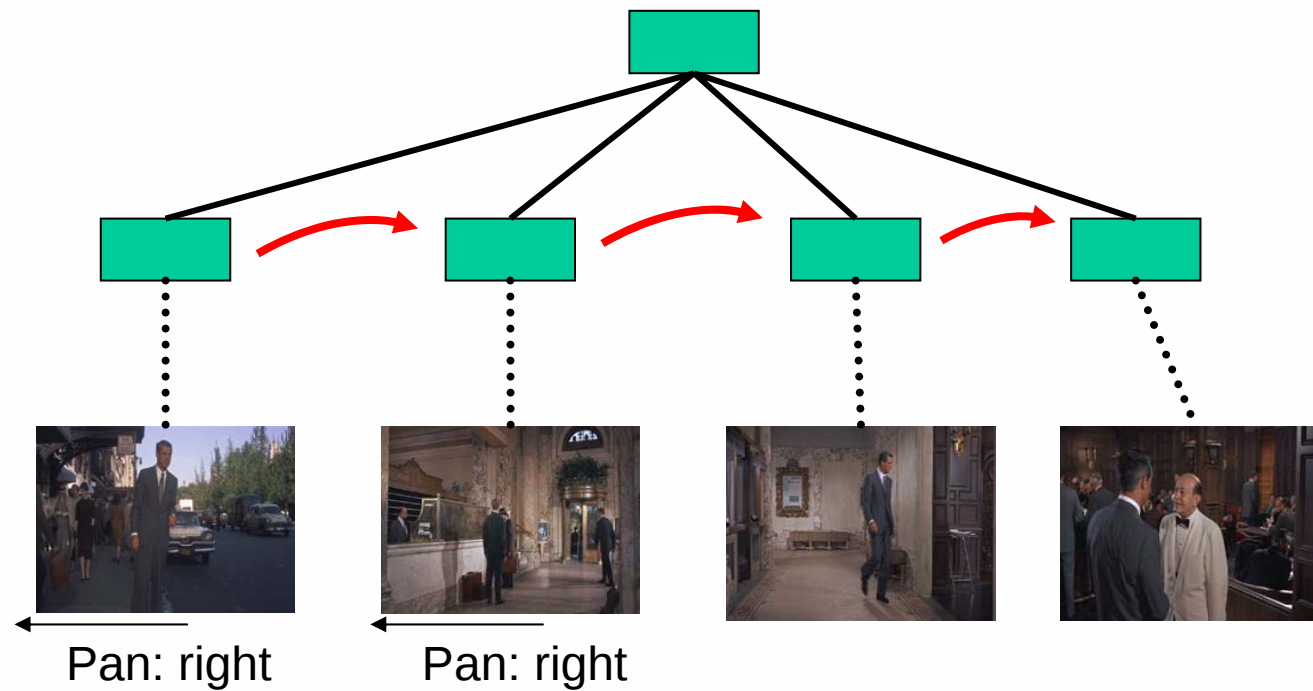


Image-flow (dynamic)



Combinations...

- We also find examples of image-flow in other artefacts that we have so far...

Combining modes...



ID FACT FILE

Size: Larger than any gull

ADULT: White, black wing-tips, yellow nape

JUVENILE: Grey, gradually becoming white over 5 years

BILL: Dagger-like

IN FLIGHT: Cigar-shaped with long, narrow, black-tipped wings

VOICE: Usually silent, growling *urr* when nesting

LOOKALIKES: Skuas, Gulls and Terns

(pp.123-139)



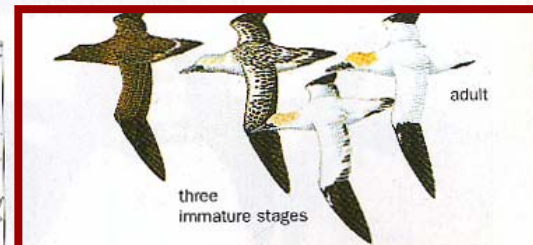
Gannet

Sula bassana

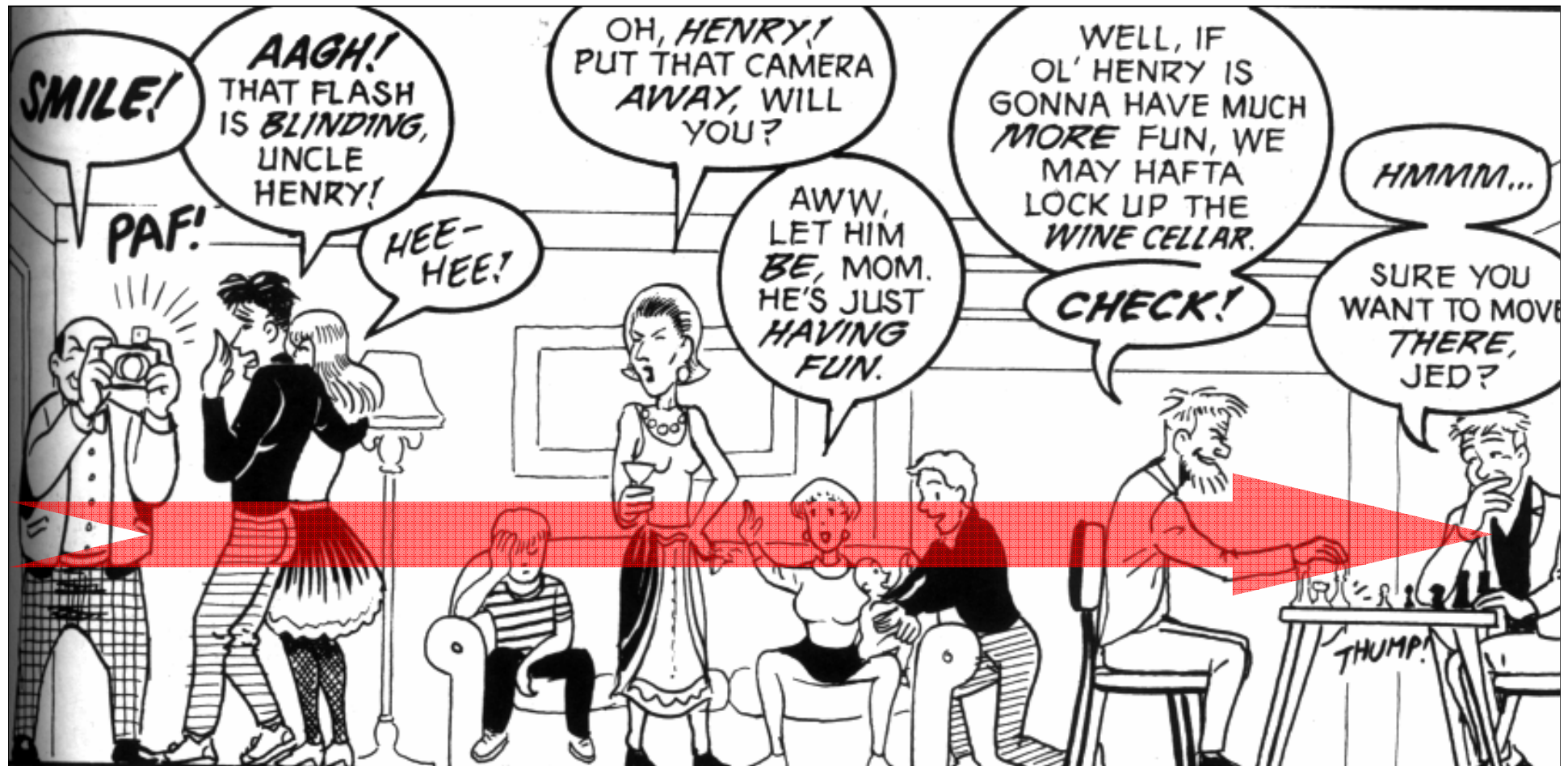
Birds of the open ocean, Gannets breed on small islands off the NW coast of Europe. They move away from land after nesting to winter at sea. The young migrate south as far as W Africa. Gannets feed on fish by plunging from 25 m, and nest in large, noisy colonies. The nest is a pile of seaweed. A single egg is incubated for 44 days. The young bird is fed by both parents and flies after 90 days.



adults at breeding colony



Example...



Scott McCloud (1993, p95)

Space is (or can be) Time

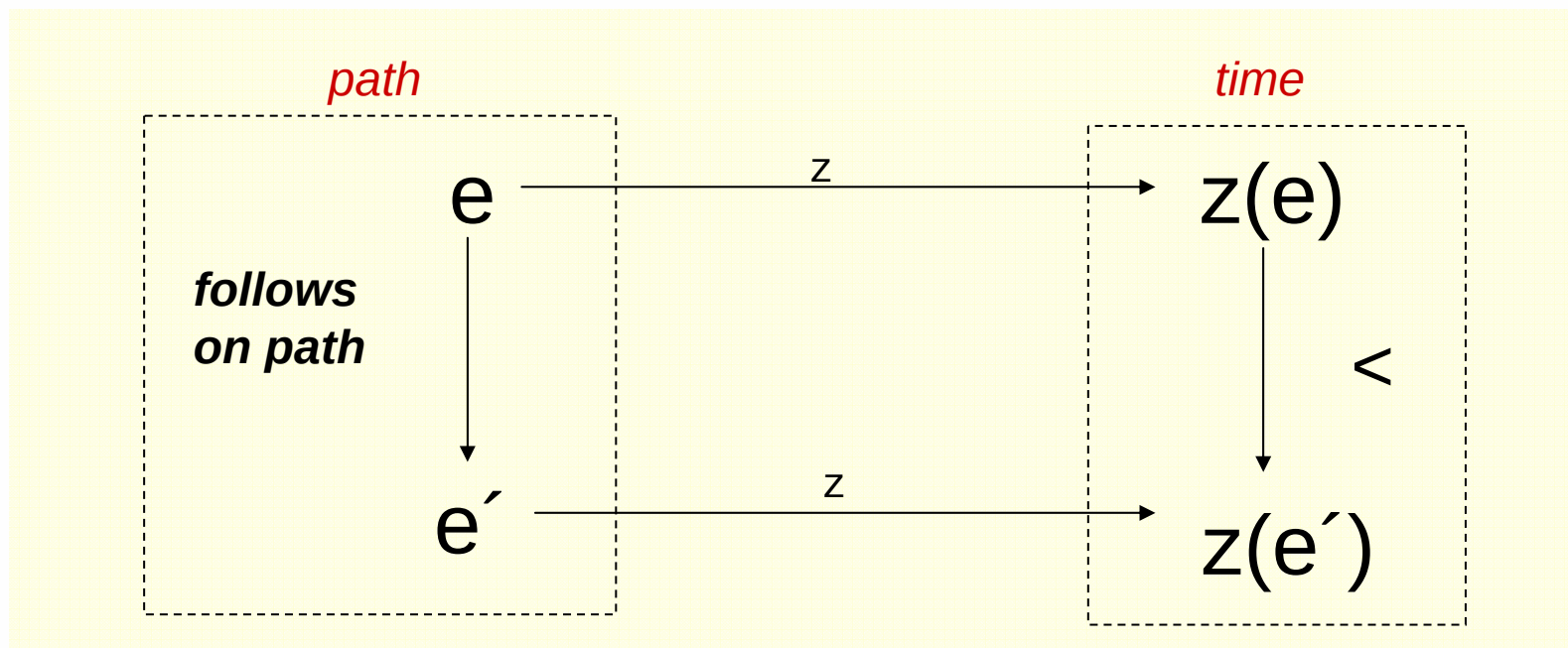


Relating distinct domains

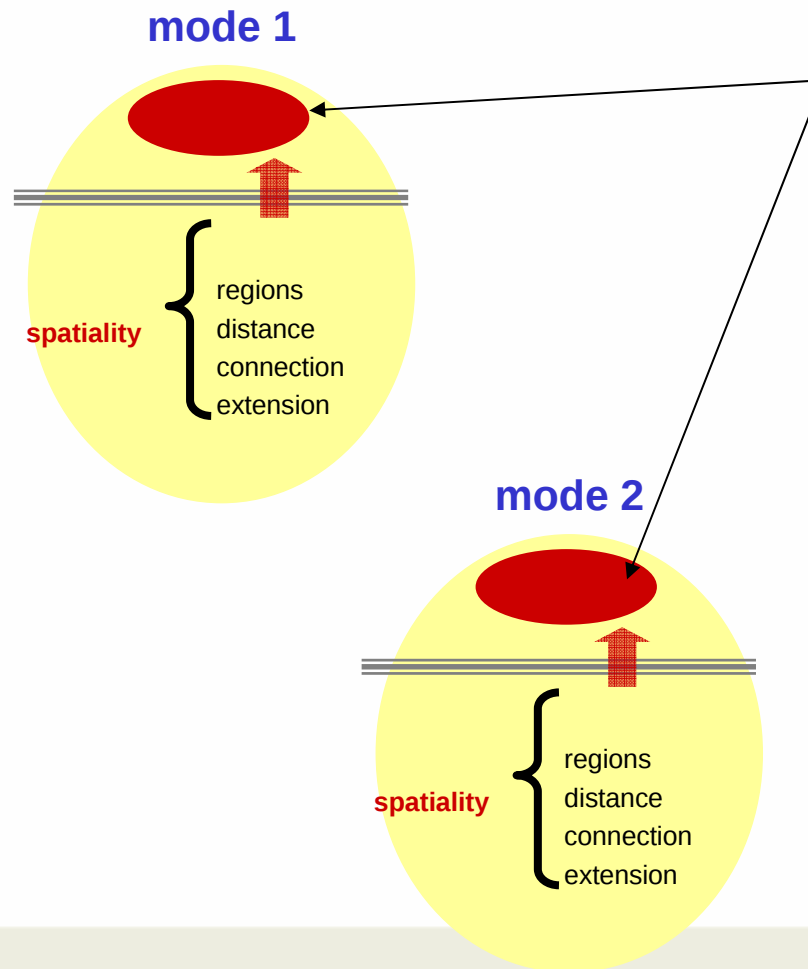
Go along the road **until the church**.

After the church turn left.

temporal relations



Multiple modes



- multiple modes correspond to multiple **discourses**
- the **potential** describing the possibilities of that discourse corresponds approximately to the semiotic notion of **code**

Questions of semantics

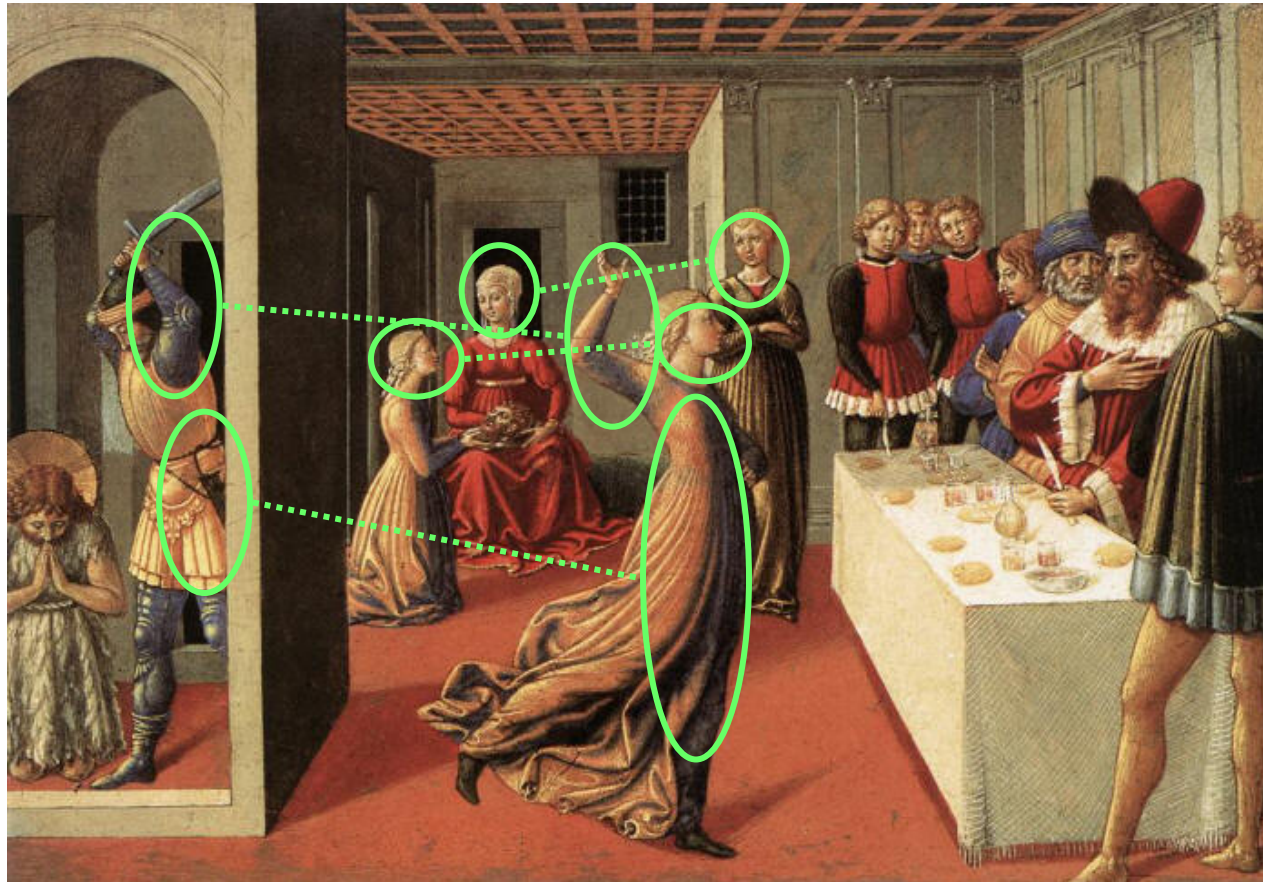
- Individual semiotic modes may rely on differing 'semantic' systems for constructing meaning

Three modes seen so far

- text-flow *textual organisation*
- page-flow *rhetorical structure*
- image-flow *conjunctive relations*

Examples of static-dynamic carry-over

Meaning-carrying resources: similarity-as-similarity



Benozzo Gozzoli

separation of
similar
modes?

Painter: focalization in picture narratives

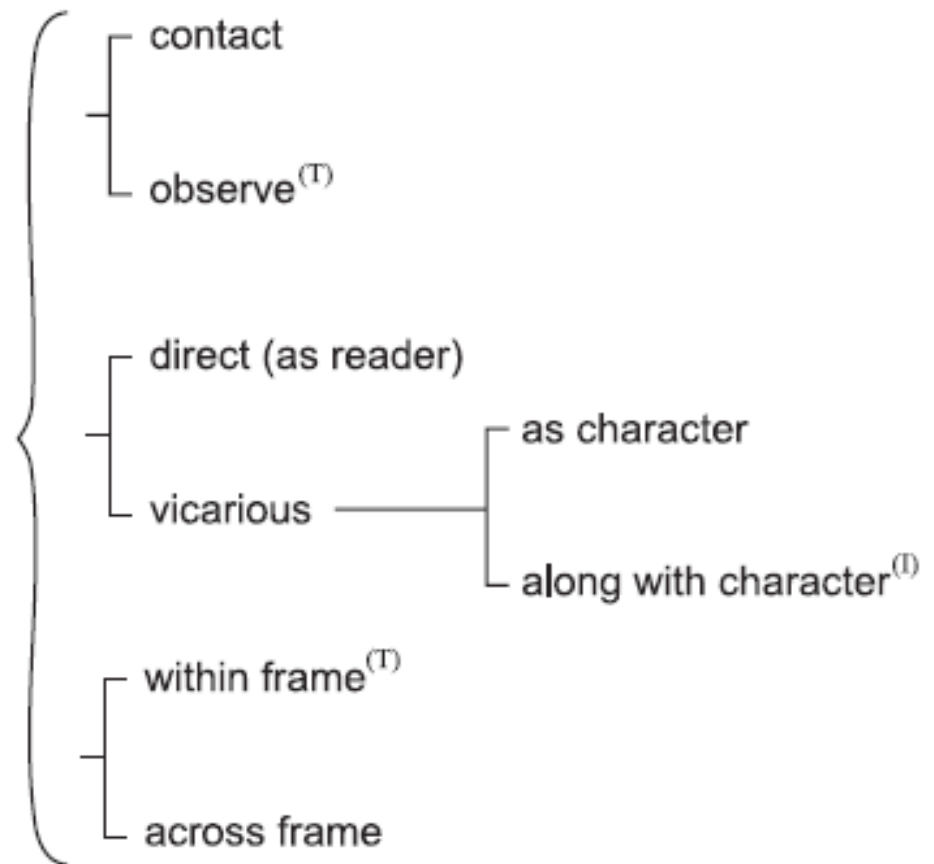


Figure 2.6 Visual focalization

Painter: pacing in picture narratives

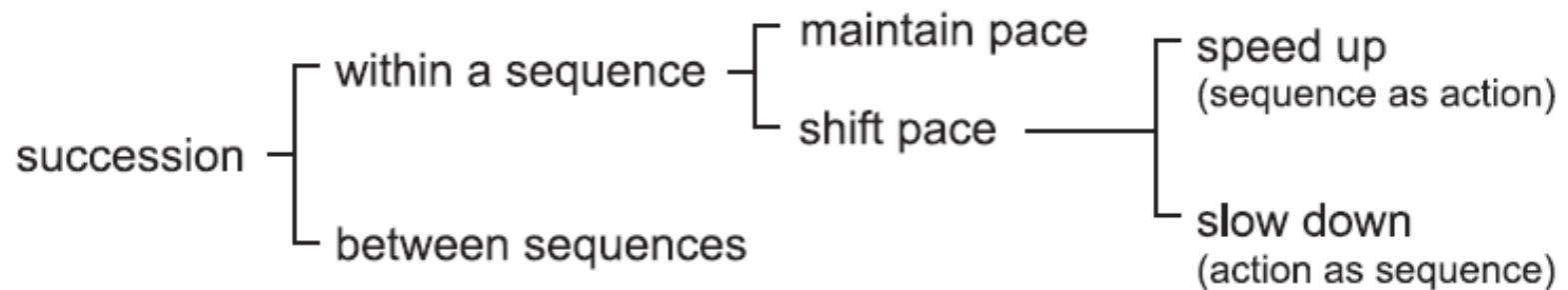
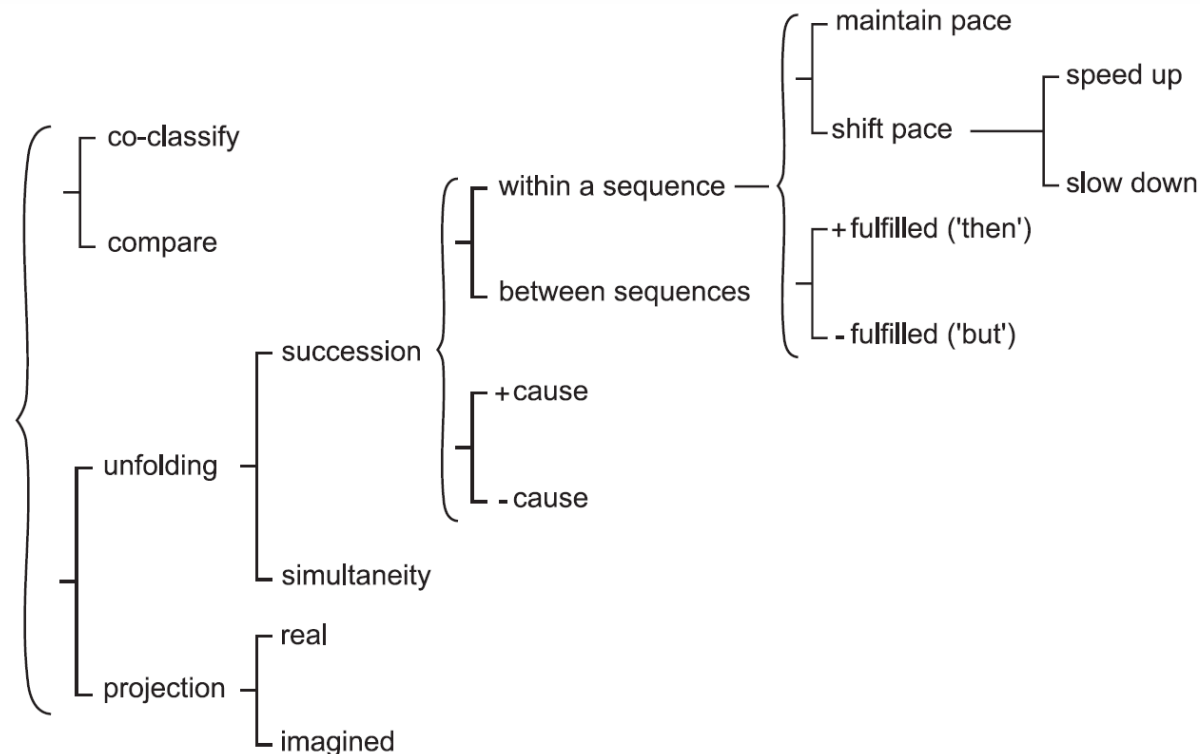


Figure 2.8 Options for temporal relations of succession

Differences between static and dynamic image-flow

“Even more readily than the relation of temporal succession, juxtaposed visuals afford the relation of simultaneity. As long as the images are available on the same or facing pages, they can instantaneously present more than one action at once.” (Painter, 2007)

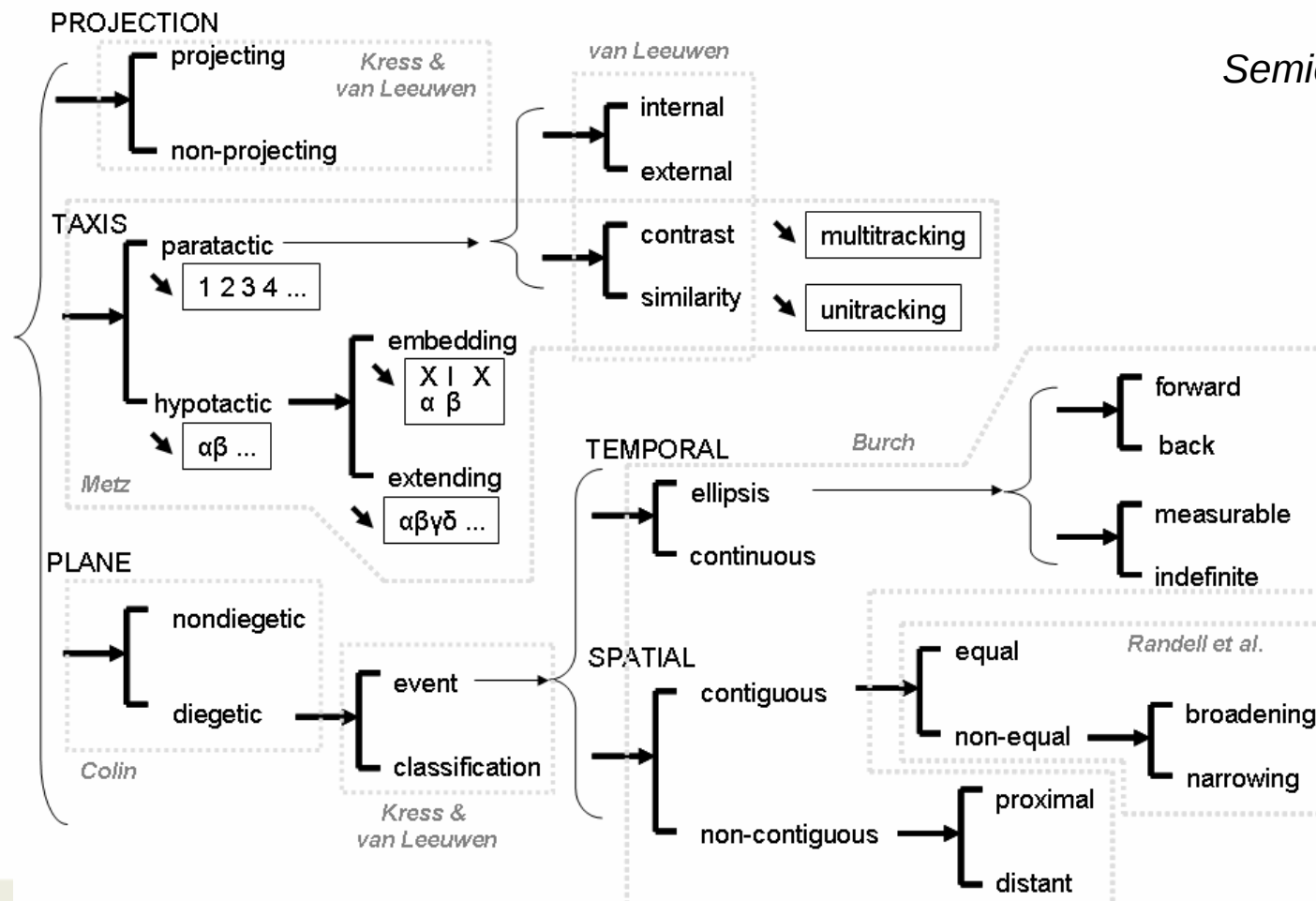


Differences between verbal language and image-flow

“In looking at the logico-semantic meanings carried by sequences of images within these narratives, we find both expansion and projection relations represented and also that, perhaps even more economically than language, a number of relations can be carried simultaneously.”
(Painter, 2007)

Filmic Paradigmatic Organisation

Bateman
Semiotica 2007

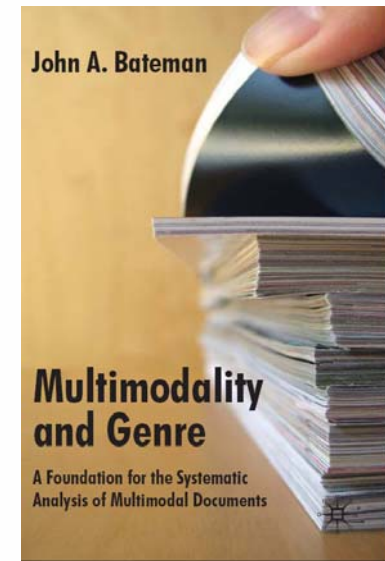


Conclusion

- Pulling apart semiotic modes, made up of realisations, 'grammar' and discourse, appears to offer an interesting way of finding similarities across a broader range of artefacts
- Needs a lot more work!

More Materials

- 2D Static Artefacts
 - Palgrave MacMillan
2008



- 2D Dynamic Artefacts:

Bateman, J. (2007). "Towards a *grande paradigmatique* of film: Christian Metz Reloaded":
Semiotica Dec 2007

Announcements

- Doctoral grants for work on 'Textuality and Film' University of Bremen (announcement on web imminent)
- Postdoctoral position on 'Textuality and Film': theory, teaching and organisation
- Researcher position on Film, Text, Discourse: position to be announced imminently: requirement: formal analysis not an enemy!