Constraining Cognitive Interpretation by Tracking Filmic Cohesive Chains

Chiaoi Tseng & John Bateman

University of Bremen

Universität Bremen
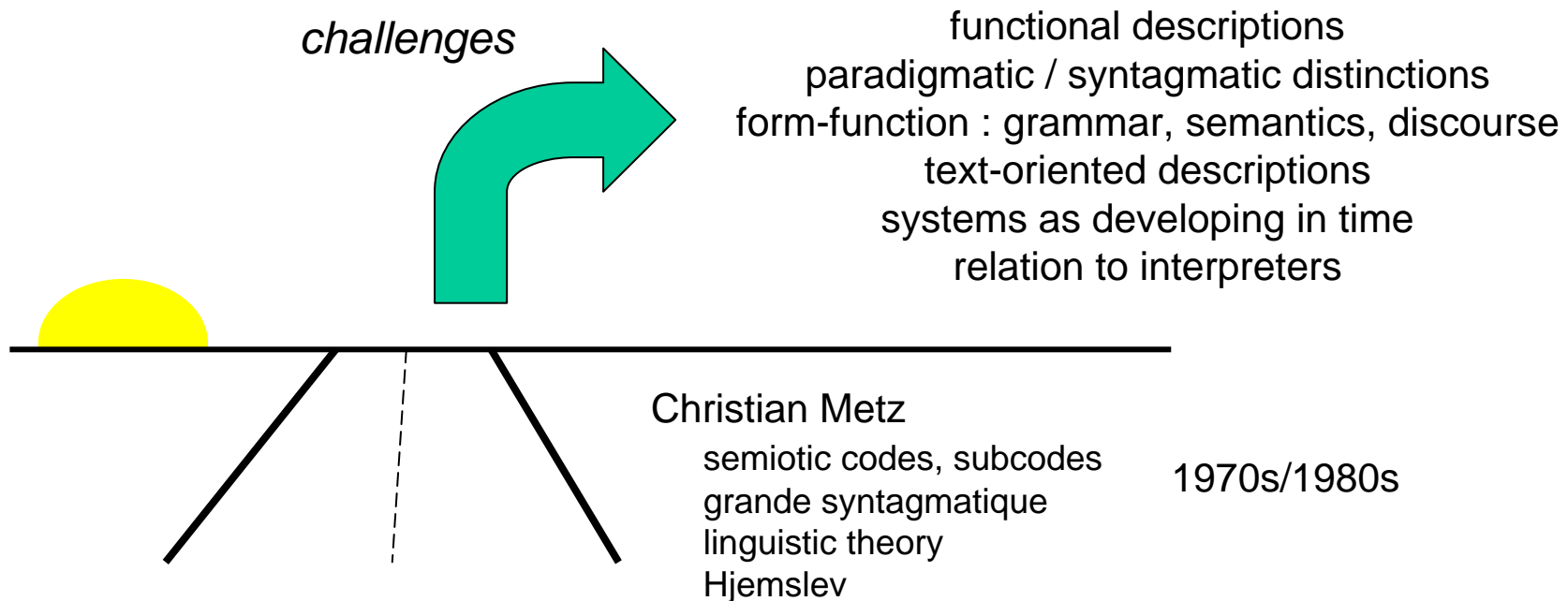
Outline of Talk

- Theoretical orientation, methods, goals:
  where we are coming from

- Discourse and Film: selected areas of discourse 'work'

- Towards empirical investigation

  - Cohesive Analysis of *Memento*

  - Experimental manipulation

  - Experimental results

- Conclusion, outlook, questions for discussion

challenges

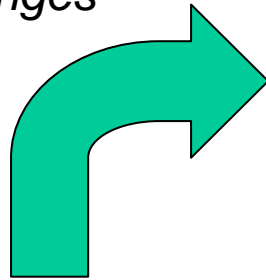functional descriptions
paradigmatic / syntagmatic distinctions
form-function : grammar, semantics, discourse
text-oriented descriptions
systems as developing in time
relation to interpreters

Christian Metz

semiotic codes, subcodes
grande syntagmatique
linguistic theory
Hjemslev

1970s/1980s

Universität Bremen
Visuals, Film, Discourse
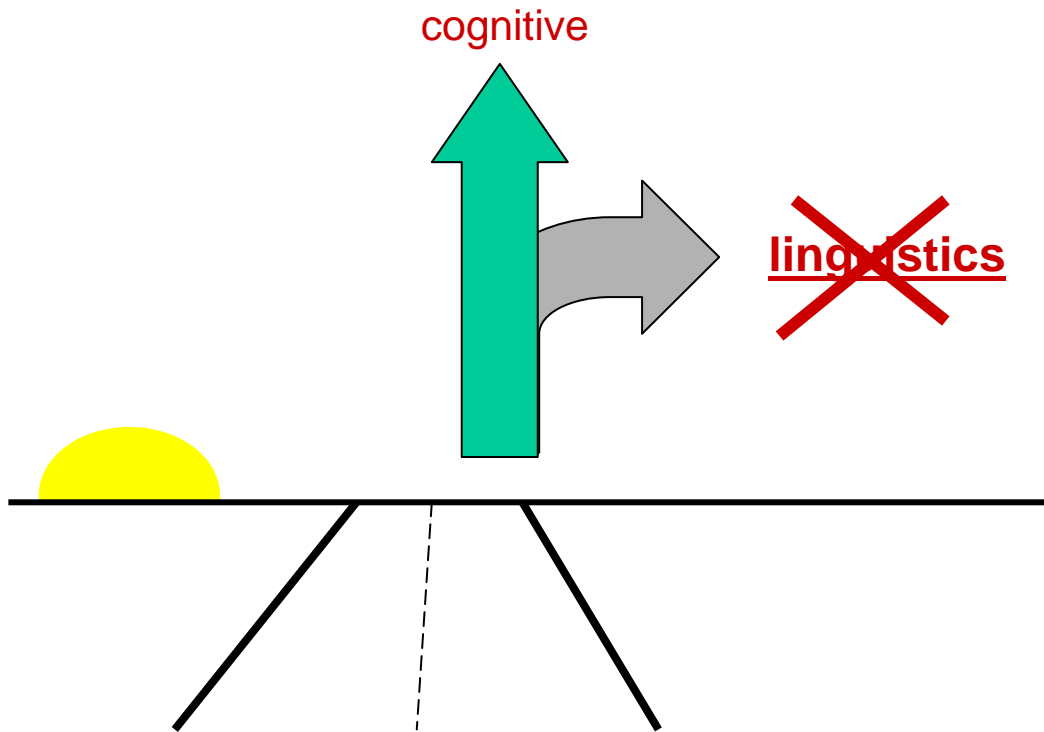
3

1980s: Chomskyan linguistics

challenges

~~functional descriptions~~
~~paradigmatic / syntagmatic distinctions~~
form-function : grammar, semantics, ~~discourse~~
~~text-oriented descriptions~~
~~systems as developing in time~~
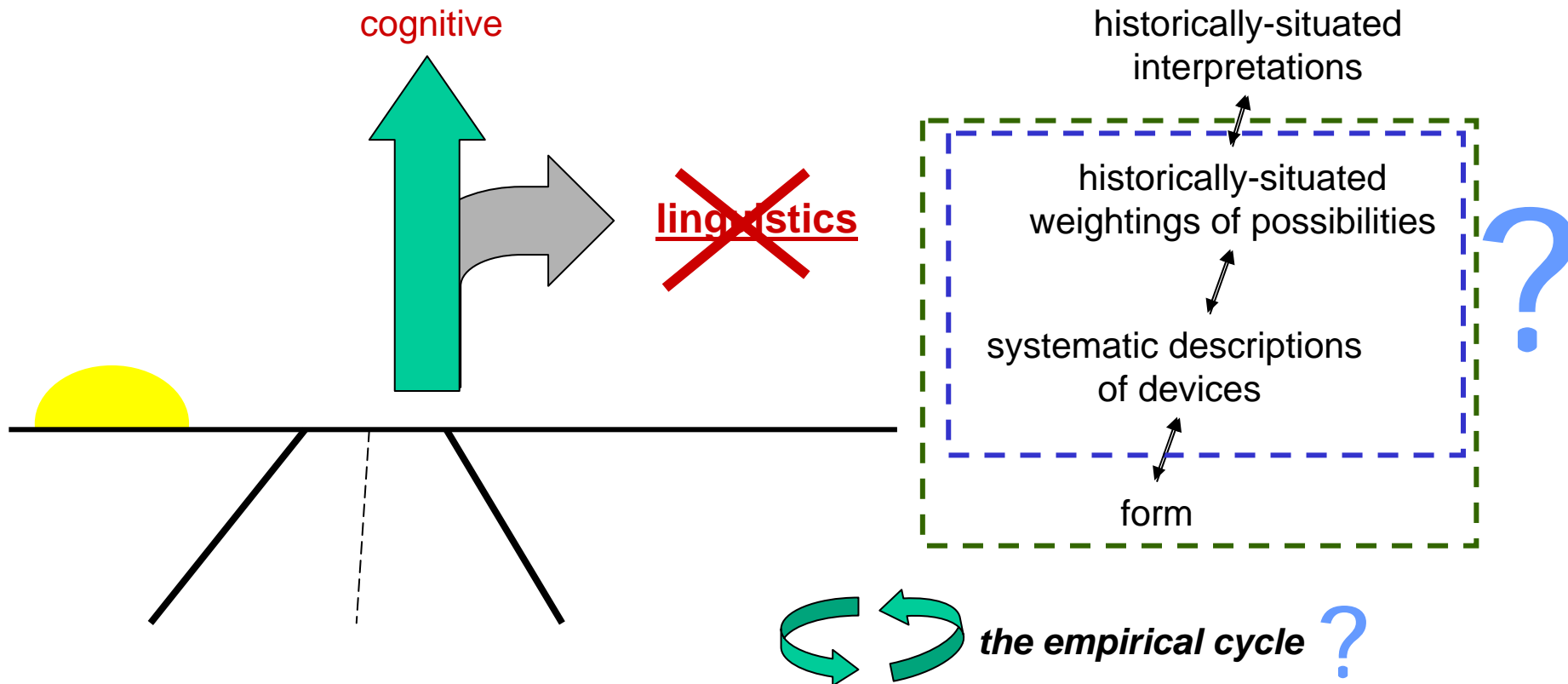relation to interpreters: cognitive

Christian Metz
semiotic codes, subcodes
grande syntagmatique
linguistic theory
Hjemslev

The rift between film studies and linguistically-inspired approaches

cognitive

linguistics

Universität Bremen
Visuals, Film, Discourse

cognitive

linguistics

historically-situated interpretations

historically-situated weightings of possibilities

systematic descriptions of devices

form

?

the empirical cycle ?

1980s: Chomskyan linguistics

challenges

~~functional descriptions~~
~~paradigmatic / syntagmatic distinctions~~
form-function : grammar, semantics, ~~discourse~~
~~text-oriented descriptions~~
~~systems as developing in time~~
relation to interpreters: cognitive

Christian Metz

semiotic codes, subcodes
grande syntagmatique
linguistic theory
Hjemslev

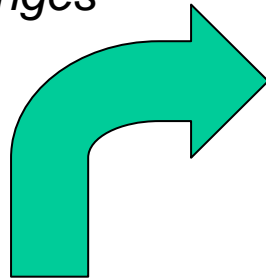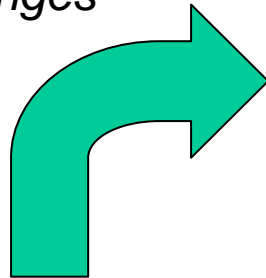# The rift between film studies and linguistically-inspired approaches

1980-2000s: Functional linguistics

challenges

functional descriptions
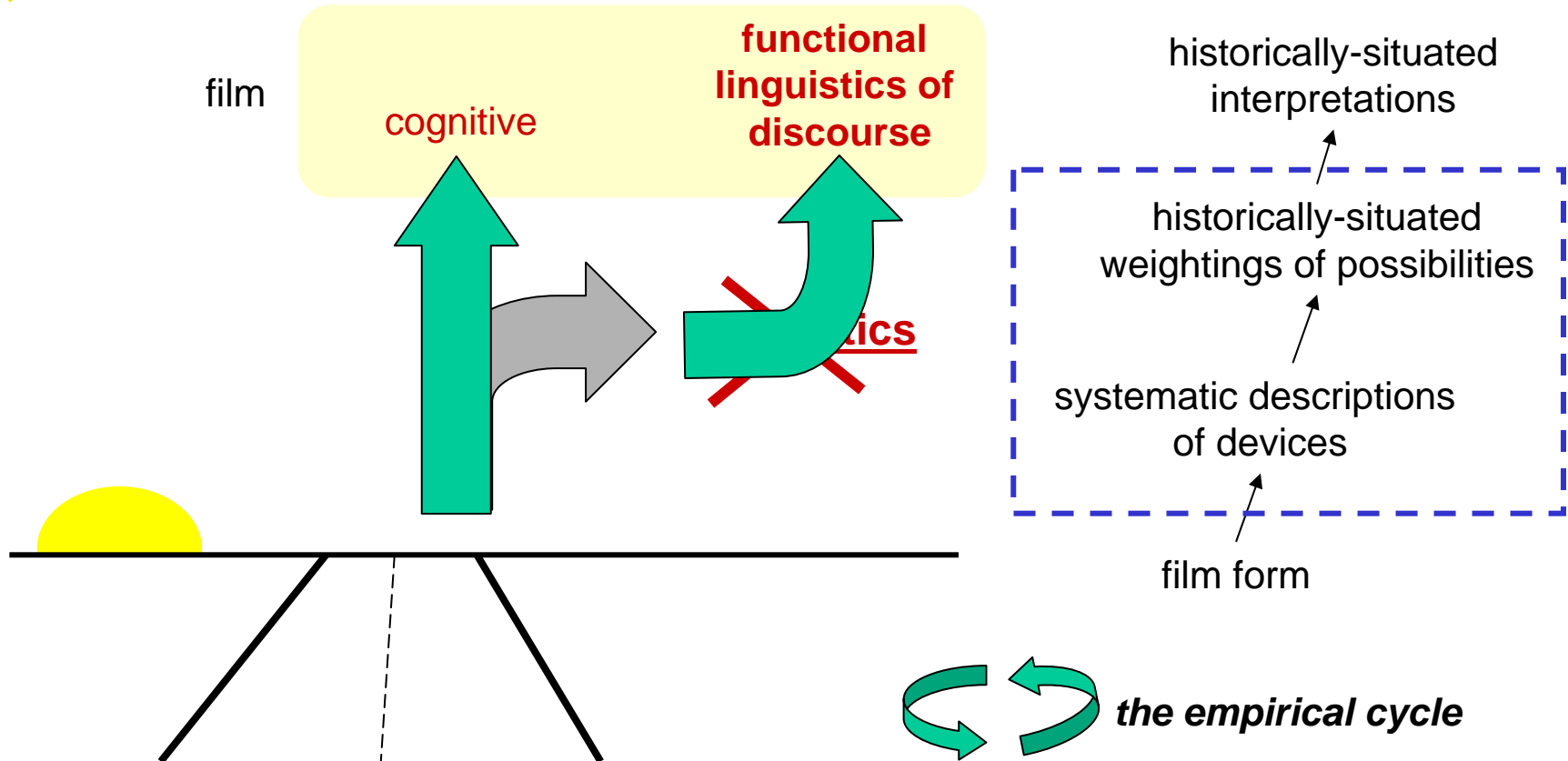paradigmatic / syntagmatic distinctions
form-function : grammar, semantics, discourse
text-oriented descriptions
systems as developing in time
relation to interpreters: ~~cognitive~~

Michel Colin (1989):

"In contrast to the generative theory—which . . . 'lacks a consideration of discourse'—a 'generative semiology' of film must have as its object to account for film as discourse."

The rift repaired?

film

cognitive

functional linguistics of discourse

historically-situated interpretations

historically-situated weightings of possibilities

systematic descriptions of devices

film form

the empirical cycle

Universität Bremen
Visuals, Film, Discourse
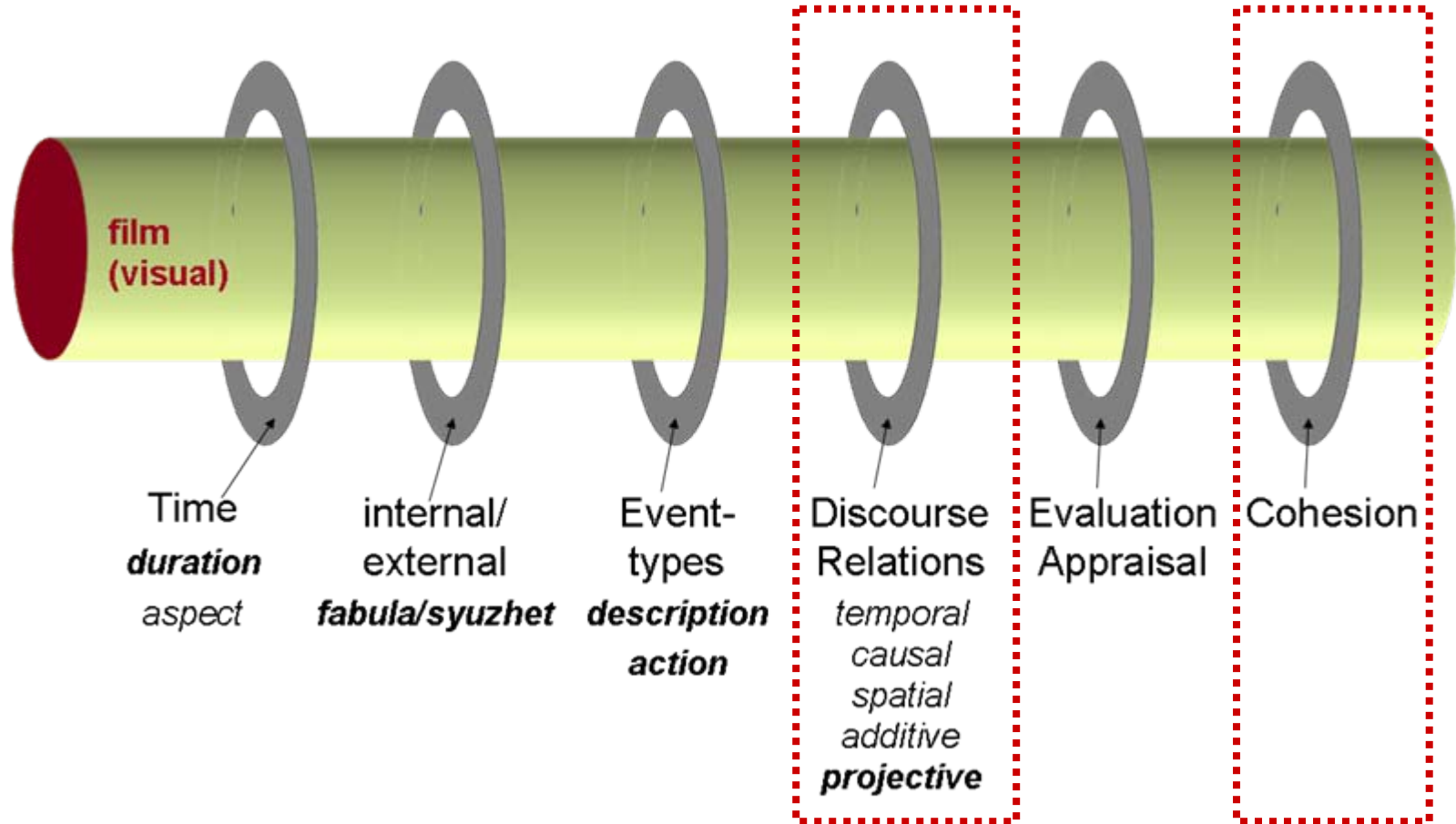
Method

- Characterising functionally-relevant distinctions potentially relevant for film as **paradigmatic** networks of choice

- Drawing these from areas we know from functional linguistics are operative for **discourse construction**

- Specifying the **filmic devices** by which such choices can be recognised

- **Analysing** film segments in terms of the features selected

- Exploring **differences in the possibilities** of the distinct modes

- Exploring regularities, variation over time, variation over interpretative effects **empirically**

Areas of discourse semantics that appear applicable to film

film (visual)

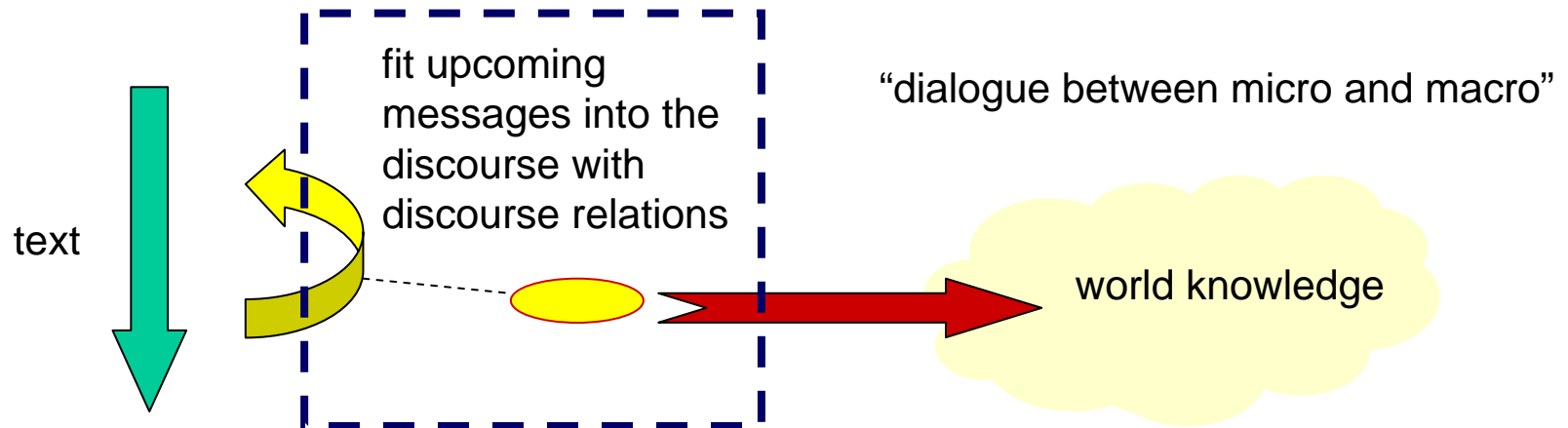| Time	internal/ external	Event-types	Discourse Relations	Evaluation Appraisal	Cohesion
duration	*fabula/syuzhet*	*description*	*temporal*		
aspect		*action*	*causal*		
			spatial		
			additive		
			projective		

Two example areas selected: Discourse relations & Filmic cohesion

- **Discourse relations in film** (Bateman, 2007)

  - relations between film segments in terms of temporality, spatiality, epistemic status, …

  - discourse structures constructed by these relations

- **Cohesive reference in film** (Tseng, 2008).

  - How characters, objects and settings in coherent film narratives are presented and presumed

  - cohesive chains constructed by these ties

Role of discourse configurations

- To mediate between the form and most likely ranges of interpretation

text

fit upcoming messages into the discourse with discourse relations

"dialogue between micro and macro"

world knowledge

- The discourse relation rules guide **when and how** world knowledge is considered in the interpretation process

- historically situated
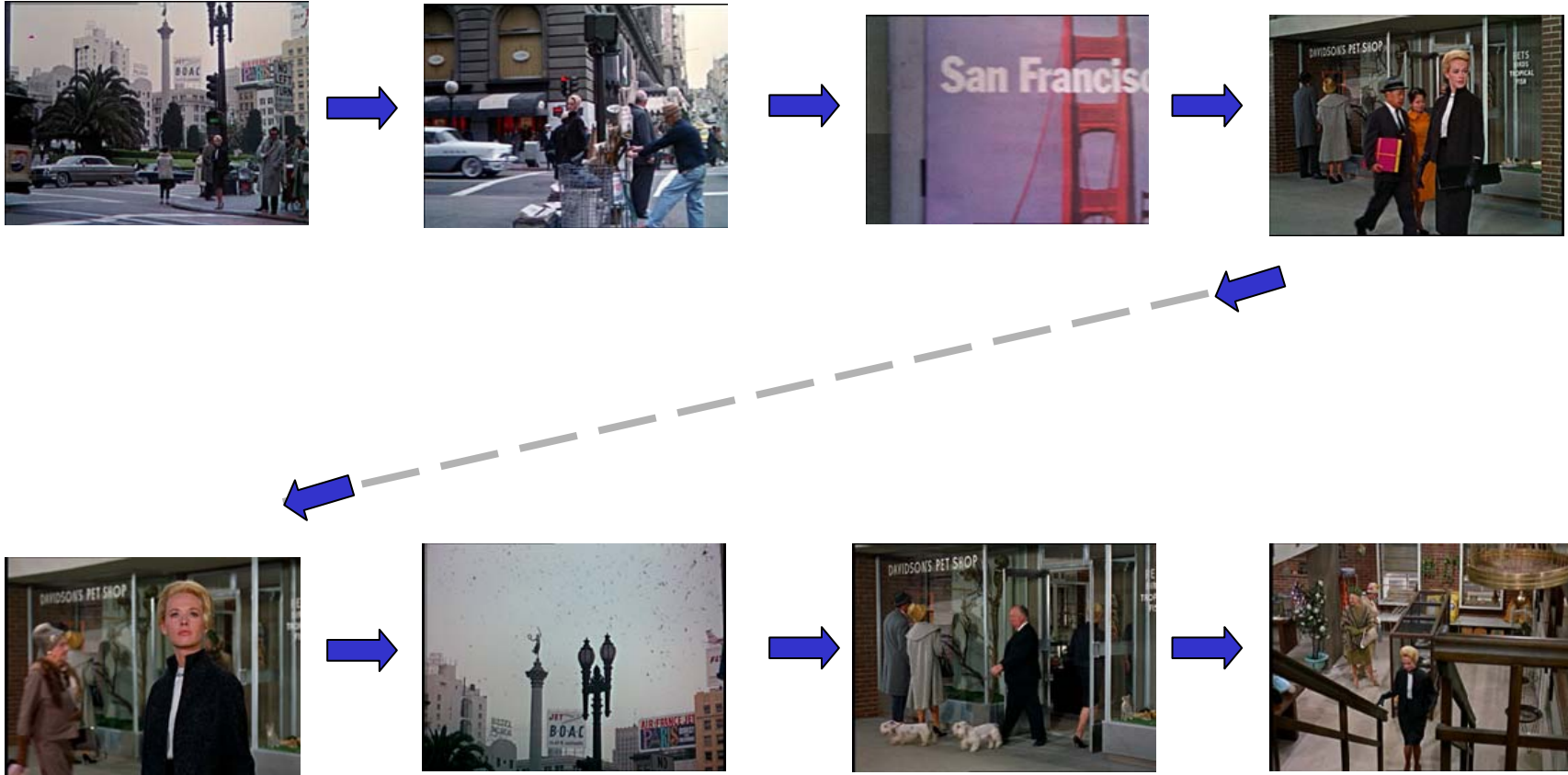- potential-actual loop
- anchored to forms/patterns
- basis for further, more abstract interpretations
- resource for discourse-construction mechanisms

generic
specific

MODE OF REALIZATION
mono-modal
cross-modal

presenting

SALIENCE
immediate
gradual
dynamic
static

PRELUDE
mono-modal
cross-modal

presuming

unique — culturally known identity realized in visual figure, sound, music, verbal nominal group

explicit — repetition of visual figure, verbal nominal

REAPPEARANCE

variable

implicit — partial repetition of visual figure/ voice

Time
duration
aspect

internal/ external
fabula/syuzhet

Event-types
description
action

Discourse Relations
temporal
causal
spatial
additive
projective

Evaluation
Appraisal

Cohesion

film (visual)

The cohesive chain of *Melanie*
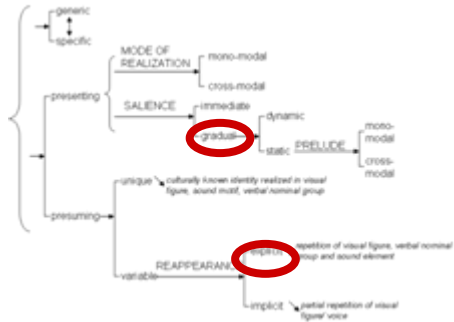
Melanie

[presenting: gradual salience]

[presuming: explicit ↘ face reappearance]

setting (a):
SF street view

[presenting:
immediate salience]

[presuming: unique]

[presuming: explicit
reappearance]

Universität Bremen
Visuals, Film, Discourse
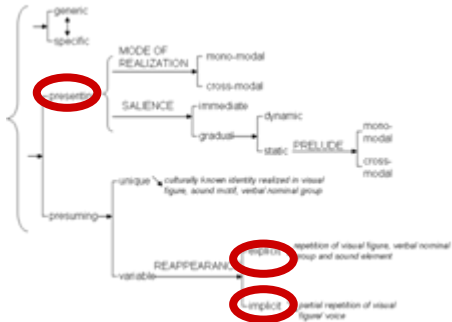
setting (b): petshop

[presuming: explicit reappearance]

[presenting ↘ *Davidson's petshop*]

[presuming: implicit reappearance ↘ match on action]

Universität Bremen
Visuals, Film, Discourse
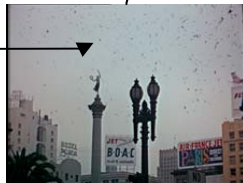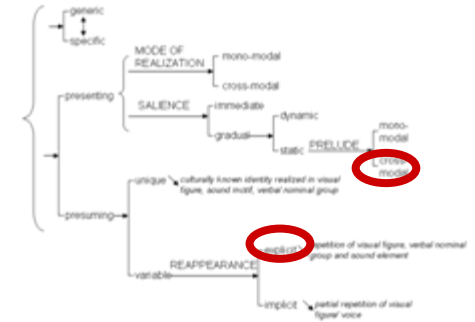
birds

squawking sounds

[presenting: gradual salience with audio PRELUDE]

[presuming: sound reappearance
↘ *bird chirping*]

chirping sounds
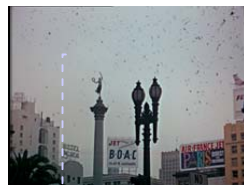
general people

[presenting: immediate salience]

[presuming: explicit reappearance]

chirping sounds

Cohesive chains of the beginning of *The Birds*

image	Melanie	setting (a): SF street view	setting (b): petshop	birds	general people
1	[v]	[v]		(squawking)	[v]
2	[v]	[v]		(squawking)	[v]
3		San Fransisco [v: poster]		(squawking)	
4	[v]	[v]		(squawking)	[v]
5		[v]		[v]	
6	[v]	[v]		(squawking)	[v]
7	[v]		[v]		[v]
8	[v]		[v]	(chirping)	

Universität Bremen
Visuals, Film, Discourse

21
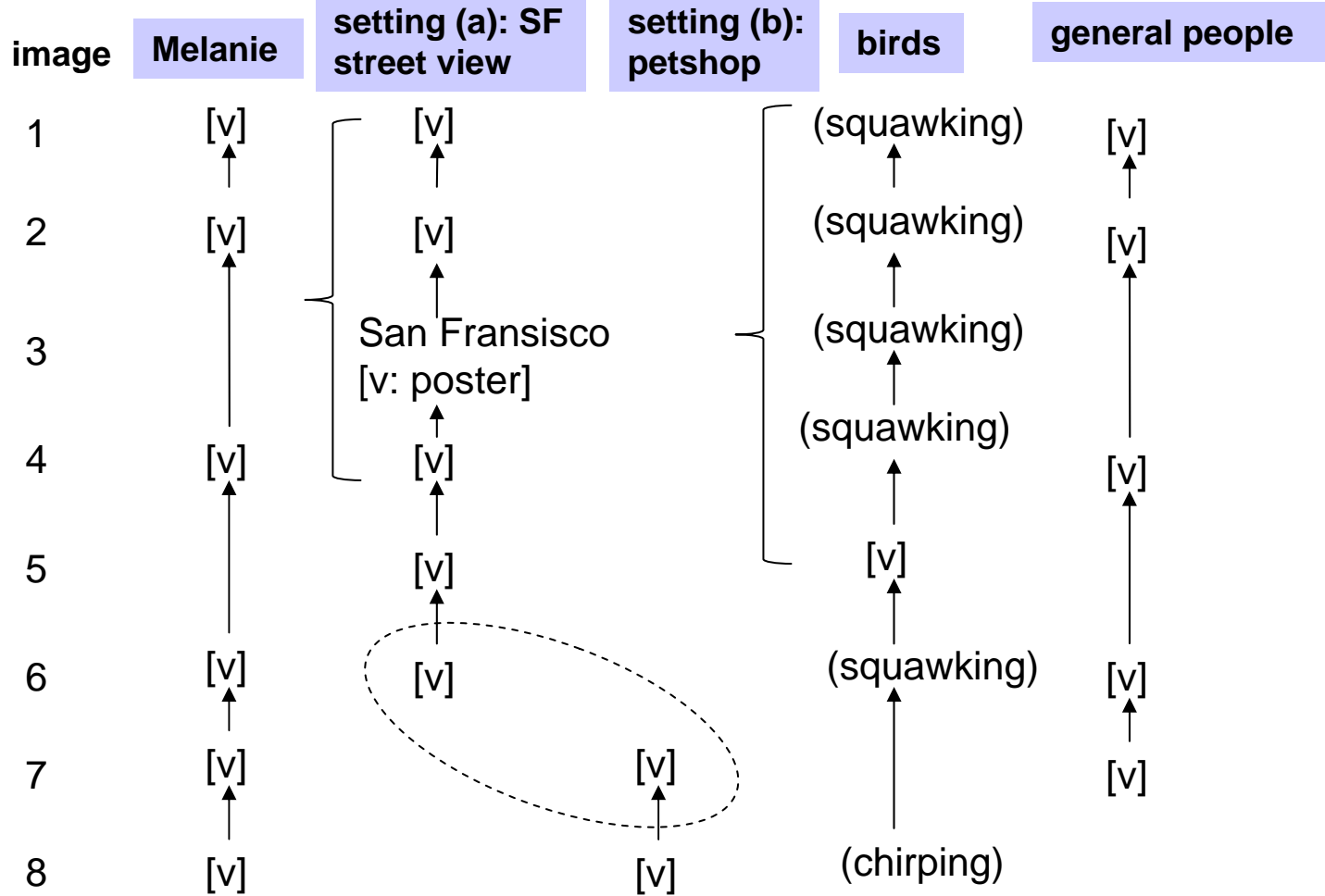
Empirical Phase

- Not sufficient to simply describe cohesive chains

- Necessary also to show that the features being picked out are **functional** in terms of the interpretative activity of viewers

- If they:

  – are, then their use is supported

  – are not,
  argues against particular functional distinctions in our description

Exploratory Study: *Memento*

Hypothesis

- Despite *Memento*'s well-known achronological sequencing, viewers should in fact have relatively little difficulty `following' the film because sufficient clues via explicitly signalled cohesive chains maintain interpretability and avoid disorientation.
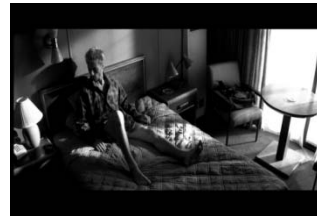
Method

- Alternative versions of the beginning sequence were constructed varying according to the variables of cohesive ties and temporal sequencing

- Participants (n=29) watched one of the prepared sequences and answered a questionnaire about what they had seen

Universität Bremen
Visuals, Film, Discourse

S1: colour

S2: B&W

S3: colour

S4: B&W

Patterns of cohesive chains in the first four sequences of *Memento*
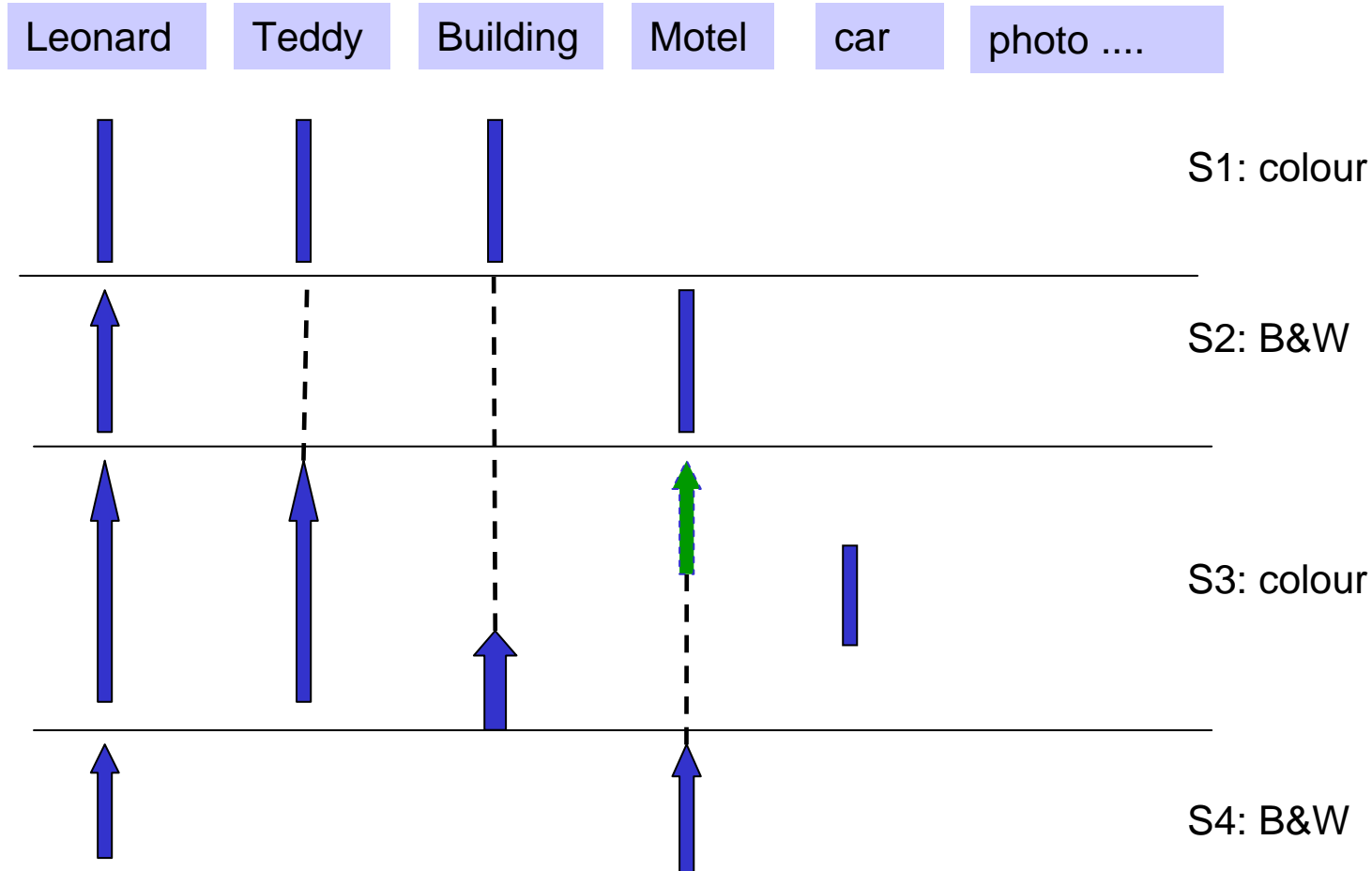
| Leonard | Teddy | Building | Motel | car | photo .... |

S1: colour

S2: B&W

S3: colour

S4: B&W

Universität Bremen
Visuals, Film, Discourse

| Leonard | Teddy | Building | Motel | car | photo .... |

S1: colour

clear face reappearance

S2: B&W

clear face reappearance

explicit verbal cues!

S3: colour

clear face reappearance

visual repetition signalled by L&T's actions
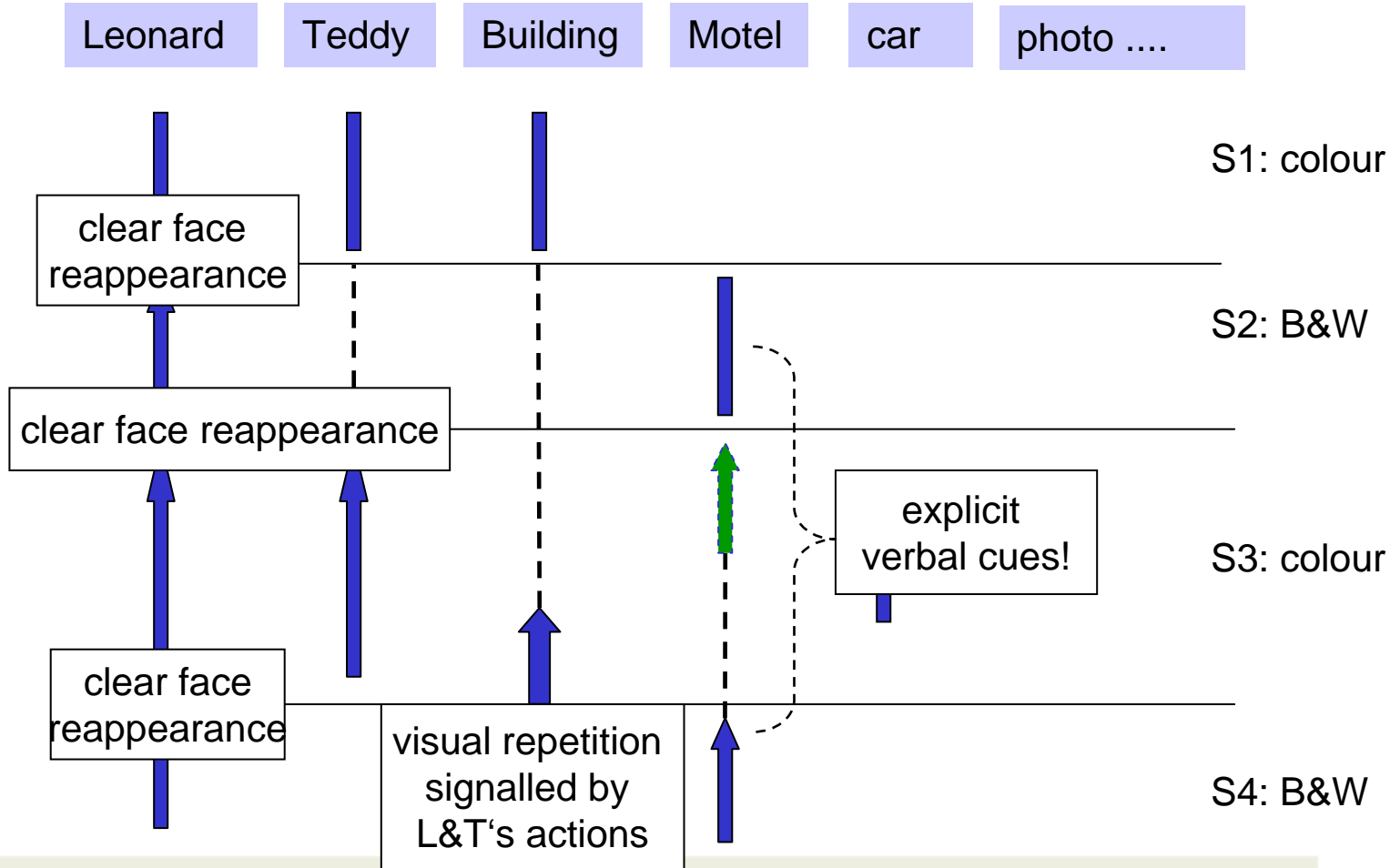
S4: B&W

Verbal cues functioning for creating the cohesive chain of *Motel*

*'So, where are you? You are **in a motel room**'*

*'It's an **anonymous room**'.*

S2: B&W

Discount Inn

S3: colour

*'It's an **anonymous room**'*

S4: B&W

Universität Bremen
Visuals, Film, Discourse

'So, where are you? You are in a motel room.'

It's an anonymous room.

S2: B&W

Discount Inn

S3: colour

'It's an anonymous room.'

S4: B&W

Either

1. ***chronological cues***, or

2. ***cohesive identity cues***

will operate to guide viewers narrative interpretation.

Experiment– variable 1: Manipulating chronological order

original:
achronological

S1	S2	S3	S4
colour	*B&W*	*colour*	*B&W*

chronological

S2	S4	S3	S1
B&W	*B&W*	*colour*	*colour*

Universität Bremen
Visuals, Film, Discourse

So, where are you? You are **in a motel room.**

It's an **anonymous room.**

S2: B&W

Discount Inn

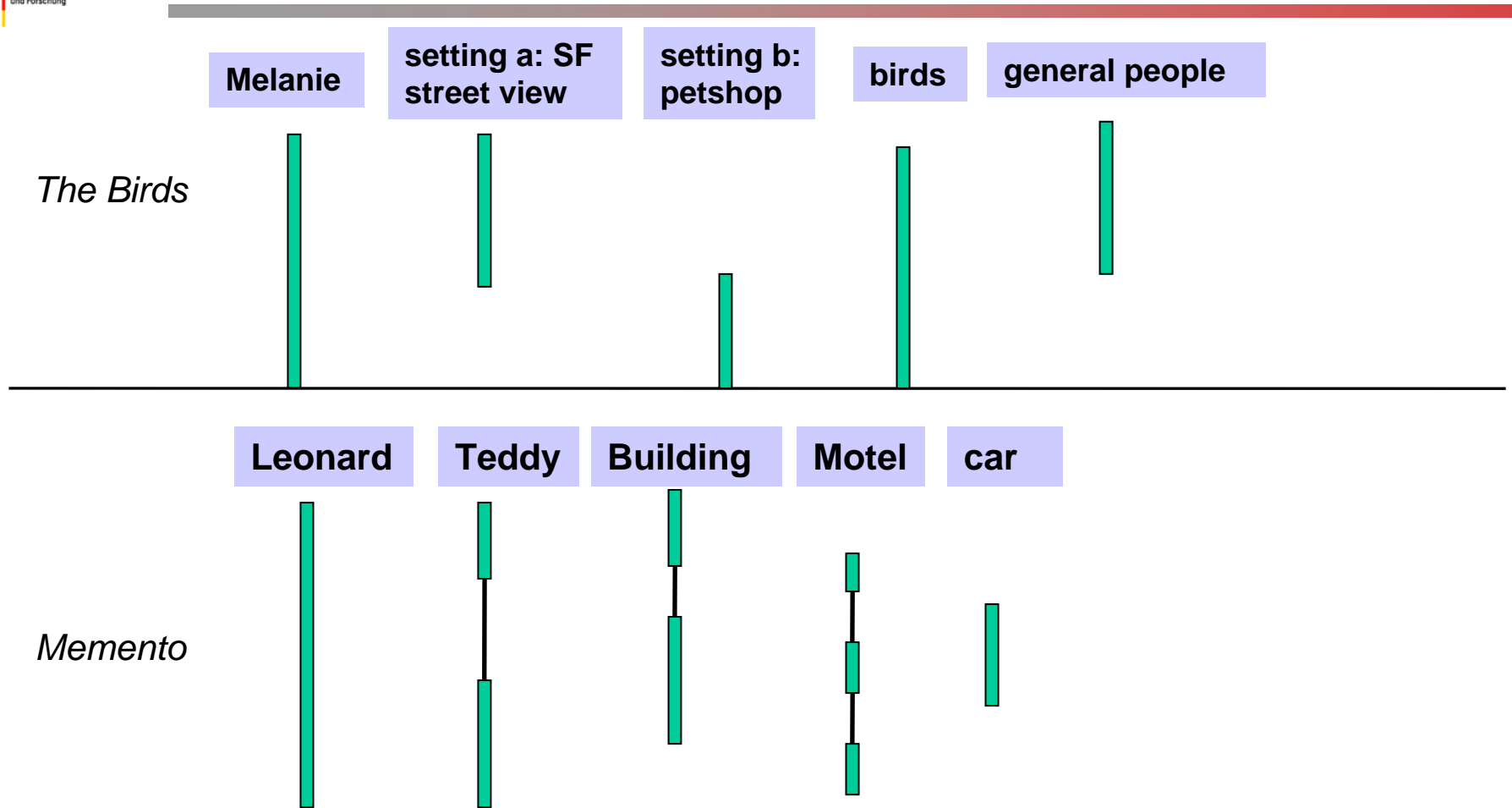S3: colour

It's an **anonymous room.**

S4: B&W

Chains in *Memento* without the cohesive ties in the MOTEL chain

LN	TD	Building	Setting ?-1	car	Discount Inn	setting ?-2

S1: colour

S2: B&W

??

S3: colour

??

S4: B&W

33
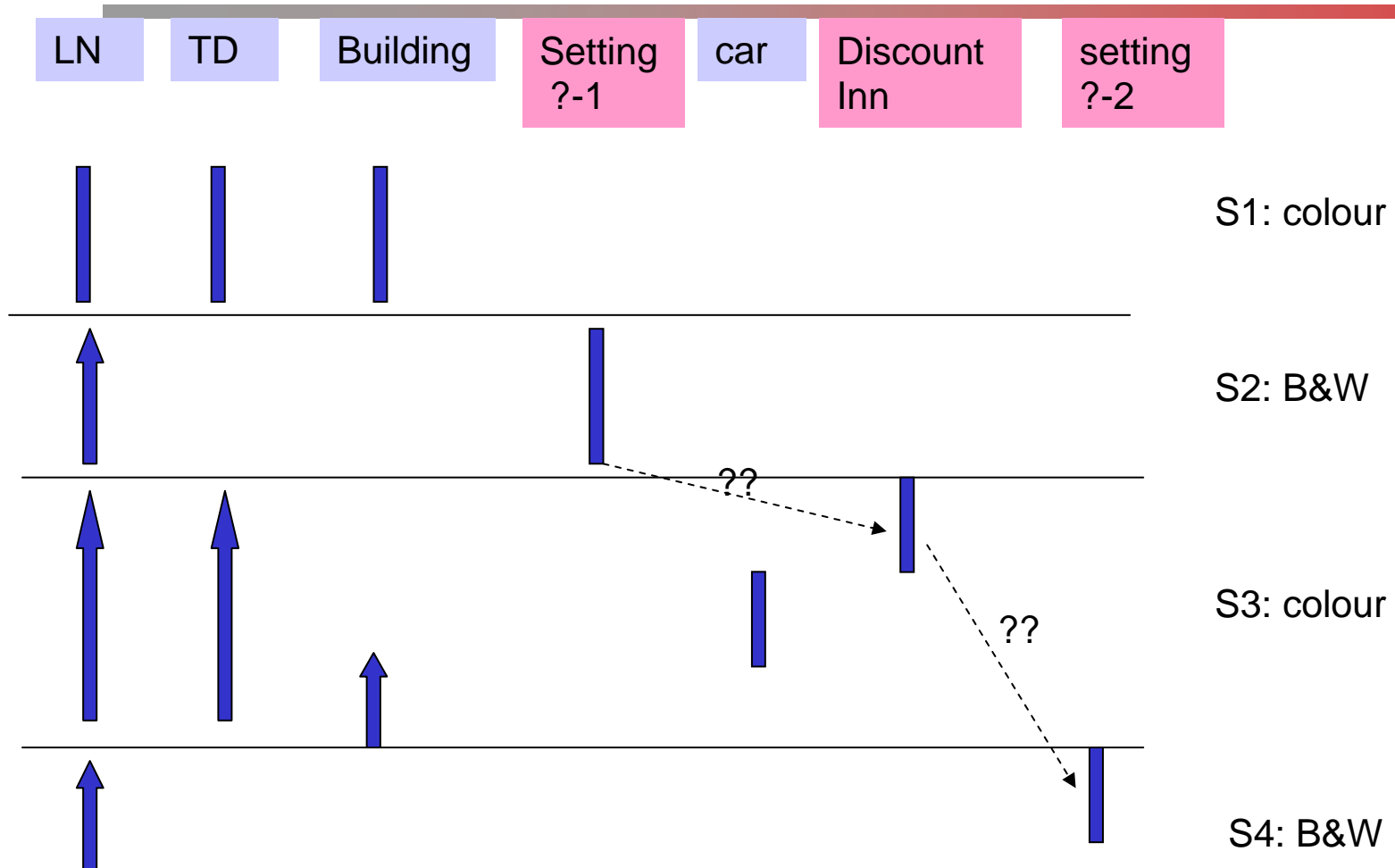
Experiment : 2 x 2 design

S1	S2	S3	S4

LN	TD	Building	**Motel**	car

S1	S2	S3	S4

LN	TD	Building	setting ?-1	car	setting ?-2

1. achronological + cohesive cues   **3. achronological + NO cohesive cues**

2. chronological + cohesive cues   **4. chronological + NO cohesive cues**

S2	S4	S3	S1

LN	**Motel**	TD	car	Building
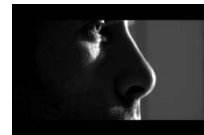
S2	S4	S3	S1

LN	setting ?-1	setting ?-2	TD	car	Building

Universität Bremen
Visuals, Film, Discourse

Experiment : 2 x 2 design

Prediction:

- if chronological development **and** cohesion is disrupted, interpretability will be compromised

1. achronological + cohesive cues	**3. achronological + NO cohesive cues**
2. chronological + cohesive cues	**4. chronological + NO cohesive cues**

Q3: What is/are the setting(s)/places of the **black-and-white** scenes?
(*e.g.,* in a restaurant, in the airplane, in a kitchen, etc.)

multiple responses to Q3: chi-square = 14.58, df = 3, p =.002

Experiment : 2 x 2 design

Prediction:

- if chronological development **and** cohesion is disrupted, interpretability will be compromised

1. achronological + cohesive cues	**3. achronological + NO cohesive cues**
2. chronological + cohesive cues	**4. chronological + NO cohesive cues**

Q3: What is/are the setting(s)/places of the **black-and-white** scenes?
(*e.g.,* in a restaurant, in the airplane, in a kitchen, etc.)

accuracy of responses to Q3:chi-square = 8.47, df = 3, p = .037

Conclusion and outlook

- Preliminary support for the role of cohesive ties in guiding viewers' interpretations

- Mediates between text-based and recipient-based accounts

- Discourse semantics and functional linguistics appear useful grounds for theorization

- Systemic generation of hypotheses for 'significant effects' to be investigated empirically

- Suggests a beneficial re-linking of empirical methods, functional descriptions and film studies

- Currently exploring distinctive patterns of such ties across genres and periods

Open Issues

- just what discourse mechanisms also play a role for film and how does the medium shape them?

- are there areas that do **not** work discursively?

- many distinct possibilities for constructing patterning:

    – some may be directly recognised, some not.

    – a continuum?

- detailed analysis allows focus independently of individual viewers

- narrative: instrument for constructing 'mind', 'narrators', etc.: discourse: the instrument for constructing discourse?

- "All things being equal, an explicit theory is to be preferred to an implicit theory"…: what about 'text' / 'film' itself as discursive artefacts?

- convergence/divergence