Talking about yesterday - postnominal temporal adverbs in the German prefield

Eva Csipak & Sarah Zobel

Uni Konstanz & Uni Tübingen/Uni Göttingen

Event Semantics 2016
November 25, 2016
Introduction: the puzzle – I

- Temporal and local adverbs can occur post-nominally in German (e.g. Alexiadou et al. 2007, Bücking 2012, Gunkel & Schlotthauer 2012).
- Evident in case the DP occurs in the prefield.
- Can occur with individual nouns and event nouns.

\[(1)\]

a. *Das Mädchen gestern war im Kino.*
   ‘The girl yesterday went to the movies.’

b. *Der Unfall gestern war schrecklich.*
   ‘The accident yesterday was horrific.’

⇒ focus on *gestern* (‘yesterday’)
⇒ restrict the data to definite descriptions in the prefield
Introduction: the puzzle – II

- German provides two further constructions that are similar:
  - post-posed PPs of the form ‘von + adverb’
  - pre-posed adjectives related to/derived from the adverbs

(2) *Das Mädchen von gestern war im Kino.*
  ‘Yesterday’s girl went to the movies.’

(3) *Das gestrige Mädchen war im Kino.*
  ‘Yesterday’s girl went to the movies.’
Introduction: the puzzle – III

- Adverbs are traditionally analyzed as event modifiers: \textit{gestern} in (4) temporally locates the event described by the main predicate.

(4) \textit{Das Mädchen war gestern im Kino.}
    The girl went to the movies yesterday.

⇒ The combination of \textit{gestern} with event nouns seems semantically straightforward.

⇒ The combination of \textit{gestern} with individual nouns poses a bigger problem.
Questions

- How does the semantic contribution of the post-posed adverb differ from that of the corresponding adjective?
- How does the semantic contribution of the adverb differ when it is post-posed from when it occurs in the middle field?
- Can we give a semantic account for the adverb that captures all of its uses?

⇒ pursue a coercion account in the system proposed in Asher 2011
Overview

Introduction

Delimiting post-posed adverbs

Prefield vs. middle field

A first analysis

A new analysis

Conclusion
Delimiting post-posed adverbs

▶ **Show**: Variants with post-posed adverbs differ from the variants containing the corresponding *von*-PPs or adjectives.

▶ **Leave open**: How the variants containing *von*-PPs and adjectives differ from each other.
Post-posed adverb vs. PP – I

We find examples where we cannot substitute the post-posed adverb and the PP for each other.

(5)  a. *Der Vortrag von gestern gefällt mir nicht.*
    ‘I don’t like yesterday’s talk’.
    
b. *??Der Vortrag gestern gefällt mir nicht.*
    ‘???I don’t like the talk yesterday.’

(6)  a. *???Der Tod des Papstes von gestern war ein Schock.*
    ‘???Yesterday’s death of the pope was a shock.’
    
b. *Der Tod des Papstes gestern war ein Schock.*
    ‘The pope’s death yesterday was a shock.’

⇒ the variant with the post-posed adverb is not an elliptic version of the PP variant
Post-posed adverb vs. PP – II

- The *von*-PP is always a restrictive modifier. That is, it suggests the existence of other entities that can be described by the noun.
  - *der Vortrag von gestern* ~ yesterday’s *version* of the talk

- The plain post-posed adverb can also be used unrestrictively.
  - E.g., modifying *the death of the pope*
Post-posed adverbs vs. adjectives – I

We also find examples where we cannot exchange the post-posed adverb and the adjective for each other.

(7) a. *Der gestrige Vortrag gefällt mir nicht.*
    ‘I don’t like yesterday’s talk’.

b. *???Der Vortrag gestern gefällt mir nicht.*
    ‘???I don’t like the talk yesterday.’

(8) a. *???Der gestrige Tod des Papstes war ein Schock.*
    ‘???Yesterday’s death of the pope was a shock.’

b. *Der Tod des Papstes gestern war ein Schock.*
    ‘The pope’s death yesterday was a shock.’
Post-posed adverbs vs. adjectives – II

- The corresponding adjective is also always a restrictive modifier. That is, it suggests the existence of other entities that can be described by the noun.
  - *der gestrige Tod des Papstes* ～ yesterday’s death of the pope suggests a class of salient contrasting alternatives yesterday’s death of the Queen / of the Dalai Lama / ...

- The plain post-posed adverb can be used unrestrictively.
Upshot

▶ The meaning of post-posed adverbs differs from that of similar adjectives and PPs.
▶ They need to be studied individually.

▶ Properties of post-posed adverbs:
  ▶ Can be used restrictively and unrestrictedly
  ▶ Seem to modify the time of an event

Today:
⇒ Focus on the restrictive use of the post-posed adverbs.
⇒ Investigate their semantics.
The data

(9) \textit{Das Mädchen gestern war im Kino.}
‘The girl yesterday went to the movies.’

(10) a. \textit{Gestern war das Mädchen im Kino.}
b. \textit{Das Mädchen war gestern im Kino.}
c. \textit{Das Mädchen war im Kino gestern.}
d. ‘\textit{The girl went to the movies yesterday.}’
The semantics of yesterday

- *gestern* locates an event in the interval [0:00-24:00] prior to utterance time

- In its adverbial use, *gestern* locates the event described by the main predicate.

  (11) a. Das Mädchen war gestern im Kino.
      b. The girl went to the movies yesterday.

  (12) $\exists e. \text{go-to}(e, \text{the-girl}, \text{movie}) \land \tau(e) \subset [0:00-24:00]^{tu-1}$

- Consequence: the tense in the clause has to be compatible with the event being located in the past

  (13) a. *Das Mädchen geht gestern ins Kino.
      b. *The girl goes to the movies yesterday.
The semantics of *yesterday*

- *gestern* locates an event in the interval [0:00-24:00] prior to utterance time.
- In its adverbial use, *gestern* locates the event described by the main predicate.

(11)  
   a. Das Mädchen war gestern im Kino.
   b. The girl went to the movies yesterday.

(12)  
   $\exists e. \text{go-to}(e, \text{the-girl}, \text{movie}) \land \tau(e) \subseteq [0:00-24:00]t_{u-1}$

- **Consequence:** the tense in the clause has to be compatible with the event being located in the past.

(13)  
   a. *Das Mädchen geht gestern ins Kino.
   b. *The girl goes to the movies yesterday.
Post-posed adverbs: no restriction on tense – I

The tense of the main predicate does not have to match the post-posed temporal adverb.

(14) Context: A met a woman.

A: *Die Frau gestern war mir sympathisch.*
   The woman yesterday was friendly.*

(15) Context: A went to a self-help group for widows led by a woman who also lost her husband.

A: *Die Frau gestern ist seit 5 Jahren Witwe.*
   The woman yesterday is a widow for five years.*
Post-posed adverbs: no restriction on tense – II

- We can use a temporal adverbial in the sentence that picks out a different temporal interval than *gestern*.
- The tense in the sentence only has to fit the temporal adverbial.

(16) a. *Das Mädchen gestern war heute im Kino.*
‘The girl yesterday went to the movies today.’

b. *Das Mädchen gestern geht heute ins Kino.*
‘The girl yesterday is going to go to the movies today.’

c. *Das Mädchen gestern geht morgen ins Kino.*
‘The girl yesterday will go to the movies tomorrow.’
Post-posed adverbs: no restriction on tense – III

There are conceptual restrictions on possible combinations of main predicates in present tense and post-posed *gestern*. (cf. Gunkel & Schlotthauer 2012:284ff)

(17) *Die Veranstaltung gestern endete/*endet gegen 22 Uhr.*
The event yesterday ended/*ends around 10pm.

(18) *Der Vortrag gestern wurde/wird sehr gelobt.*
The talk yesterday got/gets praised a lot.
A further contrast between prefield and middle field

(19) a. Der Unfall gestern hat drei Menschenleben gekostet.  
‘The accident yesterday cost three human lives.’  

b. Der Unfall hat gestern drei Menschenleben gekostet.  
‘The accident cost three human lives yesterday.’

- In a., the accident happened the day before and the maximal number of victims is understood to be three.
- In b., the accident did not have to happen the day before and the maximal number of victims can be higher (...‘in addition to five more the day before’).
Intuition: contribution of post-posed \textit{gestern} – I

- \textit{gestern} temporally locates eventualities.
- \textbf{Expectation:} \textit{gestern} can directly combine with event nouns.

(20) \textit{Der Unfall gestern war schlimm.}

‘The accident yesterday was terrible.’

Computational problem: \textit{gestern} also needs to form a constituent with individual nouns

(21) \textit{Der Verkäufer gestern war unfreundlich.}

‘The salesman yesterday was rude.’
Intuition: contribution of post-posed *gestern* – II

\[(22) \textit{Der Verkäufer gestern war unfreundlich.} \]
‘The salesman yesterday was rude.’

▶ Intuition:
‘The salesperson who was involved in an eventuality that happened yesterday was rude’

⇒ We need to coerce an eventuality!
Background on coercion (Asher 2011)

1. Coercion results from a type mismatch between two lexical elements, i.e., a combinatory conflict.

2. Most widespread: Coercion of an eventuality property from an individual property.

3. The conflict is typically resolved locally. That is, there is no lasting effect on the interpretation of the parts.

4. The eventuality property that is coerced for an individual property is only available in the “right” coercion contexts.
Evidence for coercion with individual nouns

- The conflict is resolved locally: in the main predication the subject is not an event

(23) *Die Zeitung gestern lag auf dem Tisch.*
‘The newspaper yesterday lay on the table.’
(Gunkel & Schlotthauer 2012: 288)

- The eventuality property is only available in coercion contexts: *Zeitung* cannot denote an eventuality property by itself

(24) #*Die Zeitung (gestern) dauerte drei Stunden.*
#‘The newspaper (yesterday) lasted for three hours.’
Interim summary

▶ Post-posed adverbs seem to combine easily with event-denoting nouns.
▶ When combining with individual nouns, an eventuality involving the individual needs to be coerced.
▶ The coercion is restricted to the local context.
▶ What we want: a semantics for post-posed adverbs that allows coercion of the right kind of eventualities in the spirit of Asher 2011.
Assumption: syntactic structure

We assume a minimal syntax. The phrase projected by the adverb directly adjoins to the NP.
Background: the system proposed in Asher 2011

- Very rich inventory of types that goes beyond classical types with a non-classical structure: e.g., EVT (eventuality), P (physical object), I (information object), …

- Type requirements (“type presuppositions”) are encoded as a part of the lexical semantics and are passed along during computation through dedicated arguments ($\pi$).

- General direction of inheritance: functions pass on their type requirements to their arguments

- Combinatoric idiosynchrasy: nouns take their modifiers as arguments
yesterday – first formalization

- **First**: account for the combination of event nouns with *gestern*
- *gestern* locates an eventuality in the interval [0:00-24:00] prior to utterance time

\[
\text{[gestern]} = \lambda Q.\lambda e.\lambda \pi. Q(e)(\pi) \\
\land \text{gestern'}(\pi \ast \text{ARG}_2^{\text{gestern}} : \text{EVT}, e)
\]

\[
\text{gestern'}(\pi, e) \iff \tau(e) \subset [0:00-24:00]^t_u^{-1}
\]

⇒ Based on Asher’s (2011:233f) analysis of ‘a quick cigarette’
Event nouns – I

(27)  (der) Unfall gestern / ‘(the) accident yesterday’

(28)  \[ \text{Unfall} = \lambda P.\lambda e.\lambda \pi.P(\lambda u.\lambda \pi'.\text{Unfall}'(\pi', u))(e)(\pi \ast \text{ARG}_1^\text{Unfall} : \text{EVT}) \]

Using classical types, the combinatorics can be illustrated as follows:

(29)

```
\langle v, t \rangle
  \langle \langle vt, vt \rangle, vt \rangle
    \langle vt, vt \rangle
    \text{accident}
    \|\|\|
  \text{yesterday}
```

Note: the classical types ignore the type presupposition arguments
Event nouns – II

Combining *Unfall* with *gestern*:

\[(30) \quad \lambda e.\lambda \pi.\text{Unfall}'(\pi \ast \text{ARG}_1^{\text{Unfall}} : \text{EVT}, e) \wedge \text{gestern}'(\pi \ast \text{ARG}_1^{\text{Unfall}} : \text{EVT} \ast \text{ARG}_2^{\text{gestern}} : \text{EVT}, e)\]

\[\Leftrightarrow (\text{since } \text{ARG}_1^{\text{Unfall}} = \text{ARG}_2^{\text{gestern}})\]

\[(31) \quad \lambda e.\lambda \pi.\text{Unfall}'(\pi \ast \text{EVT}, e) \wedge \text{gestern}'(\pi \ast \text{EVT}, e)\]

In words: a set of events e such that e is an accident and e occurred yesterday
Individual nouns – I

Individual nouns cannot combine with *gestern* directly:

(32)  *(die) Zeitung gestern* / *(the) newspaper yesterday*

(33)   \[\text{[Zeitung]} = \lambda P.\lambda x.\lambda \pi.P(\lambda u.\lambda \pi'.\text{Zeitung'}(\pi', u))(x)(\pi \ast \text{ARG}_1^{\text{Zeitung}} : P \bullet I)\]

The combinatory conflict can be illustrated with classical types:

(34)  
```
\downarrow
```

```
⟨⟨et, et⟩, et⟩  ⟨vt, vt⟩
```

```
\text{newspaper} \quad \text{yesterday}
```

Individual nouns – II

Combining *Zeitung* with *gestern*, we see the combinatory conflict in the type requirements:

\[(35) \quad \lambda \pi. \lambda \pi. \text{Zeitung}'(\pi \ast \text{ARG}_1^{\text{Zeitung}} : P \bullet I, x) \land \text{gestern}'(\pi \ast \text{ARG}_1^{\text{Zeitung}} : P \bullet I \ast \text{ARG}_2^{\text{gestern}} : \text{EVT}, x)\]

Since \(\text{ARG}_1^{\text{Zeitung}} = \text{ARG}_2^{\text{gestern}}\):
conflict between the requirements that \(x\) be a physical/information entity and that it be an eventuality

**Solution following Asher:** modify the lexical semantics of *gestern* to be able to locally coerce an eventuality to satisfy the type requirements of *gestern*
Individual nouns – III

Modification of the denotation of \textit{gestern}:

(36) \[ \llbracket \text{gestern} \rrbracket = \lambda Q. \lambda e. \lambda \pi. Q(e)(\pi) \]
\[ \land \text{gestern}'(\pi \ast \text{ARG}_2^{\text{gestern}} : \text{EVT} \overline{\epsilon(HD(Q))}, e) \]

Adding the dependent type \( \epsilon(HD(Q)) \) ensures:
in case \( Q \) is not a property of eventualities, we can infer the existence of an eventuality depending on the type of argument that \( Q \) expects

\( \Rightarrow \) Our case: inference based on a certain type of individuals
Individual nouns – IV

The combinatory conflict between Zeitung and gestern still arises:

\[(37) \quad \lambda x. \lambda \pi. \text{Zeitung'}(\pi \ast \text{ARG}_1^{\text{Zeitung}} : P \cdot I, x) \wedge \text{gestern'}(\pi \ast P \cdot I \ast \text{EVT} - \epsilon(\text{HD}(Q)), x)\]

The dependent type licenses the application of a coercion functor to repair the type mismatch so that all type requirements are satisfied with the following result:

\[(38) \quad \lambda x : P \cdot I. \lambda \pi. \text{Zeitung'}(\pi, x) \wedge \exists e[\text{gestern'}(\pi, e) \wedge \phi_\epsilon(\text{Zeitung})(e, x, \pi)]\]

Result: we infer the existence of an eventuality that took place yesterday and involved a newspaper.
A problematic example

- Our account predicts that event nouns never trigger coercion since there is never a type mismatch between event nouns and gestern.

- **Prediction:** gestern always temporally locates the runtime of the eventualities described by an event noun.

[Context: A geography teacher is teaching one earthquake and its consequences per session.]

(39) Das Erdbeben gestern findet ihr auf Seite 23.

‘The earthquake yesterday, you can find on page 23.’

(We thank Sven Lauer for this example.)
A problematic example

- Our account predicts that event nouns never trigger coercion since there is never a type mismatch between event nouns and *gestern*.
- **Prediction:** *gestern* always temporally locates the runtime of the eventualities described by an event noun.

[Context: A geography teacher is teaching one earthquake and its consequences per session.]

(39) *Das Erdbeben gestern findet ihr auf Seite 23.*

‘The earthquake yesterday, you can find on page 23.’

(We thank Sven Lauer for this example.)
New starting point

- Assume that the temporal adverb *gestern* modifies a property of times (= temporal intervals).
- Add TIME as a type to Asher’s system.
- **Consequence:** the adverb combines with individual nouns and event nouns via coercion of a temporal interval.

\[
\begin{align*}
(40) \quad \llbracket gestern \rrbracket &= \lambda Q. \lambda t. \lambda \pi. Q(t)(\pi) \\
&\quad \land \quad gestern'(\pi \star \text{ARG}^\text{gestern}_2 : \text{TIME} - \theta(HD(Q)), t)
\end{align*}
\]

\[
(41) \quad gestern'(\pi, t) \iff t \subset [0:00-24:00]^{t_u-1}
\]

\(\theta(HD(Q))\) is a subtype of TIME that is inferred on the basis of an individual or eventuality (depending on Q)
Event nouns – I

\[(42) \quad (\text{der}) \ Unfall \ gestern / ‘(the) accident yesterday’\]

\[(43) \quad \text{Unfall} = \lambda P. \lambda e. \lambda \pi. P(\lambda u. \lambda \pi'. \text{Unfall}’(\pi', u))(e)(\pi * \text{ARG}_1^{\text{Unfall}} : \text{EVT})\]

Using classical types, the combinatorics can be illustrated as follows:

\[(44) \quad \Downarrow\]

\[
\langle \langle \text{vt}, \text{vt} \rangle, \text{vt} \rangle \quad \langle \text{it}, \text{it} \rangle
\]

\[
\text{accident} \quad \text{yesterday}
\]
Event nouns – II

Combining *Unfall* with *gestern*

\[(45)\] \[\lambda e. \lambda \pi. \text{Unfall'}(\pi \ast \text{ARG}^\text{Unfall}_1 : \text{EVT}, e) \land \text{gestern'}(\pi \ast \text{ARG}^\text{Unfall}_1 : \text{EVT} \ast \text{ARG}^\text{gestern}_2 : \text{TIME} - \theta(\text{HD}(Q)), e) \]

\[\iff (\text{since ARG}^\text{Unfall}_1 = \text{ARG}^\text{gestern}_2)\]

\[(46)\] \[\lambda e. \lambda \pi. \text{Unfall'}(\pi \ast \text{EVT}, e) \land \text{gestern'}(\pi \ast \text{EVT} \ast \text{TIME} - \theta(\text{HD}(Q)), e) \]

The combinatory conflict between *Unfall* and *gestern* is solved via another coercion functor. We infer the existence of a temporal interval.

\[(47)\] \[\lambda e : \text{EVT}. \lambda \pi. \text{Unfall'}(\pi, e) \land \exists t[\text{gestern'}(\pi, t) \land \phi_\theta(\text{Unfall})(t, e, \pi)]\]
Event nouns – II

Combining \textit{Unfall} with \textit{gestern}

(45) \[
\lambda e.\lambda \pi.\text{Unfall}'(\pi \ast \text{ARG}_1^{\text{Unfall}} : \text{EVT}, e) \land \text{gestern}'(\pi \ast \text{ARG}_1^{\text{Unfall}} : \text{EVT} \ast \text{ARG}_2^{\text{gestern}} : \text{TIME} - \theta(\text{HD}(Q)), e)
\]
\[
\Leftrightarrow (\text{since ARG}_1^{\text{Unfall}} = \text{ARG}_2^{\text{gestern}})
\]

(46) \[
\lambda e.\lambda \pi.\text{Unfall}'(\pi \ast \text{EVT}, e) \land \text{gestern}'(\pi \ast \text{EVT} \ast \text{TIME} - \theta(\text{HD}(Q)), e)
\]

The combinatory conflict between \textit{Unfall} and \textit{gestern} is solved via another coercion functor. We infer the existence of a temporal interval.

(47) \[
\lambda e : \text{EVT}.\lambda \pi.\text{Unfall}'(\pi, e) \land \exists t[\text{gestern}'(\pi, t) \land \phi_\theta(\text{Unfall})(t, e, \pi)]
\]
Individual nouns – I

(48) \([\text{die} \ \text{Zeitung} \ \text{gestern}] / '(\text{the}) \ \text{newspaper yesterday}'\)

(49) \[
\begin{align*}
\llbracket \text{Zeitung} \rrbracket &= \\
\lambda \mathcal{P} . \lambda x . \lambda \pi . \mathcal{P} (\lambda u . \lambda \pi' . \text{Zeitung}'(\pi', u))(x)(\pi * \text{ARG}_{1}^{\text{Zeitung}} : \mathcal{P} \bullet \mathcal{I})
\end{align*}
\]

Using classical types, the combinatorics can be illustrated as follows:

(50) \[
\begin{array}{c}
\llbracket
\\
\langle \langle \text{et}, \text{et} \rangle, \text{et} \rangle & \langle \text{it}, \text{it} \rangle \\
\text{newspaper} & \text{yesterday}
\end{array}
\]

Eva Csipak & Sarah Zobel
Uni Konstanz & Uni Tübingen/Uni Göttingen
Talking about yesterday - postnominal temporal adverbs in the German prefield
Individual nouns – II

Combining *Zeitung* with *gestern*:

\[(51) \quad \lambda x. \lambda \pi. \text{Zeitung}'(\pi \star \text{ARG}_{1}^{\text{Zeitung}} : P \bullet I, x) \wedge \text{gestern}'(\pi \star \text{ARG}_{1}^{\text{Zeitung}} : P \bullet I \star \text{ARG}_{2}^{\text{gestern}} : \text{TIME} - \theta(HD(Q)), x)\]

\[\Leftrightarrow \text{ (since ARG}_{1}^{\text{Zeitung}} = \text{ARG}_{2}^{\text{gestern}} )\]

\[(52) \quad \lambda x. \lambda \pi. \text{Zeitung}'(\pi \star P \bullet I, x) \wedge \text{gestern}'(\pi \star P \bullet I \star \text{TIME} - \theta(HD(Q)), x)\]

The combinatory conflict between *Zeitung* and *gestern* is again solved via a coercion functor. We infer the existence of a temporal interval.

\[(53) \quad \lambda x : P \bullet I. \lambda \pi. \text{Zeitung}'(\pi, x) \wedge \exists t [\text{gestern}'(\pi, t) \wedge \phi_{\theta}(\text{Zeitung})(t, x, \pi)]\]
Individual nouns – II

Combining *Zeitung* with *gestern*:

(51) \( \lambda x. \lambda \pi. \text{Zeitung}'(\pi \ast \text{ARG}_1^{\text{Zeitung}} : P \bullet I, x) \land \text{gestern}'(\pi \ast \text{ARG}_1^{\text{Zeitung}} : P \bullet I \ast \text{ARG}_2^{\text{gestern}} : \text{TIME} - \theta(HD(Q)), x) \)

\( \Leftrightarrow \) (since \( \text{ARG}_1^{\text{Zeitung}} = \text{ARG}_2^{\text{gestern}} \))

(52) \( \lambda x. \lambda \pi. \text{Zeitung}'(\pi \ast P \bullet I, x) \land \text{gestern}'(\pi \ast P \bullet I \ast \text{TIME} - \theta(HD(Q)), x) \)

The combinatory conflict between *Zeitung* and *gestern* is again solved via a coercion functor. We infer the existence of a temporal interval.

(53) \( \lambda x : P \bullet I. \lambda \pi. \text{Zeitung}'(\pi, x) \land \exists t[\text{gestern}'(\pi, t) \land \phi_\theta(\text{Zeitung})(t, x, \pi)] \)
Which temporal intervals are inferred?

- **Event nouns:**
  - The temporal intervals that are intimately associated with the eventualities described by the noun are their run-times ($\tau(e)$).
  - Connecting the event nouns to a different temporal interval, as in the earthquake example, needs strong contextual support.

- **Individual nouns:**
  - No temporal interval is naturally associated with an individual (apart from its existence interval).
  - Salient temporal intervals: run-times of eventualities in which the individual participated.
  - Importantly, no eventualities are directly coerced!
(Dis)advantages of the analysis

- +: The analysis for *gestern* fits previous analyses of the lexical item in temporal semantics.
- +: The standard adverbial use of the adverb is expected to require no further changes if we work out temporal semantics in Asher’s system. (→ future work)
- +/-: Practically all instances of post-posed *gestern* are assumed to involve coercion.
Prediction: restriction on combinability

- The analysis predicts that *gestern* can only combine with nouns for which the interlocutors can associate temporal intervals.

- **Observation 1:** Without supporting context, the use of post-posed *gestern* is infelicitous for
  - abstract nouns for which no time-dependent versions exist; e.g. *Liebe* (‘love’) and *Freiheit* (‘freedom’)
  - nouns describing characteristics of individuals that are taken to be stable across time; e.g. *Körpergröße* (‘height’)

- **Observation 2:** If the context contains a previous conversation between the interlocutors on the topic, nearly all combinations improve:

(54) [Context: A told B Peter’s height (2.10m) the day before.]

  B: *Peters Körpergröße gestern hat mich überrascht.*
  ‘Peter’s height yesterday surprised me.’
Prediction: restriction on combinability

- The analysis predicts that *gestern* can only combine with nouns for to which the interlocutors can associate temporal intervals.

- **Observation 1:** Without supporting context, the use of post-posed *gestern* is infelicitous for
  - abstract nouns for which no time-dependent versions exist; e.g. *Liebe* (‘love’) and *Freiheit* (‘freedom’)
  - nouns describing characteristics of individuals that are taken to be stable across time; e.g. *Körpergröße* (‘height’)

- **Observation 2:** If the context contains a previous conversation between the interlocutors on the topic, nearly all combinations improve:

  (54) [Context: A told B Peter’s height (2.10m) the day before.]

  B: *Peters Körpergröße gestern hat mich überrascht.*
  ‘Peter’s height yesterday surprised me.’
Prediction: temporal nouns

Temporal nouns are predicted to combine with *gestern* directly without coercion.

(55) Der Nachmittag gestern war sonnig.
‘The afternoon yesterday was sunny.’

(56) ⟦Nachmittag gestern⟧ =
\[\lambda t : \text{TIME.}\lambda \pi . \text{Nachmittag'}(\pi, t) \land \text{gestern'}(\pi, t)\]
Summary

- We find post-posed adverbs event-denoting nouns and individual-denoting nouns.
- Similar constructions (von+adverb, corresponding adjective) show different semantic behavior.
- We proposed two analyses in the system proposed in Asher 2011:
  - First analysis: only event coercion with individual-denoting nouns.
  - Second analysis: temporal coercion with event-denoting nouns and individual-denoting nouns.
Some open questions

▶ **Beyond definite descriptions:** How does post-posed *gestern* behave in combination with other DPs? Are there restrictions on determiners? Do indefinite DPs have to be specific? . . .

▶ Is the temporal independence we find for post-posed *gestern* with definite descriptions restricted to definite descriptions?

(57) *So (ei)ne Frau gestern hat mich (??heute) im Supermarkt angerempelt.*

‘Some woman yesterday jostled me at the supermarket (??today).’

(58) *Ein gewisser Partygast gestern hat mich heute angerufen.*

‘A certain party guest yesterday called me today.’

▶ **General question:** instead of giving a coercion account of the data, would an analysis in terms of reduced relatives be a viable alternative?
Thank you!

