

Bavarian complex *der*-verbs and temporal adverbials

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Bavarian *der*-verbs

- ▶ **Bavarian *der*-verbs:** complex verbs built with the Bavarian prefix *der*-
 - (1) a. *essen* 'eat' ↗ *der*-*essen* (ROOT: *essen*)
b. *aufessen* 'eat up' ↗ *auf-der*-*essen* (ROOT: *aufessen*)

Bavarian *der*-verbs

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b. *aufessen* 'eat up' ↗ *auf-der*-*essen* (ROOT: *aufessen*)
- ▶ **Bavarian *der*-** may correspond to Standard German *er-*, *ver-* *zer-* but has also independent uses (e.g., Sonnenhauser 2012)
 - (2) a. *er-arbeiten* 'acquire' ↗ *der*-*arbeiten*
b. *ver-faulen* 'rot' ↗ *der*-*faulen*
c. *zer-stechen* 'prick all over' ↗ *der*-*stechen*

Focus: *der*-verbs conveying “successful realization”

Purely Bavarian use: the complex verb encodes roughly that the agent managed to perform the action described by the verbal material *der*-combines with

- (3) *Der Alex hat das Schnitzel auf-der-essen.*
the Alex has the schnitzel up-der-eaten
(≈ ‘Alex managed to eat the schnitzel.’)
- (4) *Der Alex hat den Ball gegen die Wand der-schmissen.*
the Alex has the ball against the wall der-thrown
(≈ ‘Alex managed to throw the ball against the wall.’)

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 - ▶ the agent intended to perform the action

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- ▶ the agent performed the action
- ▶ the agent intended to perform the action
- ▶ the speaker believes that the action was not easy to complete

Goals of this talk

- ▶ **Starting point:** What is the aktionsart of *der*-verbs?
⇒ we show that they are **achievement predicates**

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 - *der*-verbs can combine with temporal adverbials that are otherwise incompatible with achievement predicates
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- ▶ **Starting point:** What is the aktionsart of *der*-verbs?
⇒ we show that they are **achievement predicates**
- ▶ The result that *der*-verbs describe achievements, leads to **a puzzle**:
 - *der*-verbs can combine with temporal adverbials that are otherwise incompatible with achievement predicates
 - the resulting interpretation cannot be explained by aspectual coercion
- ▶ We discuss **two potential solutions** to the puzzle and present **further data** that, we believe, favors one of the two solutions.

Roadmap

Introduction

Aktionsart of *der*-verbs

der-verbs are not states or activities

der-verbs are achievements, not accomplishments

Conclusion: the aktionsart of *der*-verbs

Puzzle: combinations with unexpected temporal adverbials

The puzzle

Proposal B1: temporal adverbials as internal modifiers

Proposal B2: *der*-verbs are morpho-syntactically complex

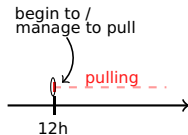
B1 vs. B2: aspectual coercion

Conclusion

Behavior with time-point adverbials

- ▶ **Observation:** time-point adverbials temporally locate the event described by *der*-verbs

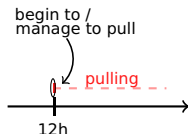
- (5) *Der Alex hat die Kiste um Punkt 12h der-zogen.*
the Alex has the box at point 12h der-pulled
'At 12h sharp, Alex managed to pull the box.'



Behavior with time-point adverbials

- ▶ **Observation:** time-point adverbials temporally locate the event described by *der*-verbs

- (5) *Der Alex hat die Kiste um Punkt 12h der-zogen.*
 the Alex has the box at point 12h der-pulled
 'At 12h sharp, Alex managed to pull the box.'



- ▶ with **activities** and **states**, they localize an instance within the runtime

- (6) *Die Susi lief um Punkt 12h.*
 the Susi ran at point 12h
 'Susi was running at 12h sharp.' (activity)

- (7) *Die Ida war um Punkt 12h glücklich.*
 the Ida was at point 12h happy
 'Ida was happy at 12h sharp.' (state)

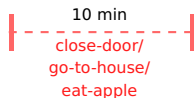
⇒ *der*-verbs denote **neither activities nor states**

der-verbs: achievements or accomplishments?

- ▶ **Background:** only accomplishments are **compatible with *dauern***
⇒ predicates describing an event with a left and a right boundary

(8) Accomplishments

- Die Susi hat die Türe zugemacht.*
the Susi has the door closed
'Susi closed the door.'
- Die Ida ist zum Haus gegangen.*
the Ida is to.the house went
'Ida went to the house.'
- Die Ina hat einen Apfel gegessen.*
the Ina has a apple eaten
'Ina ate an apple.'



- ✓...Es hat 10 min gedauert.
- ✓...'It lasted 10 minutes.'

dauern-test: *der*-verbs behave like achievements

der-verbs and achievement predicates are **incompatible with *dauern***

► Achievements

- (9) *Der Tom hat die Partie gewonnen/verlassen.*
the Tom has the game won/left
'Tom won/left the game.'
??...Es hat 10 min gedauert.
??...'It lasted 10 min.'

► *der*-verbs

- (10) *Der Alex hat die Kiste der-zogen.*
the Alex has the box der-pulled
'Alex managed to pull the box'.
??...Es hat 10min gedauert
??...'It took 10min.'

wrt *dauern*: *der*-verbs behave like **achievement predicates**

in-adverbials as an aktionsart-test

- ▶ **Background:** achievements describe **left or right boundaries** of events (Piñón 1997; Zybatow 2004, 2008)

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 - ▶ **Zybatow 2004, 2008:** *in*-adverbials are potentially ambiguous between two readings
 - ▶ ***within-reading*:** measures the runtime of the event described by the modified predicate
 - ▶ ***after-reading*:** measures the time from reference time to some boundary of the event described by the modified predicate
- ⇒ accomplishments and achievements show distinct interpretation patterns with *in*-adverbials

in-adverbials as an aktionsart-test

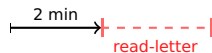
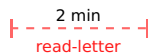
- ▶ **Background:** achievements describe **left or right boundaries** of events (Piñón 1997; Zybatow 2004, 2008)
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- ⇒ accomplishments and achievements show distinct interpretation patterns with *in*-adverbials
- ▶ We show
 - ▶ *der*-verbs do not pattern with accomplishments
 - ▶ they pattern with both types of achievements: right boundary achievements (rAs) and left boundary achievements (lAs)

Accomplishments + *in*-adverbials (Zybatow 2004, 2008)

Interpretation-pattern of accomplishments + *in* adverbials

- ▶ *within*-reading available
- ▶ *after*-reading targets left boundary

- (11) a. *Er liest den Brief in 2 min*
 He reads the letter in 2 min.
 'It takes him 2 min to read the letter.'
- b. *Er liest in 2 min den Brief.*
 he reads in 2 min the letter
 'In 2 min, he starts reading the letter.'

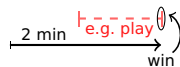
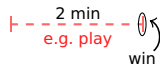


Achievements + *in*-adverbials (Zybatow 2004, 2008)

1) right boundary achievements (= right boundary of an inferred event)

- *within*-reading available
- *after*-reading targets right boundary

- (12) a. *Der Alex gewinnt das Spiel in 2 min.*
 the Alex wins the game in 2 min
 'It takes Alex 2 min to win the game.'
- b. *Der Alex gewinnt in 2 min das Spiel.*
 'In ten minutes, Alex wins the game.'

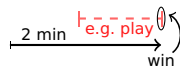
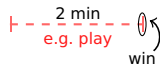


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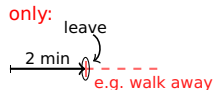


2) left boundary achievements (= left boundary of an inferred event)

- *within*-reading unavailable
- *after*-reading targets left boundary

- (13) a. *Der Alex verlässt den Platz in 2 min.*
 the Alex leaves the square in 2 min
 #'It takes Alex 2 min to leave the square.'
- b. *Der Alex verlässt in 2 min den Platz.*
 'In 2 min, Alex leaves the square.'

NOT AVAILABLE

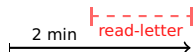
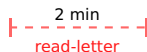


der-verbs are achievements, not accomplishments

der-verbs and *in*-adverbials

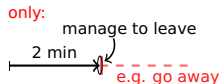
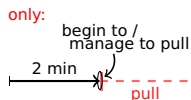
1) *der*- + ROOT^{+_{acc/rA}} ⇒ rA pattern

- (14) a. *Er der-liest den Brief in 2 min.*
 he der-reads the letter in 2 min
 'He manages to read the letter within 2 min.'
- b. *Er der-liest in 2 min den Brief.*
 'In 2 min, he manages to read the letter.'



2) *der*- + ROOT^{+_{act/IA}} ⇒ IA pattern

- (15) *Die Ida der-zieht die Kiste in 2 min.*
 the Ida der-pulls the box in 2 min
 'In 2 min, Ida manages to pull the box.'
- (16) *Sie der-haut in 2 min ab.*
 she der-beats in 2 min PART
 'In 2 min, she manages to leave.'



Aktionsart: conclusion

- ▶ **Time-point adverbials:** *der*-verbs do not denote states or activities
- ▶ ***dauern*-test:** *der*-verbs do not denote accomplishments
 - ⇒ like achievements, *der*-verbs are incompatible with *es hat x-Zeit gedauert*
- ▶ ***in*-adverbials:** *der*-verbs pattern exactly like achievements
 - *der*- + $\text{ROOT}^+_{\text{acc}/\text{rA}}$ pattern like **right boundary achievements**
 - *der*- + $\text{ROOT}^+_{\text{act}/\text{IA}}$ pattern like **left boundary achievements**

⇒ Prefixion of *der*- creates achievements by **introducing a boundary of the event described by the ROOT^+** .

Puzzle: combination with temporal adverbials

- ▶ **Observation:** only the boundary described by the full *der*-verb is accessible to **negation**

(17) *Der Alex hat das Schnitzel nicht auf-der-essen.*
 the Alex has the Schnitzel not up-der-eaten
 'Alex did not manage to eat the schnitzel.'
 (not: 'Alex managed to not eat the schnitzel.')

↪ event described by ROOT is not compositionally accessible

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- ▶ **Puzzle:** when *der-halten* 'der-hold' combines with a durative adverbial, the sentence has an interpretation (R2) that cannot be explained via aspectual coercion

(18) *Der Alex hat die Kiste zwei Stunden lang der-halten.*
 the Alex has the box two hours long der-halten.
 R1: 'For two hours, Alex repeatedly managed to hold the box.'
 R2: 'Alex managed to hold the box for two hours.'

How to proceed?

Assuming the following contribution for durative adverbials:

(19) $[[\text{zwei Stunden lang}]] = \lambda e. \text{for}(e, \text{two-hours})$ (Dölling 2014)

there are two ways to deal with this puzzle:

- (A) the prefix *der-* does not fix the aktionsart of the complex verb, the verbal root does (cf. Sonnenhauser 2012)
- (B) *der-*verbs are achievements and the interpretation R2 can be explained by independent means



⇒ we see **two ways to make (B) concrete**:

- (B1) temporal adverbials can be internal modifiers
- (B2) *der-*verbs are morpho-syntactically complex

Maienborn (2001, 2003): internal locative modifiers

Internal locative modifiers adjoin low in the VP and locate an entity involved in the eventuality:

(20) Eva signed the contract **on the last page**.

⇒ interpretation via a **flexible modification template**

(21) MOD*: $\lambda Q.\lambda P.\lambda x. P(x) \ \& \ R(x, v) \ \& \ Q(v)$
 (R and v are contextually instantiated)

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⇒ combination of *on the last page* with *sign* in (20)

(22) $\llbracket [\textit{sign} [\text{MOD}^* \textit{on the last page}]] \rrbracket =$
 $\lambda e. \textit{sign}(e) \ \& \ R(e, v) \ \& \ \textit{on-the-last-page}(v)$

⇒ R is instantiated as a part-of relation

⇒ v is inferred to denote Eva's signature

B1: Possible analysis for (18)

- (18) *Der Alex hat die Kiste zwei Stunden lang der-halten.*
 the Alex has the box two hours long der-halten.
 'Alex managed to hold the box for two hours.'

- **Assume:** *der-halten* describes a boundary *e* of a holding-event
- **Assume:** *zwei Stunden lang* 'for two hours' adjoins between the direct object and the *der*-verb

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- **Assume:** *zwei Stunden lang* 'for two hours' adjoins between the direct object and the *der*-verb

- use MOD* to compose *zwei Stunden lang* with *der-halten* in (18)

$$(23) \quad \llbracket \llbracket \text{MOD}^* \text{ zwei Stunden lang} \rrbracket \text{ derhalten} \rrbracket =$$

$$\lambda e. \text{ der-hold}(e) \ \& \ R(e, e') \ \& \ \text{for-two-hours}(e')$$

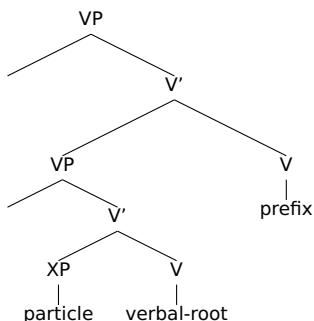
⇒ R is plausibly instantiated by a part-of relation

⇒ v is inferred to denote the holding-event e' performed by Alex

(cf. Zybatow 2008 for *in*-adverbials)

A syntactic analysis of complex verbs

Wurmbrand (1998), Zeller (2001): complex verbs in German are built in the syntax



- ▶ prefixes have scope over a lower VP that introduces the particle and verbal root
- ▶ the verbal root is combined with the prefix via head movement but reconstructs into the lower VP

⇒ adjunction sites in lower and higher VP

B2: Possible analysis for (18)

- (18) *Der Alex hat die Kiste zwei Stunden lang der-halten.*
 the Alex has the box two hours long der-halten.
 'Alex managed to hold the box for two hours.'

- **Assume:** *zwei Stunden lang* 'for two hours' adjoins to the lower VP
- **Assume:** *der-* has scope over the lower VP, closes off the holding-event described there, and introduces a boundary event for it
- ▶ *zwei Stunden lang* composes with *halten* 'hold' as a "regular modifier"

(24) VP_{low} : [.VP [.DP *the box*] [.V' [.for-two-hours] [.V *hold*]]]

(25) VP_{high} : [.VP [.V' VP_{low} [.V *der-*]]]

⇒ no inference-based composition step needed

B1 or B2? – A look at aspectual coercion

Observation:

If a *der*-verb combines with a temporal adverbial that does not readily combine with the complex verb *and* the internal verbal material, we observe **aspectual coercion readings with both parts**.

- (26) *Der Alex hat 10 Minuten lang einen Reifen über einen Zaun drüber-der-schmissen.*
 the Alex has 10 minutes long a tire over a fence
 over-der-thrown

- ▶ **temporal adverbial:** *10 Minuten lang* ‘for 10 Minutes’
- ▶ **ROOT:** *drüberschmeissen* ‘throw across’

Aspectual coercion: scenario 1

Scenario 1: Alex participates in a Spartan Race. His final task is to throw a tire across a fence for as long as he can manage. The longer he manages, the more points he gets.

(26) *Der Alex hat 10 Minuten lang einen Reifen über einen Zaun*

the Alex has 10 minutes long a tire over a fence

drüber-der-schmissen.

over-der-thrown

'For 10 minutes, Alex managed to throw a tire across a fence.'

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the Alex has 10 minutes long a tire over a fence

drüber-der-schmissen.

over-der-thrown

‘For 10 minutes, Alex managed to throw a tire across a fence.’

Interpretation: the *der*-verb plus its internal arguments and modifiers are coerced to get an iterative interpretation

(27) For 10 minutes, Alex repeatedly managed to throw a tire across a fence. Then he didn’t manage another throw.

Aspectual coercion: scenario 2

Scenario 2: Alex participates in a Spartan Race. His final task is to throw a tire across a fence for 10 minutes. If he takes a break during those 10 minutes, he won't get any points.

- (26) *Der Alex hat einen Reifen 10 Minuten lang über einen Zaun*
 the Alex has a tire 10 minutes long over a fence
drüber-der-schmissen.
 over-der-thrown
 'Alex managed to throw a tire over a fence for 10 minutes.'

Aspectual coercion: scenario 2

Scenario 2: Alex participates in a Spartan Race. His final task is to throw a tire across a fence for 10 minutes. If he takes a break during those 10 minutes, he won't get any points.

- (26) *Der Alex hat einen Reifen 10 Minuten lang über einen Zaun*
 the Alex has a tire 10 minutes long over a fence
drüber-der-schmissen.
 over-der-thrown
 'Alex managed to throw a tire over a fence for 10 minutes.'

Interpretation: the verbal material without *der-* but including the internal argument and modifiers is coerced to get an iterative interpretation

- (28) Alex managed to throw a tire across a fence for a duration of 10 minutes. He didn't take a break.

B1 or B2?

How B1 and B2 account for the aspectual coercion reading in scenario 2:

- ▶ **B1 – Flexible modification template:** combining the temporal adverbial with the verb requires inferring an event that cannot combine with the adverbial unless the combination is repaired by aspectual coercion
- ▶ **B2 – Complex syntax:** combining the temporal adverbial with the verb requires no additional inference step; the compositional mismatch is repaired by aspectual coercion

⇒ to our minds, B2 is a more parsimonious account of the data

⇒ **But:** we still lack clear evidence for or against either B1 or B2

Summary

- ▶ **Bavarian *der*-verbs** that describe the successful realization of an action are **achievement predicates**.
- ▶ The type of achievement depends on the ROOT that *der*- combines with.
- ▶ While negation cannot access the eventuality described by the verbal ROOT material, **temporal adverbials** seem to be able to modify this eventuality.
- ▶ **Two possible ways to account for this:**
 1. temporal adverbials can serve as internal modifiers
 2. complex verbs provide low adjunction sites that give access to the eventuality described by the verbal ROOT material
- ▶ The aspectual coercion data, to our mind, favors the second account.

Thank you!

We would like to thank our friends and families for acting as our native speaker consultants!

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Appendix: rA

- ▶ *der*-verbs + rAs also describe rAs
 - ▶ Zybatow 2004: *einlösen* is a right boundary achievement
- (29) *Er der-löst den Gutschein in 1 min ein.*
he der-solves the voucher in 1 min PART
'He manages to redeem the voucher within 1 min.'
- (30) *Er der-löst in 1 min den Gutschein ein.*
he der-solves in 1 min the voucher PART
'In 1 min, he manages to redeem the voucher.'

Appendix: other adverbials

- (31) *Die Johanna hat das Buch mit meiner Brille der-lesen.*
the Johanna has the book with my glasses der-read
R1: 'With my glasses, Johanna managed to read the book.'
R2: 'What Johanna managed, was reading the book with my glasses.'
- (32) *Der Alex hat das Schnitzel ohne Training auf-der-essen.*
the Alex has the schnitzel without training PART-der-eaten
R1: 'Without training, Alex managed to eat the schnitzel.'
R2: 'What Alex managed, was eating the schnitzel without training.'