

# How to manage something in Bavarian German: the Bavarian verbal prefix *der-*

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14.12.2020

RUESHeL Lab Meeting, HU Berlin

## The phenomenon: Bavarian *der-*

- ▶ **der-verbs:** complex verbs built with the Bavarian **verbal prefix *der-*** (pronounced: [da])

- (1) a. *heben* 'lift' ↗ *der-heben*  
b. *auf-heben* 'lift up' ↗ *auf-der-heben*  
c. *essen* 'eat' ↗ *der-essen*  
d. *auf-essen* 'eat up' ↗ *auf-der-essen*

⇒ *der-* productively combines with atomic and complex agentive verbs

- ▶ **Resulting meaning:** paraphrased by native speakers with either *manage* or an ability modal

- (2) *Der Alex hat das Schnitzel auf-der-essen.*  
the Alex has the schnitzel up-der-eaten  
(≈ 'Alex managed to eat the schnitzel.')(≈ 'Alex was able to eat the schnitzel.')

⇒ **We show:** paraphrase with *manage* fits best

## The double life of *der-*

- ▶ *der-* has other functions corresponding to Standard German *er-*, *ver-*, *zer-*.  
(e.g., Sonnenhauser 2009, 2012)
  - (3) a. *er-arbeiten* 'acquire'  
↪ *der-arbeiten*
  - b. *ver-faulen* 'rot'  
↪ *der-faulen*
  - c. *zer-stechen* 'prick all over'  
↪ *der-stechen*
- ▶ *der-* in its *manage*-function has no prefixal counterpart in Standard German.
- ⇒ We are only interested in the *manage*-function of *der-*.



Area of Bavarian German  
(Source: Wikipedia)

## Questions and goals

### Central questions for today:

1. What do *der*-verbs denote? And what does *der*- contribute?
2. How do *der*-verbs compare to the verbal forms in other languages that also contribute meanings paraphrasable with *manage* and/or ability modals?

### Our goals are to show:

- ▶ *der*-verbs form complex achievement predicates describing a boundary of an eventuality
- ▶ *der*-verbs convey additional projective content concerning the agent's commitment and the difficulty of the task
- ▶ the denotation of *der*-verbs plausibly differs from that of similar verbal forms in other languages

# Plan for today

## Intro

### *der*-verbs: ability modal or *manage*?

*der*- does not contribute an ability modal

*der*- does not quite behave like *manage* either

### Analysis: *der*-verbs

*der*-verbs describe boundaries of events

*der*-verbs require a plan/commitment by the agent

sentences with *der*-verbs express difficulty

## The cross-linguistic view: St'át'imcets, Malagasy, and Tagalog

## Conclusion

## Ability modal vs. *manage*: plan for this section

Starting point: paraphrases given by native speakers

- (4) *Der Alex hat das Schnitzel auf-der-essen.*  
the Alex has the schnitzel up-der-eaten  
(≈ 'Alex managed to eat the schnitzel.')(≈ 'Alex was able to eat the schnitzel.')

This section:

- ▶ The semantic contribution of *der-* is **not comparable** to that of an **ability modal**, though it is **close to that of *manage***.
- ▶ **Main observations on *der-*verbs:**
  - **Aktionsart/event structure:** *der-*verbs do not behave like stative verbs
  - **inference pattern:** not comparable to *actuality entailments* of ability modals but to pattern of two-way implicative verbs

## Modals are states, *der*-verbs behave differently

- ▶ **Modals** have **stative** aktionsart: not compatible with punctual adverbials without coercion

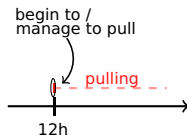
(5) *Der Alex konnte um Punkt 12h den Wagen ziehen.*  
 the Alex can-PAST at point 12h the cart pull  
 'Alex was able to pull the cart at 12h sharp.'

(state)

- ▶ ***der*-verbs and *manage***: punctual adverbs temporally localize the described event

(6) *Der Alex hat die Kiste um Punkt 12h der-zogen.*  
 the Alex has the box at point 12h der-pulled

(7) At 12h sharp, Alex managed to pull the box.



⇒ *der*-verbs, like *manage*, do not denote states

## The inference pattern of *can* is aspect-sensitive

- ▶ Languages with aspectual morphology: ability modals elicit *actuality entailments* with perfective past, but not with imperfect past.
- ▶ Languages without aspectual morphology: *actuality implicature* with certain kinds of adverbials.  
(e.g. Bhatt 1999; Nadathur 2019)

- (8) a. *In seiner Schulzeit konnte Alex die Strecke laufen.*  
in his school-time could Alex the way run  
'When he was in school, Alex was able to run the distance.'
- b. *Gestern Abend konnte Alex die Strecke laufen.*  
yesterday evening could Alex the way run  
'Yesterday evening, Alex was able to run the distance.'

⇒ (8-a) imperfective context + *can*<sub>abil.</sub>: NO actuality implicature

⇒ (8-b) perfective context + *can*<sub>abil.</sub>: actuality implicature



## The inference pattern of *der-* is not aspect-sensitive

Unlike *can*, *der-* is not sensitive to different aspectual adverbials.

(9) *In seiner Schulzeit ist der Alex die Strecke der-laufen*  
in his school-time is the Alex the way DER-run  
'When he was in school, Alex managed to run the distance.'

(10) *Gestern Abend ist der Alex die Strecke der-laufen*  
yesterday evening is the Alex the way DER-run  
'Yesterday evening, Alex managed to run the distance.'

⇒ Both (9) and (10) entail their *der-*less equivalents.

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⇒ Both (9) and (10) entail their *der-*less equivalents.

Again, *manage* behaves like *der-*

(11) *When he was in school*, Alex managed to run the distance.

(12) *Yesterday*, Alex managed to run the distance.

⇒ Both (11) and (12) entail the sentential complement of *manage*.

## *manage* and *der-*: two-way implicative inference pattern

### Entailment of positive sentences

(Karttunen 1971; Nadathur 2019)

(13) Der Alex hat die Kiste der-zogen.  
the Alex has the box DER-pulled

⊢ *Alex pulled the box.*

(14) Alex managed to pull the box.

⊢ *Alex pulled the box.*

### Entailment of negative sentences

(15) Der Alex hat die Kiste nicht der-zogen.  
the Alex has the box DER-pulled

⊢ *Alex didn't pull the box.*

(16) Alex didn't manage to pull the box.

⊢ *Alex didn't pull the box.*

## manage and der-: two-way implicative inference pattern

### Entailment of positive sentences

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⊢ Alex *didn't pull* the box.

(16) Alex didn't manage to pull the box.

⊢ Alex *didn't pull* the box.

### ⇒ two-way implicative inference pattern of *manage* and *der-*

– *manage* + CP ⇒ CP

– *der-* + VP ⇒ VP

– ¬*manage* + CP ⇒ ¬CP

– ¬*der-* + VP ⇒ ¬VP

## A semantic difference between *manage* and *der*-verbs

- ▶ **Coleman 1975:** *manage* can be used to describe unintentional actions

(17) Harry managed to insult Ursula without even trying.

(18) Alex stumbled and managed to knock over the table.

- ▶ **Impossible for *der*-verbs:** cannot describe involuntary or accidental actions

(19) #*Der Alex ist gestolpert und hat den Tisch um-der-worfen.*  
the Alex is stumbled and has the table over-der-thrown

- ⇒ the paraphrase with *manage* is semantically only an approximation
- ⇒ we develop a separate analysis

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## Analysis of *der-*: plan for this section

### Observations from last section:

- ▶ *der*-verbs are not stative
- ▶ *der*-verbs have the inference pattern of a two-way implicative verb

### This section: *der-* contributes asserted content and projective content

- ▶ **Asserted content:** *der-* is used to form achievement predicates
- ▶ **Projective content:** the use of *der-* is restricted by two requirements that have no influence on the asserted content

## Assumptions about achievement predicates

Piñón 1997; Zybatow 2004, 2008: achievement predicates describe punctual *boundary happenings* (i.e., boundaries of eventualities/happenings, which have temporal extension)

- ▶ **Left boundary achievements:** left boundary of an (inferred) event
- ▶ **Right boundary achievements:** right boundary of an (inferred) event



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- ▶ **Right boundary achievements:** right boundary of an (inferred) event

### Aktionsart/event structure of *der*-verbs:

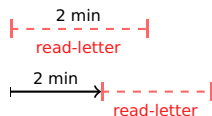
*der*-verbs describe a boundary of the eventuality described by **ROOT<sup>+</sup>**

- ⇒ **ROOT<sup>+</sup>**: the verbal root, the internal arguments, and other syntactic material low in the VP
- ⇒ the event structure of **ROOT<sup>+</sup>** determines which boundary is described

## Interaction with *in*-adverbials (Zybatow 2004, 2008)

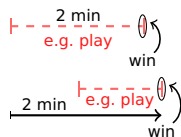
### 1) accomplishments

- (20) *Alex liest den Brief in 2 min.*  
 Alex reads the letter in 2 min.  
 'It takes Alex 2 min to read the letter.'  
 'In 2 min, Alex will read the letter.'



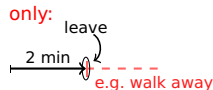
### 2.1) right boundary achievements

- (21) *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.'  
 'In 2 min, Alex wins the game.'



### 2.2) left boundary achievements

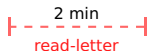
- (22) *Der Alex verlässt den Platz in 2 min.*  
 the Alex leaves the square in 2 min  
 '#It takes Alex 2 min to leave the square.'  
 'In 2 min, Alex leaves the square.'



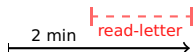
## der-verbs and in-adverbials

### 1) der- + ROOT<sup>+</sup><sub>acc/rA</sub> ⇒ rA pattern

- (23) *Er der-liest den Brief in 2 min.*  
he der-reads the letter in 2 min  
'He manages to read the letter in 2 min.'

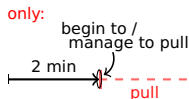


- (24) *Er der-löst den Gutschein in 2 min ein.*  
he der-solves the voucher in 2 min PART  
'He manages to redeem the voucher in 2 min.'

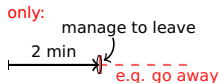


### 2) der- + ROOT<sup>+</sup><sub>act/IA</sub> ⇒ IA pattern

- (25) *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.'



- (26) *Sie der-haut in 2 min ab.*  
she der-beats in 2 min PART  
'In 2 min, she manages to leave.'



## Predicates with *der*-verbs behave like achievements

**Aktionsart of predicates with *der*-verbs:** determined based on ROOT<sup>+</sup>, not just based on the verbal root

- (27) Die Pia hat die Kiste *der*-zogen  
the pia has the box *der*-pulled  
'Pia managed to pull the box.' (IA)
- (28) Die Pia hat die Kiste 3 Meter *der*-zogen  
the pia has the box 3 meters *der*-pulled  
'Pia managed to pull the box 3 meters.' (rA)

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the pia has the box *der*-pulled  
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the pia has the box 3 meters *der*-pulled  
'Pia managed to pull the box 3 meters.' (rA)

The event structure of ROOT<sup>+</sup> determines which boundary is described

▶  $der- + \begin{Bmatrix} \text{accompl} \\ rA \end{Bmatrix} \longrightarrow rA$

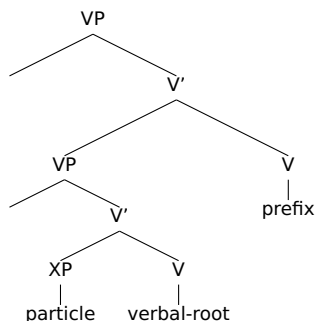
▶  $der- + \begin{Bmatrix} \text{activity} \\ IA \end{Bmatrix} \longrightarrow IA$

⇒ since more than just the verbal root is decisive in this, we believe *der*-prefixation involves a complex syntactic structure

## A syntactic analysis of complex verbs

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

(see also Zeller 2001)



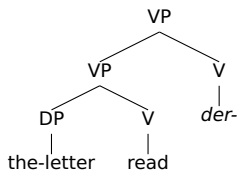
- ▶ prefixes have scope over a lower VP that introduces the particle and verbal root
- ▶ the verbal root is combined with the prefix via head movement but reconstructs into the lower VP

⇒ adjunction sites in lower and higher VP

## Semantic contribution of *der*-

### Example:

- (29) Alex *derliest* den Brief.  
'Alex manages to read the letter.'



- (30)  $\llbracket \text{the-letter read} \rrbracket = \lambda e'. \text{read}(e') \ \& \ \text{THEME}(e', \text{the-letter})$
- (31)  $\llbracket \text{der-} \rrbracket = \lambda P_{vt}. \lambda e. \text{BOUNDARY}(e, P)$  (WIP!)
- (32)  $\llbracket (29) \rrbracket = \exists e[\text{AGENT}(e, \text{Alex}) \ \& \ \text{BOUNDARY}(e, \lambda e'. \text{read}(e') \ \& \ \text{THEME}(e', \text{the-letter}))]$

## Capturing the inference pattern

Previous section: *der*-verbs show the inference pattern of two-way implicative verbs

(WIP!)

► Positive sentence:

(33) Der Alex hat den Brief *der*lesen.  
'Alex managed to read the letter.'  
⊢ Alex read the letter.

(34)  $\exists e[\text{AGENT}(e, \text{Alex}) \ \& \ \text{BOUNDARY}(e, \lambda e'. \text{read}(e') \ \& \ \text{THEME}(e', \text{the-letter}))]$

► Negative sentence:

(35) Der Alex hat den Brief nicht *der*lesen.  
'Alex didn't manage to read the letter.'  
⊢ Alex didn't read the letter (fully).

(36)  $\neg \exists e[\text{AGENT}(e, \text{Alex}) \ \& \ \text{BOUNDARY}(e, \lambda e'. \text{read}(e') \ \& \ \text{THEME}(e', \text{the-letter}))]$



## Projective content of *der*:- restricting the contexts of use – I

### Plan/commitment:

The agent must have signalled either verbally or via an action that they would (attempt to) do the action described by the predicate.

**Observation:** negated *der*-verbs cannot be used to describe just any action that was not performed

(37) *Der Alex hat das Schnitzel nicht der-essen.*  
the Alex has the schnitzel not der-eaten  
(≈ Alex didn't manage to eat the schnitzel.)

- ⇒ not okay in a context in which the speaker put a schnitzel into the fridge and notices the next day that Alex did not eat it
- ⇒ Alex must have committed in some way to eat the schnitzel

## No requirement of an active attempt

- ▶ **Plan/commitment** is the strongest possible formulation of the requirement.

- ▶ *der*-verbs do not require an active attempt by the agent:

(38) *Der Alex hat das Schnitzel nicht der-essen.*  
the Alex has the schnitzel not der-eat  
(≈ 'Alex did not manage to eat the schnitzel.')

(39) ✓ ... because he was occupied with other tasks.

- ⇒ okay if the agent is kept from realizing their plan/commitment in some way

## Projective content of *der*:- restricting the contexts of use – II

### Difficulty:

The speaker believes that someone in the agent's contextual comparison class is unable to perform the action.

**Underlying intuition:** performing the action described with a *der*-verb takes some effort on the part of the agent

(40) *Der Alex hat das Schnitzel auf-der-essen.*  
the Alex has the schnitzel auf-der-eaten  
(≈ Alex managed to eat the schnitzel.)

- ⇒ not okay in a context in which Alex was hungry and ate a normal-sized schnitzel
- ⇒ the schnitzel must have at least potentially been a challenge for Alex

## Not necessarily difficult for the agent

- ▶ **Difficulty** is again the strongest possible formulation of the requirement.
- ▶ The action does not have to be an effort for the agent.

(41) *Der Alex hat das Schnitzel leicht auf-der-essen.*  
the Alex has the schnitzel easily up-der-eaten  
(≈ 'Alex easily managed to eat the schnitzel.')

- ⇒ okay in a context in which the schnitzel might have been a challenge for the speaker or someone else in the context

## Interim summary: the semantic contribution of *der*-

- ▶ *der*- combines with the denotation of **ROOT<sup>+</sup>** to form an achievement predicate
  - ⇒ describes a boundary of the eventuality described by **ROOT<sup>+</sup>**
- ▶ sentences with *der*- convey additional projective content
  - ▶ the speaker believes that the agent is committed to performing the action described by **ROOT<sup>+</sup>**
  - ▶ believes that someone in the agent's contextual comparison class is unable to perform the action

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## Cross-linguistic comparison: no ambiguity for *der*-verbs – I

- ▶ The *manage*-like interpretation of *der*-verbs is reminiscent of verbal affixes/forms found in certain Non-Indo-European languages:
  - 'Out-of-Control' circumfix *ka-...-a* in St'át'imcets (e.g., Davis et al. 2007, 2009)
  - Malagasy verbal prefix *maha-* (e.g., Paul et al. 2015, 2016)
  - Tagalog ability/involuntary action (AIA) form (e.g., Alonso-Ovalle and Hsieh 2017, 2018)
- ▶ These forms are ambiguous:
 

(42) *ka-gwél-s=kan-a*  
CIRC-burn-CAUS=1SG.SUBJ-CIRC  
'I managed / was able to get it lit.' (St'át'imcets, Davis et al. 2007:21)

(43) *ka-gwél-s=kan-a*                      *ta=ngúy'tten=a*  
CIRC-burn-CAUS=1SG.SUBJ-CIRC DET=bed=EXIS  
'I accidentally set my bed on fire.' (Davis et al. 2007:22)

## Cross-linguistic comparison: no ambiguity for *der*-verbs – II

- ▶ **Restriction to intentional actions:** *der*-verbs cannot express involuntary or accidental actions

(44) #*Der Alex ist gestolpert und hat den Tisch um-der-worfen.*  
the Alex is stumped and has the table over-der-thrown

(45) *Der Alex hat den Christbaum an-der-zündet.*  
the Alex has the Christmas.tree der-set.on.fire

(ONLY: 'Alex managed to set the Christmas tree on fire.')

(NOT: 'Alex accidentally set the Christmas tree on fire.')

- ⇒ no full correspondence with the verbal forms in St'át'imcets, Malagasy, and Tagalog
- ⇒ compare only the ability/*manage*-like uses



## Cross-linguistic comparison: *manage*-like interpretation

- ▶ **Question:** How similar are the ability/*manage*-like interpretations across St'át'imcets, Malagasy, Tagalog and Bavarian German?
- ▶ **We show:**
  - The *manage*-like meaning of *der*-verbs differs from the corresponding.
  - We lack data for a conclusive comparison with Tagalog AIA-forms; the semantics proposed by Alonso-Ovalle and Hsieh (2017, 2018) for the Tagalog data does not fit our analysis of *der*-verbs.

## St'át'imcets *ka-...-a* vs. *der*-verbs

- ▶ **Davis et al. 2007, 2009:** sentences describing past episodic situations have an *actuality implicature* that can be cancelled

[Context (given in St'át'imcets): I was sick. I had a sore throat, so I couldn't swallow anything. Then I began to get better.]

- (46) *ka-q'é-m-s=kan-a* *aylh n-kál'wat=a,*  
 CIRC-swallow-CAUS=1SG.SUBJ-CIRC then 1SG.POSS-medicine=EXIS  
*t'u7 cw7áoz=t'u7 múta7 kw=en=s=xát'-min',* *niłh*  
 but NEG=ADD again DET=1SG.POSS=NOM=want-RED FOC  
*s=7ús-ts-an*  
 NOM=throw.out-CAUS-1SG.ERG  
 'I was able to swallow my medicine, but I didn't want it any more, so I  
 threw it out.' (↗ speaker swallowed the medicine)

- ▶ **We have seen:** *der*-verbs in past tense always imply that the action was performed

## Malagasy *maha-* vs. *der-*verbs – I

- ▶ Paul et al. 2015, 2016: verbs formed with the Malagasy prefix *maha-* have an *actuality entailment* in past episodic sentences that disappears in present tense

(47) #*Nahasambotra alika io zaza io nefa faingana loatra ilay alika ka tsy azony.*  
 pst.aha.catch dog dem child dem but fast too def dog c  
 neg do.3

'This child was able to catch a dog, but it was too fast, so it didn't get caught by him.'  
 (Paul et al. 2016:353)

(48) *Mahasambotra alika io zaza io nefa faingana loatra ity alika ity aha.catch dog dem child dem but fast too dem dog dem ka tsy azony.*  
 c neg

'This child is able to catch a dog, but this dog is too fast, so it isn't caught by him.'  
 (Paul et al. 2016:354)

⇒ comparable to abilitative *can*

## Malagasy *maha-* vs. *der-*verbs – II

- ▶ *der-*verbs can be used in episodic sentences in the present tense if the sentence is used with narrative present tense

(49) *Das Kind der-fangt einen Hund.*  
the child der-catches a dog  
'The child manages to catch a dog.'

- ▶ These sentences entail that the action is (successfully) performed:

(50) #*Das Kind derfangt einen Hund, aber der ist zu schnell und entwischt.*  
the child der-catches a dog but he is too fast and escapes  
(≈ #'The child manages to catch a dog, but it is too fast and escapes.')

## Tagalog AIA-forms vs. *der*-verbs – I

- ▶ **Alonso-Ovalle and Hsieh (2017, 2018):** perfective Tagalog AIA-forms entail that the action described by the verb happened

(51) #*Na-i-tulak ni Ben ang bato, pero hindi ito*  
 AIA.PFV-CV-push GEN Ben NOM rock but NEG this  
*g<um>alaw dahil napaka-bigat nito.*  
 <AV.NTL.PFV>move because very-heavy this.GEN  
 #'Ben managed to push the rock, but it didn't move because it was so heavy.'

(Alonso-Ovalle and Hsieh, 2017:80)

- ⇒ no parallel data for other tenses provided
- ⇒ full comparison with inference pattern of *der*-verbs impossible
- ⇒ look at semantic analysis proposed for AIA-form

## Tagalog AIA-forms vs. *der*-verbs – II

- ▶ **Alonso-Ovalle and Hsieh (2017:84):** the truth-conditional contribution of AIA-forms is the same as that of the neutral verbal forms  
 ⇒ AIA-marking has no effect on the asserted content
- ▶ **Not an adequate assumption for *der*-verbs:** different behavior in combination with causal clauses

(52) *Der Alex hat das Schnitzel der-essen, #weil er den Koch nicht beleidigen wollte.*  
 the Alex has the schnitzel der-eaten because he the cook not  
 insult wanted

(53) *Der Alex hat das Schnitzel gegessen, weil er den Koch nicht beleidigen wollte.*  
 the Alex has the schnitzel eaten because he the cook not  
 insult wanted  
 'Alex ate the schnitzel because he did not want to insult the cook.'

## Summary

- ▶ Bavarian *der-* can be used to form complex verbs that are best paraphrased with *manage*
- ▶ *der*-verbs form complex achievement predicates denoting a boundary of an eventuality
- ▶ *der*-verbs convey additional projective content concerning the agent's commitment and the difficulty of the task
- ▶ the denotation of *der*-verbs plausibly differs from that of all three similar verbal forms in other languages

# Thank you!

We would like to thank our friends and families for acting as our native speaker consultants. We also thank Berit Gehrke and the audience at Event Semantics 2020 for helpful comments and discussion.



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## Other types of (circumstantial) possibility modals

### skill-*can*

- (54) a. *Die Amy kann Trompete spielen.*  
the Amy can trumpet play  
'Amy can play the trumpet.'  
b. #*Die Amy der-spielt Trompete.*  
the Amy der-plays trumpet

### Circumstantial-*can*

- (55) a. Hier können Hortensien wachsen.  
here can hydrangeas grow  
'Hydrangeas can grow hear.'  
b. #*Hier der-wachsen Hortensien.*  
here der-grow hydrangeas

## Appendix: other adverbials

- (56) *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.'
- (57) *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.'

## 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.

- (58) *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.'*

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

- (59) 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.

- (60) *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

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