

Adjectival passives and event kinds

Berit Gehrke (Universität Pompeu Fabra)

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1 Introduction

German distinguishes between so-called verbal/eventive and adjectival/stative passives by auxiliaries (Kratzer 1994, 2000; Rapp 1996; Maienborn 2007, among others):

- *werden* ‘become’ with verbal passives ((1-a)) (BECOME-passives)
- *sein* ‘be’ with adjectival passives ((1-b)) (BE-passives)

- (1) a. Die Reifen **werden** aufgepumpt.
the tires become up-pumped
‘The tires are being inflated.’
b. Die Reifen **sind** aufgepumpt.
the tires are up-pumped
‘The tires are inflated.’

(example after Kratzer 2000)

English does not employ different auxiliaries but is generally assumed to make the same distinction (cp. Embick 2004; Emonds 2006, and literature cited therein) (see also Dubinsky and Simango 1996 for Chichewa; Anagnostopoulou 2003 for Greek; Travis 2005a,b for Malagasy).

Traditional view (Wasow 1977; Bresnan 1982; Borer 1984; Levin and Rappaport 1986):

- Adjectival passives are copula-adjective constructions; the participle is derived in the lexicon.
- Verbal passives are periphrastic verb forms with an auxiliary; the participle is derived in the syntax (or in the lexicon under lexicalist approaches, such as Bresnan and L&R).
- (Both constructions are derived syntactically in Distributed Morphology approaches, such as Anagnostopoulou 2003; Embick 2004, but also in Emonds 2006.)

German BE-passives in recent accounts:

- Event-related modifiers with BE-passives ((2)):

- (2) a. Der Brief ist mit roter Tinte geschrieben.
the letter is with red ink written
‘The letter is written with red ink.’
b. Das Haar war schlampig gekämmt.
the hair was sloppily combed
‘The hair was combed in a sloppy manner.’

⇒ Possibility of phrasal adjectivisation of VPs (Kratzer 1994, 2000; Rapp 1996)

⇒ Such modifiers are merely pragmatically licensed (Schlücker 2005; Maienborn 2007).

- (Different kinds of) more fine-grained distinctions among adjectival passives:
 - Lexical vs. phrasal adjectivisation (Kratzer 1994, 2000; Rapp 1996)
 - Target state vs. resultant state (Kratzer 2000) (see also Anagnostopoulou 2003)
 - Resultative vs. stative (in English) (Embick 2004) (see also Travis 2005a,b)

This paper

- Semantic classification of BE-passives based on the difference between event kinds and tokens
- Discussion of modification facts to distinguish between these different classes

2 German BE-passives

- (More or less) general agreement:
 - The participle is not verbal but adjectival.
 - The participle expresses the result or outcome of an event.
- *NB*: BE can be ambiguous between a copula (as in BE-passives) and a (perfect) auxiliary:
 - With anticausative/inchoative variants of transitive verbs ((3-b));
 - (Probably) not with other unaccusatives ((4)).¹

- (3) a. Diana (zer)brach das Glas. — Das Glas (zer)brach.
Diana broke the glass — the glass broke
'Diana broke the glass.' — 'The glass broke.'
- b. Das Glas ist gebrochen/zerbrochen.
the glass is broken
'The glass is/has broken.'
- (4) a. Der See ist zugefroren.
the lake is TO-frozen
'The lake is?/has? frozen solid.'
- b. Tom ist in Hamburg angekommen.
Tom is in Hamburg arrived
'Tom *is / has arrived in Hamburg.'

2.1 BE-passives as copula-adjective constructions

(Kratzer 1994, 2000; Rapp 1996, 1997; von Stechow 1998; Maienborn 2007, 2009)²

- A stative property is ascribed to an individual, which is the internal ('theme') argument of the underlying verb.
- Kratzer (2000): The participle morphology licenses the absence of verbal inflection, but is in itself meaningless (see also von Stechow 1998).
 - Lack of verbal inflection implies lack of an external argument (Kratzer 1994, 2000).
- The participle is turned into an adjective by zero-affixation ((5)) (following Lieber 1980).

- (5) COP [_{AP} [_A [_{VPart} geöffnet] ∅]]

¹Based on the compatibility with *since*-adverbials, Gese et al. (2008) claim that unaccusatives derive BE-passives as well. However, if compatibility with *since*-adverbials in German is a criterion for the status of a BE+participle construction as a BE-passive, we would have to extend the notion of BE-passives to those HAVE-perfects which allow *since*-adverbials, namely under the resultative meaning component of the present perfect (see von Stechow 2002, for examples and discussion). Nevertheless, also von Stechow (1998) briefly notes that adjectival passives are possible with some unaccusative participles. Furthermore, Bresnan (1982) proposes that also perfect participles can be adjectivised, in particular with unaccusatives.

²Verbal analyses have been proposed for German as well (e.g. Helbig 1987; Leiss 1992); see also Emonds (2006) for such a view on English adjectival passives.

- BE-passives are not generally blocked by the existence of primary adjectives ((6)) (examples from Maienborn 2009).

- (6) a. Die Schublade ist geöffnet / offen.
the drawer is opened / open
b. Die Schublade ist geleert / leer.
the drawer is emptied / empty

2.2 Difference between BE-passives and copula constructions with primary adjectives

- The stative property has to be recovered from the event structure licensed by the underlying verb.
→ Input requirements: Only verbs which license an event structure with a stative component, ascribed to one of their arguments, should be able to derive BE-passives.

- BE-passives are fully acceptable with transitive **change-of-state verbs** which have a lexically specified consequent state (in the sense of Moens and Steedman 1988) ((1-b), (7)).

- (7) a. Die Tür ist geöffnet / geschlossen.
the door is opened / closed
b. Der Antrag ist eingereicht.
the application is submitted
c. Die Lampe ist repariert.
the lamp is repaired

- With **activity** ((8), (9)) and some **state predicates** ((10), though see (11), below), BE-passives are acceptable only in certain contexts (b. examples from Maienborn 2009) (see also Kratzer 2000).

- (8) a. ?Die Katze ist gestreichelt.
the cat is stroked
b. Anna hat ihre Nachbarspflichten erfüllt: Der Briefkasten ist geleert, die Blumen sind gegossen, und die Katze ist gestreichelt.
Anna has her neighbour-duties fulfilled the mail-box is emptied the flowers are watered and the cat is stroked
'Anna has done her neighbourly duties: the mailbox is emptied, the flowers are watered and the cat is stroked.'
- (9) a. ?Das Manuskript ist zitiert.
the manuscript is cited
b. Das Manuskript ist von Chomsky zitiert.
the manuscript is by Chomsky cited
'The manuscript is cited by Chomsky.'³
- (10) a. ?Die Antwort ist gewusst.
the answer is known
b. Ist die Antwort gewusst oder geraten?
is the answer known or guessed

³A German PP headed by *von* 'of, from' in these contexts is usually translated as a *by*-phrase into English. However, since it is generally claimed for English that *by*-phrases are not possible with adjectival passives, it is not fully clear whether (a) this claim is simply wrong (exceptions for English exist; for German, see section 4.1), or (b) whether German *von*-phrases are not fully equivalent to English *by*-phrases.

2.3 BE-passives express an opposite stative property (on some scalar dimension)

- Even with change-of-state verbs, BE-passives are best if the state expresses some opposite state.
 - E.g. (7-a) is rather ‘neutral’ and only expresses the stative property of the door being open/closed.
 - In contrast, (7-b) and (7-c) have an additional ‘the job is done’ flavour (in the sense of Kratzer 2000).
- Only verbs that lexically specify an opposite state are fully acceptable in BE-passives.
 - Change-of-state verbs, whose internal argument undergoes a change of state and as a result is the bearer of a consequent state
 - State verbs that allow an inchoative interpretation; cf. contrast between (10-a) and the fully acceptable BE-passives of the psych predicates in (11).

(11) Marie ist genervt / verärgert / amüsiert.
 Marie is annoyed / angered / amused

- Other verbs: A BE-passive is only possible if an opposite state can be derived contextually (see also Maienborn 2009, for similar observations).
 - Temporal scale in (8-b): The cat is now in the state it was supposed to be in, opposition between the job not being done yet and the job being done.
 - Scale of quality in (9-b): The manuscript is cited by Chomsky and not just by some undergrad student in a term paper.
 - Scale of quality in (10-b): The answer is more certain (more likely to be correct), because it is known and not just guessed.

2.4 Different types of BE-passives

- Temporal scalar dimension (the state expressed by the construction is a consequent state opposed to some state the subject has previously been in).
- Qualitative scalar dimension (the state expressed by the construction is a state of a particular qualitative kind as opposed to some other state on that scale that the subject could be in).

2.4.1 Target state vs. resultant state passives (Kratzer 2000)⁴

- Distinguished by their (in)compatibility with modification by *immer noch* ‘still’:

(12)	a.	Die Reifen sind (immer noch) aufgepumpt. the tires are (still) up-pumped ‘The tires are still pumped up.’	TARGET STATE PASSIVE
	b.	Das Theorem ist (*immer noch) bewiesen. the theorem is (*still) proven ‘The theorem is proven.’	RESULTANT STATE PASSIVE

⁴See also Kratzer (1994). The terminology is adopted from Parsons (1990), though Kratzer seems to have a more narrow notion of ‘target state’. Both are distinct from verbal (eventive) passives, since they lack agent implication (see also Gehrke and Grillo 2009, and literature cited therein).

- **Target state passives**

- Characterise reversible, transitory states
- Are only possible with category-neutral stems that have both a Davidsonian event argument and a target state argument (unspecified for syntactic category because they can be used to build verbs or adjectives)
- Can be lexical ((13)) or phrasal ((14)) (example: *(das Boot) aufgepumpt* ‘(the boat) inflated’) (already in Kratzer 1994: Possibility of lexical and phrasal adjectivisation)

(13) *Target state passive, lexical case*

Stem: $\lambda x \lambda s \lambda e [\mathbf{pump}(e) \& \mathbf{event}(e) \& \mathbf{inflated}(x)(s) \& \mathbf{cause}(s)(e)]$

Stativiser: $\lambda \mathbf{R} \lambda s \exists e \mathbf{R}(s)(e)$

Output: $\lambda x (\lambda \mathbf{R} \lambda s \exists e \mathbf{R}(s)(e) (\lambda s \lambda e [\mathbf{pump}(e) \& \mathbf{event}(e) \& \mathbf{inflated}(x)(s) \& \mathbf{cause}(s)(e)]))$
 $= \lambda x \lambda s \exists e [\mathbf{pump}(e) \& \mathbf{event}(e) \& \mathbf{inflated}(x)(s) \& \mathbf{cause}(s)(e)]$

(14) *Target state passive, phrasal case*

Stem+object: $\lambda s \lambda e [\mathbf{pump}(e) \& \mathbf{event}(e) \& \mathbf{inflated}(\mathbf{the\ boat})(s) \& \mathbf{cause}(s)(e)]$

Stativiser: $\lambda \mathbf{R} \lambda s \exists e \mathbf{R}(s)(e)$

Output: $\lambda s \exists e [\mathbf{pump}(e) \& \mathbf{event}(e) \& \mathbf{inflated}(\mathbf{the\ boat})(s) \& \mathbf{cause}(s)(e)]$

- **Resultant state passives**

- Refer to states resulting from an event, which is over by the time of reference; the state ‘has to hold forever after’.
- Can be derived from category-neutral stems as well as from verbs (as long as they allow a ‘the job is done’ reading)
- Are always phrasal
- Have perfect aspect, since the derivation involves an aspectual operator ((15)).

(15) *Resultant state passive*

Stem+object: $\lambda e [\mathbf{prove}(\mathbf{the\ theorem})(e)]$

Stativiser: $\lambda \mathbf{P} \lambda t \exists e [\mathbf{P}(e) \& \tau(e) < t]$

Output: $\lambda t \exists e [\mathbf{prove}(\mathbf{the\ theorem})(e) \& \tau(e) < t]$

→ Very much like a passive perfect construction; but: no vP (no implied agent), true stativity

2.4.2 Resultatives vs. statives (Embick 2004)

- **Resultatives**

- Refer to a state that is the result of a grammatically represented event (requires a state resulting from an event; see Kratzer 1994);
- The derivation involves an additional fientive v head (similar in characterisation to BECOME in Dowty 1979, or similar operators).

- **Statives**

- Refer to a simple state, much like a simple ‘adjective’;
- The derivation involves the immediate embedding of a Root under an adjectivising head.

- (16) a. The door was opened.
 (i) Someone opened the door. EVENTIVE PASSIVE
 (ii) The door was in a state of having become open. RESULTATIVE
 b. The door was open. STATIVE

- The difference between resultatives and statives can be morphologically expressed in proper adjective-participle pairs (e.g. *open* vs. *opened*), but can also remain morphologically indistinct (e.g. *closed*) ((17)).⁵

- (17) a. The package remained carefully *open / opened // closed.
 b. This door was built open / *opened // closed.

- Diagnostics to differentiate statives from resultatives, replicated with German data:

- Only resultatives allow modification by manner (and other) adverbials ((18)).

- (18) a. Das Paket blieb sorgfältig geöffnet.
 the packages remained carefully opened
 b. *Das Paket blieb sorgfältig offen.
 the package remained carefully open
 c. Das Paket blieb sorgfältig geschlossen.
 the packages remained carefully closed

- Only statives can appear after a verb of creation, such as *build*, *create*, *make* ((19)).

- (19) a. Die Tür war offen gebaut.
 the door was open built
 ‘The door was built open.’
 b. *Die Tür war geöffnet gebaut.
 the door was opened built
 c. Die Tür war geschlossen gebaut.
 the door was closed built

- (In)ability to serve as resultative secondary predicates ((20))

- (20) a. Hans trat die Tür offen / *geöffnet.
 John kicked the door open / opened
 b. Bill trank das Glas leer / *geleert.
 Bill drank the glass empty
 c. Hans trat die Tür *geschlossen / zu.
 John kicked the door closed / TO

NB: Unlike in English, even other participles are quite bad in these contexts ((20-c)).

2.4.3 Own assessment

- The distinctions of Kratzer and Embick are not really the same; it rather seems that Kratzer’s two types are subsumed under Embick’s resultatives.
- Both distinctions only take into account a temporal scale, but ignore a qualitative scale.
- While Kratzer’s distinction intuitively makes sense, the diagnostics does not seem to be right:
 - Intuitively, the (un-)availability of modification by *still* has more to do with whether or not the consequent state of the event type associated with a verb can be reversible.
 - The verbs that allow *still* (e.g. *hidden*, *screwed off*, *evacuated*, *obstructed*) have clear antonyms, whose consequent states express something like a more ‘natural’ state.

⁵This has also been noted in Parsons (1990).

- Other verbs do not allow *still* for various reasons:
 - * Verbs that do not lexically encode a consequent state (e.g. *greeted*, which is already not so good as a BE-passive, even without the modifier)
 - * Verbs that are derived from adjectives (e.g. *emptied, dried*): The use of the participle to describe the kind of state that Kratzer is after might be blocked by the existence of the adjectives themselves.
- Note: Negation of the participle renders *still*-modification possible ((21)) (see also Schlücker 2005, for similar observations).

- (21) a. Das Theorem ist immer noch unbewiesen.
 the theoreme is still unproven
 ‘The theoreme is still unproven.’
- b. Der Briefkasten ist immer noch ungeleert.
 the mailbox is still unemptied
 ‘The mailbox is still unemptied.’

⇒ BE-passives are fully acceptable when the event structure of the underlying verb contains something like a consequent state, **Parsons’ target state**.

- **Modification of such a state** by *still* is only possible if this state can be seen as **temporary** (and a less natural state for the subject to be in) and **reversible**.
- This is possibly what Parsons calls a ‘**transitory state**’ elsewhere, though this does not have to be the opposite of his understanding of a resultant state (with all perfect constructions).⁶

2.4.4 Maienborn’s (2009) account and her take on Kratzer’s distinction

- BE-passives are always pragmatically licensed and possible across all verb classes (with a few lexical exceptions) (see also Maienborn 2007).
- Unlike nonderived adjectives, which assign ‘a lexically coded property, which has a fixed place in the subject referent’s property space’ ((22-a)), BE-passives ascribe a ‘pragmatically salient *ad hoc* property, conceived as resulting from the event referred to by the participle’ ((22-b), (23)).

- (22) a. Das Manuskript ist neu.
 the manuscript is new
 $\exists s [s: \mathbf{new}(\mathbf{the\ manuscript})]$
- b. Das Manuskript ist eingereicht.
 the manuscript is submitted
 $\exists s [s: \mathbf{Q}(\mathbf{the\ manuscript}) \wedge \mathbf{result}(e, s) \wedge \mathbf{submit}(e)]$

- (23) Adjectival \odot -affix: $\lambda P \lambda x \lambda s \exists e [s: \mathbf{Q}(x) \wedge \mathbf{result}(e, s) \wedge P(e)]$

- The free variable **Q** stands for the property that holds for the subject referent *x* in a state *s*.
- **Q** is further restricted as resulting from the verbal event *e*. The grammar does not supply any more information than that about the actual kind of property.

- Background knowledge for (22-b): Possible stages and gradings for scientific papers: ‘A manuscript that is submitted is better than a manuscript that isn’t finished yet or a manuscript that is published in some less prestigious place’.

⁶Similar remarks hold for the more restricted availability of modification of perfect tenses by *since*-adverbials in German (see also footnote 1).

- A BE-passive is pragmatically licensed if the context provides a contrasting alternative state s' : A contextually salient contrasting state s' may differ from s with respect to either the temporal or the qualitative dimension.
- Resultant vs. target state passives:
 - Resultant state reading ((24-a)): Post state of a submitting event; the context provides a salient alternative state s' that precedes s and in which x does not have the property Q .
 - Target state reading ((24-b)): The manuscript belongs to the class of submitted papers; s' exemplifies a contextually salient property Q' that is distinct from Q .

- (24) Das Manuskript ist eingereicht ...
 the manuscript is submitted ...
 'The manuscript is submitted ...'
 $\exists s [s: \mathbf{Q}(\text{the manuscript}) \wedge \mathbf{result}(e, s) \wedge \mathbf{submit}(e)] \dots$
- a. (... jetzt können wir uns an den Projektantrag machen.)
 now can we us to the project-proposal make
 "... now we can turn to the project proposal"
 $\dots \wedge \mathbf{contrast}(s, s') \wedge s': \neg \mathbf{Q}(x) \ \& \ s' < s$
- b. (... aber nicht angenommen / veröffentlicht / ...)
 but not accepted / published / ...
 '... but not accepted / published / ...'
 $\dots \wedge \mathbf{contrast}(s, s') \wedge s': \mathbf{Q}'(x)$

NB: Maienborn notes that Kratzer's (2000) understanding of the target state reading is more narrow, restricting it to only those target states that are reversible.

Maienborn's uniform account seems too weak:

- Maienborn points out that the state of BE-passives is evaluated with respect to some opposite state, but this does not follow directly from her account in (23).
- Not all BE-passives display pragmatic effects or have an 'ad hoc' flavour:
 - BE-passives are fully acceptable with change-of-state verbs lexically specifying a consequent state, across all contexts and without additional pragmatic effects (see also Welke 2007); e.g. there are no such effects with *geöffnet* 'opened'.
 - The context dependency is only relevant with BE-passives in combination with other verbs.

⇒ There are input requirements; when these are not met, the construction can still be pragmatically licensed (possibly involving some kind of coercion of the event type).

2.5 The event is only implicit; BE-passives involve event kinds.

- Since the participle is derived from a verb, there should be an event.
 - The underlying event can be modified by **event-related modifiers**, such as instrumentals, manner modifiers, *by*-phrases ((2), (9-b)).
 - However, event-related modification is only possible if it pertains to the result of an event (this has already been noted in Rapp 1996).
 - In particular, only modifiers are allowed that relate to agents/causers/instruments that still have an impact / are still 'visible' in the consequent state, but not others with no relevance to the event's outcome (unlike with verbal passives).

The event cannot be temporally modified.

- BE-passives are incompatible with temporal frame adverbials ((25)) (von Stechow 1998).

- (25) a. *Der Computer ist vor drei Tagen repariert.
the computer is before three days repaired
(‘The computer is repaired three days ago.’)
b. Der Computer ist seit drei Tagen repariert.
the computer is since three days repaired
‘The computer has been in a state of being repaired since three days.’

- The BE-passives in (25) are statements about the present (not about the past, as with perfect constructions): The computer is in the result state of a repairing.
- This contrasts with present perfect verbal passives, which make statements about the past.⁷
- von Stechow: Frame adverbs have no access to the event time (the time of the repairing).

⇒ **There is no time / temporal index for the event; the event is only implicit.**

- A modifier like *recently* cannot modify the underlying event but only the state ((26)).

- (26) Die Tür war kürzlich geöffnet.
the door was recently opened.
The door was in the opened state recently, but probably is no longer.
(*NOT*: The door is in the opened state, the opening having taken place recently.)

⇒ Again, **there is no time / temporal index for the event.**

- This contrasts with Embick’s (2004) observations for English, which partially hold for German participles in prenominal position as well:
 - An adverbial like *recently* is possible with a stative, but a resultative with the same adverbial has an additional reading ((27)).

- (27) a. die kürzlich offene Tür
the recently open door
The door was open at a recent point in the past and (probably) is no longer open.
b. die kürzlich geöffnete Tür
the recently opened door
(i) The door was in the opened state recently, but probably is no longer.
(ii) The door is in the opened state, the opening having taken place recently.

- With statives only one state is available for modification by *recently*, whereas with resultatives, the state and the prior event are available for modification.
- Unlike commonly assumed for English, German attributive participles can be either verbal or adjectival (see Rapp 2001, for discussion).

⇒ **BE-passives refer to event kinds but not to events that actually took place.**

(A time can only be associated with tokens; here: with a state token.)

⁷See also Rapp (1996); Kratzer (2000); Maienborn (2007) and literature cited therein for arguments against treating BE-passives as an ellipsis of a verbal passive perfect construction.

3 A preliminary proposal

- BE-passives involve existential quantification over event *kinds*.

(28) **Three readings of BE-passives**

- The participle refers to the consequent state of an event token that took place:
 $\lambda P \lambda x \lambda s \exists e, e_k, s_k, s'_k [P(e_k) \wedge \mathbf{Result}(e_k, s_k) \wedge \mathbf{R}(e, e_k) \wedge s'_k \supset \subset s_k \wedge \mathbf{R}(s, s_k)]$
- The participle refers to the instantiation of a result state kind of an event kind:
 $\lambda P \lambda x \lambda s \exists e_k, s_k, s'_k [P(e_k) \wedge \mathbf{Result}(e_k, s_k) \wedge s'_k \supset \subset s_k \wedge \mathbf{R}(s, s_k)]$
- The participle is a proper adjective, expressing a stative property: $\lambda P \lambda x. P(x)$

NB: **R** is Carlson's (1977) realisation relation; $\supset \subset$ is used to express an adjacency relation.

- The state in BE-passives is a state evaluated with respect to an opposite state (on some scalar dimension, which is not necessarily temporal).
 - The most straightforward opposition is an event structural one with predicates involving a BECOME component (the scalar dimension is temporal in the course of the derivation).

(29) $[\mathbf{BECOME} \phi]$ is true at I iff there is an interval J containing the initial bound of I such that $\neg\phi$ is true at J and there is an interval K containing the final bound of I such that ϕ is true at K .
Dowty (1979, 140)

(30) *Informal event semantics of BECOME (Beck 2005, 7)*
 $[[\mathbf{BECOME}]] (P)(e) = 1$ iff e is the smallest event such that P is not true of the prestate of e but P is true of the result state of e .

- In other cases, an opposite state has to be contextually licensed (the scalar dimension could be one of quality) (similar to Maienborn 2007, 2009).

→ Some more abstract version of BECOME might be part of the semantics of this construction (similar to Embick 2004), but one that is neutral with respect to the underlying scale.

NB: von Stechow's (1998) RESBEC operator ((31-a)) will not do, since we only get a temporal scale then (his general structure of BE-passive participles is given in (31-b)).

(31) a. $\mathbf{RESBEC} = \lambda P \lambda t \lambda w \exists e [e \supset \subset t \wedge \mathbf{BECOME}(\mathbf{P})(e)(w) \wedge \mathbf{P}(t)(w)]$,
P a stative proposition
 b. $[_{AP} A [_{PartP} \text{ge-t } [_{vP} \mathbf{RESBEC} [_{LP}]]]]$

Distinction between participles as proper adjectives ((31-c)) and (31-a,b)

- Reminiscent of Embick's (2004) 'stative' vs. 'resultative' participles, respectively.
- (28) captures the insight that one class of adjectival passives involves eventiveness and a transition into a consequent state, whereas the other is a proper adjective.

Further subdivision of Embick's resultative participles:

- Reminiscent of Kratzer's (2000) target vs. resultant state passives, but essentially quite different
- (28) rephrases the distinction by refuting to the difference between event kinds and event tokens:
 - Consequent states of actual events that took place: similar to a perfect of result.
 - The states are merely of the correct kind to have resulted from an event of some type.

3.1 Independent motivation for event types

- Event types are natural to expect if we assume:
 - Events form a subsort in our ontology of (token) individuals (Reichenbach 1947; Davidson 1967; Parsons 1990);
 - Kinds or types form another subsort in that ontology (Carlson 1977); and
 - As a rule, any token in the ontology should be the realisation of some type in that ontology.
- Event types have an analog in e.g. the Situation Semantics notion of event type (Barwise and Perry 1983), though the formal details are quite different.
- Empirical arguments for event types as an ontological category have been made in e.g. Landman and Morzycki (2003); Ginzburg (2005); Gehrke and McNally (to appear).
- In addition, Neo-Davidsonian view: Events can be structurally complex, and this holds for event types and event tokens; therefore it should be possible to have subevent types as well.

3.2 Some predictions of the proposal concerning event-related modifiers

- Proper adjectives ((28-c)) should not allow event-related modifiers.
- Modifiers available with (28-a) and (28-b) should be relevant to the consequent state of an event.
 - The modifiers available with consequent states of event tokens in (28-a) should relate more to the actual result or the actual process leading to a result (modifiers relating to the ‘the job is done’ reading). → like Maienborn’s temporal dimension
 - The modifiers available with consequent states associated with event kinds in (28-b) focus on the type of event which could have brought about the state, which might be typical with certain manner adverbials ((32)). → like Maienborn’s qualitative dimension

- (32) a. Der Brief ist mit Roter Tinte geschrieben (und nicht mit BLAUer Tinte).
the letter is with red ink written (and not with blue ink)
‘The letter is written with red (and not blue) ink.’
- b. Der Brief ist mit roter TINte geschrieben (und nicht mit Bleistift).
the letter is with red ink written (and not with pencil)
‘The ltter is written with red ink (and not with a pencil).’

⇒ Contra Maienborn, such modifiers are then semantically, not just pragmatically licensed.

- Kratzer (2000): Modification by *still* is sometimes only possible with a manner modifier ((33)).
 - Kratzer: The modifier makes available a target state not provided by the verb itself.
 - Alternative possibility: The manner modifier evokes reference to an event kind, and this renders the BE-passive with *still* possible.

- (33) a. *Meine Haare waren immer noch geschnitten.
my hairs were still cut
- b. Meine Haare waren immer noch schlampig geschnitten.
my hairs were still sloppily cut
‘I still had a sloppy haircut.’

4 Further empirical support

4.1 Different types of *von*-‘by’-phrases with BE-passives ((28-a) vs. (28-b))

Schlücker (2005): Two types of *von*-phrases

- VP-adjuncts ((34))

- Do not form a prosodic unit with the participle (following Maienborn 2007)
- Neutral stress is on the participle; secondary stress on the modifier (the latter point is not noted in Schlücker; see Hoekstra 1999; Gehrke 2008, for similar facts from Dutch).

- (34) a. weil Peter von dem GeJAmmer genervt ist
because Peter from the lamentation annoyed is
‘because Peter is irritated by the lamentation’ *contrastive*
- b. weil Peter von dem GeJAmmer geNERVT ist
because Peter from the lamentation annoyed is
neutral

- V-adjuncts ((35), (36))

- Form a prosodic unit with the participle
- Neutral stress is on the modifier.

- (35) a. weil die Wände von FEUer geschwärzt sind
because the walls from fire blackened are
‘because the walls are blackened by fire’ *neutral*
- b. weil die Wände von Feuer geSCHWÄRZT sind
because the walls from fire blackened are’
contrastive
- (36) a. weil seine Töchter von der SANGesmuse geküsst sind
because his daughters from the muse of singing kissed are
‘because his daughters are kissed by the muse of singing’ *neutral*
- b. weil seine Töchter von der Sangesmuse geKÜSST sind
because his daughters from the muse of singing kissed are
contrastive

- Behave like other event-related modifiers that are allowed with BE-passives ((37), (38))

- (37) a. weil die Birnen in ROTwein gedünstet sind
because the pears in red wine steamed are
‘because the pears are steamed in red wine’ *neutral*
- b. weil die Birnen in Rotwein geDÜNStet sind
because the pears in red wine steamed are’
contrastive
- (38) a. weil der Brief mit WACHS versiegelt ist
because the letter with wax sealed is
‘because the letter is sealed with wax’ *neutral*
- b. weil der Brief mit Wachs verSIEgelt ist
because the letter with wax sealed is’
contrastive

- Different kinds of complements with the two types of *von*-phrases:
 - VP-adjuncts
 - * The *von*-phrase denotes the agent or direct causer of the underlying event which is often an animate and / or a volitional entity.
 - * Animate entities: Proper names or members of a group denoted by a collective noun, e.g. *Polizist* ‘police-man’
 - * Inanimate entities: Definite uses of mass nouns, e.g. *vom Feuer* ‘by the fire’, or appellatives used definitely, e.g. *von der Bombe* ‘by the bomb’
 - V-adjuncts
 - * The *von*-phrase denotes the theme of the underlying event or an indirect causer and can sometimes be replaced by a *durch*-‘through’-phrase; It often has an instrumental character and provides information about the manner or reason of the event.
 - * Animate entities: Collective nouns, e.g. *von der Polizei* ‘by the police’
 - * Inanimate entities: Generic uses of mass nouns (*von Feuer* ‘by fire’) or indefinite uses of appellatives (*von einer Bombe, von Bomben* ‘by a bomb, by bombs’)
- ⇒ **These observations fit an analysis in terms of event kinds (with V-adjuncts) and event tokens (with VP-adjuncts).**

Some qualifications

- The V-adjuncts discussed by Schlücker are parts of fixed expressions and idioms; e.g. there is no literal ‘verbal’ meaning in (36), in the sense that the muse of singing actually kissed the daughters.
- The VP-adjuncts discussed by Schlücker are good with stative predicates, but mostly questionable with other predicates.
- With these other ‘VP-adjuncts’ I do not share the judgments about the intonation identifying them as VP-adjuncts; if acceptable at all, they rather behave like V-adjuncts, and there is also no secondary stress ((39), Schlücker’s examples, my judgments about stress).⁸

- (39) a. weil der Saal von der Heinrich-BÖLL-Stiftung gemietet ist.
 because the hall from the Heinrich-Böll-foundation rented is
 ‘because the hall is rented by the Heinrich-Böll Foundation’ *neutral*
- b. weil der Saal von der Heinrich-Böll-Stiftung geMIETet ist
 because the hall from the Heinrich-Böll-foundation rented is *contrastive*

⇒ Compositionally integrated *by*-phrases are only acceptable with state predicates (since only with these, the entity denoted by the *by*-phrase pertains to the consequent state, since the state is interpreted as an inchoative state).

⇒ Other *by*-phrases are not compositionally integrated but are rather parts of idioms, or modify the underlying event kind and are therefore pragmatically licensed (this would be in line with Schlücker, Maienborn).

⁸Further syntactic tests to distinguish between V- and VP-adjuncts, mentioned by Schlücker (2005), such as the relative placement (with respect to modifier and participle) of sentence negation, sentence adverbials and floating quantifiers, yield the same results.

4.2 Ambiguity with *un*-prefixation and BE-passives ((28-a), (28-b) vs. (28-c))

- The *un*-negation in (40-a) seems ambiguous (see also Fábregas 2007, for a similar kind of ambiguity with negation of relational adjectives).

- (40) a. Das Haar war ungekämmt.
the hair was uncombed
b. Das Haar war schlampig gekämmt / *ungekämmt.
the hair was sloppily combed / *uncombed

- Expresses the lower part of the scale denoted by the adjective, i.e. the adjectivised participle (like ‘normal’ adjectival negation, e.g. *untidy*).
- Denotes anything which is not included in the event kind denoted by the underlying verb (e.g. no combing has taken place).

- Kratzer (1994, 2000) notes that manner modification is incompatible with *un*-prefixation ((40-b)) and uses this as an argument in favour of phrasal adjectivisation whenever BE-passives combine with event-related modifiers.

- However, the ungrammaticality might have additional reasons:

- Under the ‘proper’ adjectival negation, no modifiers are possible at all (like Kratzer).
- Under the negated event reading, where the entire event is in the scope of the negation, a manner cannot be specified because no event has taken place at all (unlike Kratzer).
- See also Embick’s (2004) observation that an event in the scope of negation cannot be modified by an adverbial that takes scope over the negative ((41)).

- (41) a. John quickly has become the most famous penguin-watcher in the area.
b. *John quickly hasn’t become the most famous penguin-watcher in the area.

4.3 Ambiguity with *again* ((28-a), (28-b) vs. (28-c))

- Restitutive/repetitive ambiguity with *again* and BE-passives ((42)) (von Stechow 1998).

- (42) Der Computer ist wieder repariert.
the computer is again repaired

- Repetitive: presupposes that the computer had been repaired before (this reading is obtained when we stress *wieder*)
- Restitutive: presupposes that the computer had been broken before (it may have been broken for the first time) (nuclear stress on the participle)
- **Again** may modify a property of times or a property of events ((43)).⁹

- von Stechow’s (1998) account:

- (43) **again** is of type $\langle p, p \rangle$.
again = $\lambda P \lambda s \lambda w [P(s)(w) / \& \exists s' [s' < s \& P(s')]$, where *s* is a time, if **P** is a property of times and *s* is an event, if **P** is a property of events.

- (44) a. **Pres the computer** $\lambda x [_{AP} A [_{PartP} \text{RESBEC again } [_{LP} \text{intact}(x)]]]$ RESTITUTIVE
b. **Pres the computer** $\lambda x [_{AP} A \text{ again } [_{PartP} \text{RESBEC } [_{LP} \text{intact}(x)]]]$ REPETITIVE

⁹The part following */&* is the presupposition. A presupposition may contain a bound variable.

4.4 The processing of BE-passives

- Kukina and Claus (2010): Sentence-picture verification task
 - Picture-identification latencies for the depiction of a ‘factual state’ (the initial state of a verbal event, in (45-a): the window being closed) were significantly shorter after sentences with BE-passives ((45-a)) than after sentences with genuine adjectives ((45-b)).
- (45) a. Ralf wäre es lieber, wenn das Fenster geöffnet wäre.
Ralf were it rather if the window opened were
‘Ralf would prefer the window to be opened.’
- b. Ralf wäre es lieber, wenn das Fenster offen wäre.
Ralf were it rather if the window open were
‘Ralf would prefer the window to be open.’
- They conclude that comprehenders have a mental representation of this factual state.
- Note: They used polar change-of-state verbs for this experiment, verbs which are most acceptable in BE-passives.
- Stolterfoht et al. (to appear): Self-paced reading study
 - It takes longer to process (German) BE-passives ((46-a)) than to process BECOME-passives ((46-b)) (or the corresponding constructions with primary adjectives, as in (46-c,d)).
- (46) a. Die Milch war verschüttet und Frau Meier schimpfte.
the milk was spilled and Mrs. Meier scolded
‘The milk was spilled and Mrs. Meier scolded/was scolding.’
- b. Die Milch wurde verschüttet und Frau Meier schimpfte.
the milk became spilled and Mrs. Meier scolded
‘The milk had been spilled and Mrs. Meier scolded/was scolding.’
- c. Die Milch war sauer und Frau Meier schimpfte.
the milk was sour and Mrs. Meier scolded
‘The milk was sour and Mrs. Meier scolded/was scolding.’
- d. Die Milch wurde sauer und Frau Meier schimpfte.
the milk became sour and Mrs. Meier scolded
‘The milk became sour and Mrs. Meier scolded/was scolding.’
- They interpret these results as a result of category conversion, which supposedly adds additional processing costs.
 - However, to me the BE-passive out of context is already a bit marked.
 - Additional processing costs might rather derive from the additional pragmatic effort involved in coercion or pragmatic licensing of the construction.
 - This would be compatible with Maienborn’s overall account, but intuitively this holds only for some predicates; in particular not for those in (45).
- A future task could be to test whether there is a significant difference in the processing of BE-passives between change-of-state verbs and non-change-of-state verbs.

5 Conclusion

- German BE-passives express a state contrasted with an opposite state on some scalar dimension.
- The scale can be interpreted in different ways, yielding different readings of BE-passives.
- A (preliminary) account was proposed to capture the different readings, which made use of the notion of kinds in the domain of eventualities.
- Speculation: Unlike commonly assumed, might it be possible, after all, to ascribe the same semantics to past passive participles across different constructions? For example, do they always denote a (more abstract) opposite state?
 - With adjectival passives: A consequent/opposite state is predicated over the internal argument, no prior process in the semantics, just a state resulting from a change of state, but still associated with the event type (the state meaning is due to the BE-auxiliary).
 - With eventive passives: A consequent state is predicated over the internal argument, resulting from a process (in most cases) (the process meaning is due to the BECOME-auxiliary) (see Gehrke and Grillo 2009, for more details).
 - With perfect tenses: The external argument is in the consequent state of having done something (at least from a diachronic perspective; in many languages perfect tenses have been fully grammaticalised as past tenses).

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