

Stative 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)

- Traditional view (Wasow 1977; Bresnan 1982; Borer 1984; Levin and Rappaport 1986):¹
 - Adjectival passives: Copula-adjective constructions
 - Verbal passives: Periphrastic verb forms
- The underlying event is still accessible: Availability of event-related modifiers ((2)). (Kratzer 1994, 2000; Rapp 1996, 1997; Schlücker 2005; Maienborn 2007, 2009)

- (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.’

- Two views:
 - * 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:
 - 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:

- Restrictions on event-related modification
- Semantic account of BE-passives based on the difference between event kinds and tokens
- Integration of different readings and comparison with previous proposals

¹Also other languages have this distinction, even when they lack morphological differentiation; see, e.g., Embick (2004); Emonds (2006) and literature cited therein, for English; Dubinsky and Simango (1996) for Chichewa; Anagnostopoulou (2003) for Greek; Travis (2005a,b) for Malagasy.

2 German BE-passives

- (More or less) general agreement:
 - The participle is not verbal but adjectival.²
 - The participle expresses the result or outcome of an event.
- BE-passives as copula-adjective constructions (Kratzer 1994, 2000; Rapp 1996; von Stechow 1998; Maienborn 2007): A stative property is ascribed to an individual.³
- BE-passives are not generally blocked by primary adjectives ((3)) (examples from Maienborn 2009).

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

2.1 The contribution of the underlying verb in BE-passive constructions

- Relation to the **argument structure** of the underlying verb:
 - The stative property is ascribed to the **internal (theme) argument** of the underlying verb.
 - The **external argument** is completely absent ((4), (6-a)).⁴
This contrast with BECOME-passives, where (even) the (implicit) external argument is syntactically active ((5), (6-b)) (see also Gehrke and Grillo 2009, and literature cited therein).

- (4) a.???Der Reifen war aufgepumpt, um die Fahrt fortsetzen zu können.
the tire was inflated in order the journey continue to can
b.???Das Buch war mit Absicht / betrunken geschrieben.
the book was with purpose / drunk written

- (5) a. Der Reifen wurde aufgepumpt, um die Fahrt fortsetzen zu können.
the tire became inflated in order the journey continue to can
'The tire was (being) inflated in order to continue the journey.'
b. Das Buch wurde mit Absicht / betrunken geschrieben.
the book became with purpose / drunk written
'The book was written on purpose / drunk.'

(6) *Kratzer's (1994) examples*

- a. Das Kind war schlampig gekämmt.
the child was slopp(il)y combed
'The child was combed in a sloppy manner.' ±*reflexiv*
(i) Someone (else) (has) combed the child.
(ii) The child (has) combed his/herself.
- b. Das Kind wurde schlampig gekämmt.
the child became slopp(il)y combed
'The child was combed in a sloppy manner.' -*reflexiv*
(i) Someone (else) (has) combed the child.
(ii) *NOT*: The child (has) combed his/herself.

²There are a few verbal analyses of BE-passives (e.g. Helbig 1987; Leiss 1992); see also Emonds (2006) for English.

³Following Lieber (1980), it is generally assumed that the participle is turned into an adjective by zero-affixation:

i. COP [_{AP} [_A [_{VPart} geöffnet] ∅]].

⁴According to Kratzer (1994, 2000), the participle morphology licenses the absence of verbal inflection, but is in itself meaningless (see also von Stechow 1998), and the lack of verbal inflection implies lack of an external argument.

- The stative property is recovered from the **event structure** licensed by the underlying verb.

Input requirements (first attempt): Only verbs which license an event structure with a **stative component** should be able to derive BE-passives (this is basically the hypothesis in Rapp 1996).

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

- With **non-change-of-state verbs**, BE-passives are acceptable only in certain contexts ((8)-(10), b. examples from Maienborn 2009) (see also Kratzer 2000):

- * With ‘activities’ (and/or semelfactives and performative verbs) ((8), (9)), this is to be expected: The event structure does not contain a stative component.
- * However, this also holds for some state predicates ((10), though see (11), below), which is not expected if all we need is a stative component.

- (8)
- #Die Katze ist gestreichelt.
the cat is petted
 - 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 petted
‘Anna has done her neighbourly duties: the mailbox is emptied, the flowers are watered and the cat is petted.’
 - Die Katze ist ??(genug/ fertig) gestreichelt.
the cat is enough/ ready/done petted
‘The cat has been petted enough / (Someone) is done petting the cat.’
(example from Rapp 1996, 259)

- (9)
- #Das Manuskript ist zitiert.
the manuscript is cited
 - Das Manuskript ist von Chomsky zitiert.
the manuscript is by Chomsky cited
‘The manuscript is cited by Chomsky.’⁵

- (10)
- #Die Antwort ist gewusst.
the answer is known
 - Ist die Antwort gewusst oder geraten?
is the answer known or guessed

- Many speakers do not even accept (9-b) and (10-b) with the additional context, whereas (8-b) is accepted by everyone.⁶

⁵A 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 below); or (b) whether German *von*-phrases are not fully equivalent to English *by*-phrases.

⁶Carla Umbach (p.c.) remarks that it is strange to use the verb *wissen* ‘know’ with the internal argument *Antwort* ‘answer’; however, the more natural *kennen* ‘know’ is still not good in the BE-passive.

Hypothesis I (lexical): Only verbs that lexically specify a **consequent state** derive BE-passives.

- The subject is always the internal (theme) argument of the underlying verb: Changes of state, as a rule, affect theme arguments.
 - **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** (re-?) 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

- However, even with change-of-state verbs, BE-passives are most natural 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).

Hypothesis II (pragmatic): Only verbs that lexically specify a state which can be interpreted as an **opposite state** are fully acceptable in BE-passives.

- **Non-(change-of-)state verbs**: A BE-passive is only possible if an opposite state can be derived contextually:
 - 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.

(see also Maienborn 2009; Gese 2010, this conference, on temporal and qualitative readings)

- However, apparently not all speakers accept the qualitative readings (see above).

2.2 BE-passives involve event kinds.

- The underlying event can be modified by **event-related modifiers** ((2), (9-b)), foremost instrumentals and manner modifiers, but sometimes also *by*-phrases⁷.
- However, event-related modification is only possible if it pertains to the consequent state; cf. (12) and (13) (examples after Rapp 1996).

⁷This is apparently at odds with the observation above, that the external argument is completely absent in BE-passives (or in adjectival passives in general). It is certainly at odds with the common assumption in the literature that *by*-phrases are incompatible with adjectival passives. However, this is not generally the case, and plenty of counter-examples from German are given in, for example, Rapp (1996); Schlücker (2005) (see also (12-b), (12-c), (13-a)). A preliminary observation is that *by*-phrases are acceptable when they serve to create a new (sub-)kind (e.g. (13-a)), or with stative predicates in general, in which case they never refer to agents. For example, with psych predicates, they rather refer to the stimulus of the state expressed. They therefore still have an impact during the holding of the state.

- (12) a. Der Mülleimer ist (*von meiner Nichte / *langsam / *genüsslich / *mit der
the rubbish bin is by my niece / slowly / pleasurably / with the
Heugabel) geleert.
hay fork emptied
- b. Das Haus ist von Studenten bewohnt.
the house is by students in-lived
- c. Er ist von der Musik beeindruckt.
he is by the music impressed
- (13) a. Die Zeichnung ist von einem Kind angefertigt.
the drawing is by a child made
- b. Der Brief war mit einem Bleistift geschrieben.
the letter was with a pencil written
- c. Das Haar war ziemlich schlampig gekämmt.
the hair was rather slopp(il)y combed

⇒ Only those modifiers are allowed that relate to event participants that still have an impact on / are still 'visible' in the consequent state.

The event cannot be temporally or spatially modified.

- A modifier like *recently* cannot modify the underlying event but only the state ((14)).

- (14) 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.)

- BE-passives are incompatible with temporal frame adverbials ((15)) (examples from von Stechow 1998) (see also Rapp 1996, 1997).

- (15) 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.’

→ BE-passives are statements about the present (in contrast to present perfect verbal passives, which are statements about the past⁸).

- Spatial modifiers that pick out the location of the event that brought about the consequent state are also generally bad ((16)).

- (16) a.???Die Reifen sind in der Garage aufgepumpt.
the tires are in the garage inflated
- b.???Das Kind war im Badezimmer gekämmt.
the child was in the bathroom combed

⇒ **The event lacks spatiotemporal location.**

Idea: BE-passives involve event kinds, not event tokens.

⁸See 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 The proposal

A BE-passive refers to the instantiation of a consequent state kind of an event kind ((17)).

$$(17) \quad \lambda P \lambda x \lambda s \exists e_k, s_k, s [P(e_k) \wedge \text{BECOME}(e_k, s_k) \wedge \mathbf{R}(s, s_k) \wedge \mathbf{Hold}(x, s)]$$

NB: \mathbf{R} is Carlson's (1977) realisation relation.

3.1 Motivating BECOME

- The state in BE-passives is a state evaluated with respect to an opposite state (on some scalar dimension, which is not necessarily - at least not for all speakers - temporal).
 - The most straightforward opposition is given by the event structure of predicates involving a BECOME component (the scalar dimension is temporal in the course of the derivation).

$$(18) \quad [\mathbf{BECOME} \phi] \text{ is true at } I \text{ iff there is an interval } J \text{ containing the initial bound of } I \text{ such that } \neg\phi \text{ is true at } J \text{ and there is an interval } K \text{ containing the final bound of } I \text{ such that } \phi \text{ is true at } K. \quad \text{Dowty (1979, 140)}$$

$$(19) \quad \text{Informal event semantics of BECOME (Beck 2005, 7)} \\ \llbracket \mathbf{BECOME} \rrbracket (P)(e) = 1 \text{ iff } e \text{ is the smallest event such that } P \text{ is not true of the prestate of } e \text{ but } P \text{ is true of the result state of } e.$$

- In other cases, an opposite state has to be contextually licensed (the scalar dimension could be one of quality) (similar to Maienborn 2007, 2009, see section 5).

→ Some more abstract version of BECOME should be part of the semantics of this construction, but (possibly) one that is neutral with respect to the underlying scale.⁹

3.2 Motivating event kinds

The event in BE-passives has no spatiotemporal manifestation. → It is an event *kind*.

- Event kinds are natural to expect if we assume:
 - Events form a subsort in our ontology of (token) individuals (Reichenbach 1947; Davidson 1967; Parsons 1990);
 - Kinds form another subsort in that ontology (Carlson 1977); and
 - As a rule, any token in the ontology should be the realisation of some kind in that ontology.
- Event kinds 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 kinds as an ontological category have been made in e.g. Landman and Morzycki (2003); Ginzburg (2005); Gehrke and McNally (to appear).
- Under an additional Neo-Davidsonian view, events can be structurally complex, and this should hold for event kinds and event tokens; therefore there should be subevent kinds as well.

⁹von Stechow's (1998) RESBEC operator ((20-a)) will not do, since we only get a temporal scale then (his general structure of BE-passive participles is given in (20-b)).

$$(20) \quad \text{a. } \mathbf{RESBEC} = \lambda P \lambda t \lambda w \exists e [e \supset \subset t \wedge \mathbf{BECOME}(\mathbf{P})(e)(w) \wedge \mathbf{P}(t)(w)], \\ \mathbf{P} \text{ a stative proposition} \\ \text{b. } [\text{AP A } [\text{PartP ge-t } [\text{vP } \mathbf{RESBEC} [\text{LP }]]]]$$

Modeling manner in terms of kinds (Landman and Morzycki 2003)

- Semantic and syntactic parallels with *so*-anaphora in the nominal and verbal domains across various languages; examples from German are given in (21).

- (21) a. **so** ein Hund (wie dieser)
 so a dog (like this)
 ‘such a dog like this one’ *adnominal use*
- b. Er hat **so** getanzt (wie Maria).
 he has so danced (like Mary)
 ‘He danced in the same manner as Mary.’ *adverbial use*

- Elements like *so* under the adnominal use ((21-a)) are commonly treated as **kind anaphors**, following Carlson (1977).
- Landman and Morzycki (2003) treat adverbial *so* analogously, as anaphor to event kinds: *so* denotes a property of events that realise a (particular contextually supplied) kind ((22)).

- (22) $[[so_i]] = \lambda e.e \text{ realises } k_i$

- An additional argument that kinds are involved comes from the fact that temporal and locative adverbials generally cannot antecede adverbial *so* ((23)), unless they can be seen as creating a new (or sub-)kind ((24)) (examples from Landman and Morzycki 2003).

- (23) a. *Maria hat am Dienstag getanzt, und Jan hat auch so getanzt.
 Mary has on Tuesday danced and John has also so danced
- b. *Maria hat in Minnesota gegessen, und Jan hat auch so gegessen.
 Mary has in Minnesota eaten and John has also so eaten

- (24) Maria schläft in einem Schlafsack, und Jan schläft auch so.
 Mary sleeps in a sleeping bag and John sleeps also so
 ‘Mary sleeps in a sleeping bag and John does so, too.’

- They conclude that it is viable to treat manner modifiers as modifying event kinds in general.

⇒ **The same kind of modifiers are (un)acceptable with BE-passives.**

- With manner modifiers, the focus is typically on the type of event which could have brought about the state ((25)).

- (25) 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).’

- Welke (2007): Sometimes a BE-passive is only possible with an additional modifier ((26), (27)).

- (26) a. ?Der Brief ist geschrieben.
 the letter is written
- b. Der Brief ist mit **roter** Tinte geschrieben.
 the letter is with red ink written
 ‘The letter is written with red ink.’

- (27) a. ?Das Brett ist gesägt.
 the plank is sawn
 b. Das Brett ist in zwei Teile gesägt.
 the plank is in two parts sawn
 ‘The plank is cut in two pieces.’

4 Previous proposals: 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).

4.1 Target state vs. resultant state passives (Kratzer 2000)¹⁰

- Diagnostics: (In)compatibility with *immer noch* ‘still’:

- (28) 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

- **Target state passives**

- Characterise reversible, transitory states
- Are only possible with category-neutral stems with an event *and* a target state argument (unspecified for syntactic category because they can be used to build verbs or adjectives)
- Can be lexical ((29)) or phrasal ((30)) (example: *(das Boot) aufgepumpt* ‘(the boat) inflated’) (already in Kratzer 1994: Possibility of lexical and phrasal adjectivisation)

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

(30) *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)
- Have perfect aspect, since the derivation involves an aspectual operator ((31)).

¹⁰See also Kratzer (1994). The terminology is adopted from Parsons (1990), though Kratzer seems to have a more narrow notion of ‘target state’.

- (31) *Resultant state passive*
 Stem+object: $\lambda e[\text{prove}(\text{the theorem})(e)]$
 Stativiser: $\lambda P \lambda t \exists e [P(e) \& \tau(e) < t]$
 Output: $\lambda t \exists e [\text{prove}(\text{the theorem})(e) \& \tau(e) < t]$

- NB: A similar distinction is already found in Brandt (1982) (via Rapp 1996):

- (32) a. Das Fleisch ist gekocht. Wir können jetzt essen.
 the meat is cooked we can now eat
 ‘The meat is done. We can eat now.’
 b. Das Fleisch ist gekocht. Es ist nicht gebraten.
 the meat is cooked it is not fried
 ‘The meat is cooked. It is not fried.’

Rapp’s (1996) assessment: In both cases we are dealing with an adjective-copula construction, the difference is a mere pragmatic one between:

- A consequent state reading (‘Nachzustand’) ((32-a)); and
- A characterisation reading (‘Charakterisierung’) ((32-b))

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 BE-COME 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.

- (33) 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 can be morphologically expressed in proper adjective-participle pairs (e.g. *open* vs. *opened*), but can also remain morphologically indistinct (e.g. *closed*) ((34)).

- (34) 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 ((35)).

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

– Only statives can appear after a verb of creation, such as *build, create, make* ((36)).

- (36) a. Die Tür war offen gebaut.
the door was open built
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 ((37))

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

NB: Unlike in English, sometimes even the primary adjective as well as other participles are quite bad in these contexts ((37-b,c)).

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.

4.3.1 Embick:

- Something like BECOME should be part of the construction to explain the data in (36) and (37).
- His 'stative' participles only occur when they are not blocked by primary adjectives; It is not clear that we need a separate analysis then.

4.3.2 Kratzer:

While Kratzer's distinction intuitively makes sense (but then rather along the lines of Rapp 1996), 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.¹¹
 - The verbs whose participles are compatible with *still* (e.g. *hidden, screwed off, evacuated, obstructed*) have clear antonyms, whose consequent states express something like a more 'natural' state.
 - Different reasons why other participles do not allow *still*:
 - * The underlying verb does not lexically encode a consequent state, e.g. *greeted*: A BE-passive is quite bad even without the modifier.
 - * The underlying verbs are derived from adjectives (e.g. *emptied, dried*): Even with the underlying adjectives, the use of *still* seems more marked (38).

¹¹A full account of the facts, e.g. in terms of Löbner (1989, 1999), is beyond the scope of this paper.

- (38) a. Die Wäsche ist immer noch trocken.
the laundry is still dry
'The laundry is still dry.' *Isn't this ideally the state laundry should be in?*
- b. Der Briefkasten ist immer noch leer.
the mailbox is still empty
'The mailbox is still empty.' *Expectation: Someone should put mail in it; but this is not necessarily the more natural state for a mailbox to be in.*

– NB: Negation of the participle renders *still*-modification possible ((39)) (see also Schlücker 2005, for similar observations).

- (39) a. Das Theorem ist immer noch unbewiesen.
the theorem is still unproven
'The theorem is still unproven.'
- b. Der Briefkasten ist immer noch ungeleert.
the mailbox is still unemptied
'The mailbox is still unemptied.'

4.4 Adapting the proposal to different readings

(40) Three possible readings of BE-passives [?]

- a. Consequent state of an event token that took place:
 $\lambda P \lambda x \lambda s \exists e, e_k, s_k [P(e_k) \wedge \text{BECOME}(e_k, s_k) \wedge \mathbf{R}(e, e_k) \wedge \mathbf{R}(s, s_k) \wedge \mathbf{Hold}(x, s)]$
- b. Instantiation of a consequent state kind of an event kind:
 $\lambda P \lambda x \lambda s \exists e_k, s_k, s [P(e_k) \wedge \text{BECOME}(e_k, s_k) \wedge \mathbf{R}(s, s_k) \wedge \mathbf{Hold}(x, s)]$
- c. The participle is a proper adjective, expressing a stative property: $\lambda P \lambda x. P(x)$

Distinction between (40-a,b) and (40-c):

- Reminiscent of Embick's (2004) 'resultative' vs. 'stative' participles, respectively.
- (40) captures the insight that one such participles involve a transition into a consequent state, but that they can sometimes also be used like primary adjectives.¹²

Distinction between (40-a) and (40-b) (further subdivision of Embick's resultatives):

- Reminiscent of Kratzer's (2000) target vs. resultant state passives, but essentially quite different: (40) rephrases the distinction by refuting to the difference between event kinds and event tokens:
 - Consequent states of actual events that took place (40-a): similar to a perfect of result.
→ temporal reading?
 - In (40-b), the states are merely of the correct kind to have resulted from an event of some type. → qualitative reading?
- Problem now: We do not really want an event token, since there is no spatiotemporal location.

If event kinds lack spatiotemporal location, don't we get the temporal / non-temporal distinction for free?

¹²Also participles that are lexicalised or grammaticalised as adjectives, e.g. *beliebt* 'popular', *bekannt* 'known, famous', *verärgert* 'angry' (see also Welke 2007), could fall into this latter group.

5 Comparison with Maienborn (2009)

- 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’ ((41-a)), BE-passives ascribe a ‘pragmatically salient *ad hoc* property, conceived as resulting from the event referred to by the participle’ ((41-b), (42)).

- (41) 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
 $\exists s [s: \mathbf{Q}(\mathbf{the\ manuscript}) \wedge \mathbf{result}(e, s) \wedge \mathbf{submit}(e)]$
- (42) Adjectival \circ -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.
- A BE-passive is pragmatically licensed if the context provides a contrasting alternative state s' which differs from s with respect to either the temporal or the qualitative dimension.
 - Maienborn’s interpretation of Kratzer’s resultant vs. target state passives:
 - Resultant state reading ((43-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 ((43-b)): The manuscript belongs to the class of submitted papers; s' exemplifies a contextually salient property **Q'** that is distinct from **Q**.

- (43) Das Manuskript ist eingereicht ...
the manuscript is submitted ...
‘The manuscript is submitted ...’
 $\exists s [s: \mathbf{Q}(\mathbf{the\ manuscript}) \wedge \mathbf{result}(e, s) \wedge \mathbf{submit}(e)] \dots$
- 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; her characterisation of the two readings is quite similar to Rapp’s (1996) (see above).

5.1 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 from her account in (42).
- Intuitively, not all BE-passives have an ‘ad hoc’ flavour or are in need of pragmatic licensing:
 - BE-passives are fully acceptable with change-of-state verbs lexically specifying a consequent state, without additional pragmatic effects (e.g. there are no such effects with *geöffnet* ‘opened’) (see also Welke 2007).

- Context dependency seems relevant only 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).¹³

5.2 The processing of BE-passives

(see also Gese 2010, this conference)

- 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 (44-a): the window being closed) were significantly shorter after sentences with BE-passives ((44-a)) than after sentences with genuine adjectives ((44-b)).

- (44) 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: Kukina and Claus 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 ((45-a)) than to process BECOME-passives ((45-b)) (or the corresponding constructions with primary adjectives, as in (45-c,d)).

- (45) 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.’

- Stolterfoht et al. interpret these results as a result of category conversion, which supposedly adds additional processing costs.

Note: The BE-passive in (45-a) (without any additional context) is rather marked; in a context, where the task was to spill milk, the construction is fully acceptable.

⇒ Additional processing costs might rather derive from the additional pragmatic effort involved in pragmatically licensing the construction (or coercion).¹⁴

¹³See also Rapp (1996) who proposes that these cases require a reinterpretation of an ‘activity’ into a ‘process’.

¹⁴This would be compatible with Maienborn’s overall account, but intuitively only some predicates should involve additional pragmatic licensing; in particular those in (44) should not.

⇒ 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.

6 Conclusion

- German BE-passives express a consequent state or 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.
- The (preliminary) account that captures the different readings employed the concept 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, i.e. a **consequent state** (in the broadest sense)?
 - Adjectival passives: A consequent state is predicated over the internal argument; there is 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).
 - Verbal 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).
 - 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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