

# Still puzzled by adjectival passives?\*

Berit Gehrke

## 1 Introduction

The received view for languages like English and German is that in adjectival passives the external argument of the underlying verb is not syntactically active, based on its lack of control into purpose clauses and the absence of the disjoint reference effect.<sup>1</sup> In both respects, verbal passives behave differently, leading to the conclusion that the external argument is present in the syntax, even in the absence of *by*-phrases (cf. Baker *et al.* 1989; Kratzer 1994, among others). This is illustrated by German, in which a morphological difference is made between adjectival passives, which combine a past participle with *sein* ‘be’ ((1-a), (2-a)), and verbal passives, which appear with *werden* ‘become’ ((1-b), (2-b)).

- (1) a. \*Der Reifen **war** aufgepumpt, um die Fahrt fortzusetzen.  
the tire was inflated in order the journey to continue  
*intended*: ‘The tire was inflated in order to continue the journey.’  
b. Der Reifen **wurde** aufgepumpt, um die Fahrt fortzusetzen.  
the tire became inflated in order the journey to continue  
‘The tire was (being) inflated in order to continue the journey.’
- (2) a. Das Kind **war** schlampig gekämmt.  
the child was slopp(il)y combed  
‘The child was combed in a sloppy manner.’  
(i) *Disjoint reference*: Someone (else) (has) combed the child.

---

\*For comments on earlier versions of this paper, I thank Artemis Alexiadou, Boban Arsenijević, Edit Doron, Scott Grimm, Louise McNally, Antje Roßdeutscher, Florian Schäfer, and two anonymous reviewers. This work was supported by grant JCI-2010-08581 from the Spanish Ministry of Science and Innovation.

<sup>1</sup> This does not hold universally. Anagnostopoulou (2003), for instance, argues that one type of adjectival passives in Greek (the *-menos*-type) has agentive properties that the German one lacks, including implicit agents that can control into purpose clauses; this is further refined in Anagnostopoulou and Samioti (this volume).

- (ii) *Reflexive*: The child (has) combed him/herself.
- b. Das Kind **wurde** schlampig gekämmt.  
 the child became slopp(il)y combed  
 ‘The child has been combed in a sloppy manner.’  
*Only disjoint reference*: Someone (else) (has) combed the child.

These observations, combined with the common assumption that *by*-phrases syntactically and semantically express external arguments, lead to the prediction that *by*-phrases in English and German should only be possible with verbal passives. The puzzling fact, then, is that the literature reports many instances of German adjectival passives combining with phrases headed by *von* ‘by’ (e.g. (3)) (Kratzer 1994, 2000; Rapp 1996; Schlücker 2005; Maienborn 2007*a*, 2011; Gese 2010; Gehrke 2012) (see also McIntyre 2012; Bruening 2012, for data from English).

- (3) a. Die Zeichnung ist von einem Kind angefertigt.  
 the drawing is by a child produced  
 ‘The drawing is produced by a child.’
- b. Das Haus ist von Studenten bewohnt.  
 the house is by students inhabited  
 ‘The house is inhabited by students.’

The topic of this paper is how to deal with *by*-phrases with German adjectival passives. There are at least three possible ways to analyze them. First, one could argue that combinations of *sein* ‘be’ + participle that allow *by*-phrases are not adjectival passives. On one such account the participles could be analyzed as genuine adjectives that combine with argumental PPs, similar to, e.g., (4-a), and the *by*-phrase could be treated on a par with *by*-phrases we find with genuine nouns, such as those in (4-b).

- (4) a. (un)glücklich über diese Entwicklung  
 (un)happy about this development  
 ‘(un)happy about this development’
- b. ein Buch von Tanya Reinhart  
 a book by Tanya Reinhart  
 ‘a book by Tanya Reinhart’

A problem for such an approach is that it ignores the fact that the adjectives involved are clearly participles morphologically derived from some underlying verb. In this paper, I will argue that, although some *by*-phrases with adjectival passives can, indeed, be analyzed as adjectival modifiers, modifying the state associated with the adjectivized participle directly (e.g. (3-b)), *by*-phrases of the type in (3-a) clearly modify an event and can therefore not be analyzed as adjectival (state) modifiers.

A second theoretical option is that the previous literature had it wrong, and adjectival passives do contain external arguments. Bruening (2012), for instance, argues (for English) that the lack of the disjoint reference effect is an illusion that only appears with (potentially) reflexive predicates but not with other ones (see also McIntyre 2012), and that, more generally, there are no differences between verbal and adjectival passives with respect to external arguments: both contain passive Voice heads that license this argument.<sup>2</sup> This cannot be the whole story, since it does not straightforwardly account for two facts to be discussed in this paper: (i) not all *by*-phrases that are possible with verbal passives are possible with adjectival passives, and (ii) the differences between (apparent) external arguments with adjectival and verbal passives go beyond purpose clauses and the disjoint reference effect.

The third theoretical option, then, which will be pursued in this paper, is to maintain that these constructions are adjectival passives, which have implicit external arguments (in line with Bruening 2012; McIntyre 2012) but whose *by*-phrases are different from those with verbal passives (contra Bruening 2012).

The overall topic of this paper touches on several interface issues. First, there are well-known issues concerning the lexicon-syntax interface. It is generally assumed that the participles in adjectival passives are ultimately adjectives, but there is disagreement as to whether such adjectives are formed in the lexicon (as implicitly assumed for German by Maienborn 2007*a*, and subsequent work) or in the syntax (e.g. Kratzer 1994). In this paper, I will take a syntactic position and treat adjectival passives as true passives, which contain verbal structure associated with eventivity and which undergo adjectivization at some point of the derivation. Thus, even though Bruening's (2012) account will be argued to be incomplete, his overall conclusion that word formation in the case of adjectival passives is syntactic in nature also underlies the current proposal.<sup>3</sup>

The main contribution of this paper, however, lies at the syntax-semantics interface. In particular, I will be concerned with the question what it means to have verbal structure within adjectives and what the consequences are for the nature of the underlying event. My answer to this question will be that, as a consequence of the adjectival categorization of verbal material the event associated with the verbal predicate does not get instantiated but instead remains in the kind domain.

---

<sup>2</sup>There are also cases where (English) adjectival passives allow for purpose clauses, as shown by McIntyre (2012) (see also Alexiadou *et al.* 2012, for similar examples from German). In a footnote, Bruening dismisses purpose clauses as a diagnostics for external arguments, but does not further address why they are more degraded with adjectival passives.

<sup>3</sup>As we will see, adjectival participles touch upon another issue concerning word formation, namely whether or not words can contain phrasal material. For reasons of space, I cannot address this issue in sufficient detail or from a more global perspective, but see Pygott and Travis (this volume) for discussion.

I will propose that it follows from this that event participants also remain in the kind domain and do not get instantiated.

The paper is structured as follows. Section 2 discusses the difference between *by*-phrases with verbal and adjectival passives, as well as event-related modification with adjectival passives in general, and establishes that even with adjectival passives there are two kinds of *by*-phrases, event- and state-modifying ones. Section 3 outlines the general proposal, according to which adjectival passives involve event kinds rather than event tokens; event-related modifiers will be argued to modify this kind, whereas state modifiers modify a state token. Finally, Section 4 concludes.

## 2 Event-related modification

In this section, I will argue that particular restrictions on event-related modification with adjectival passives can be accounted for by assuming that such modifiers modify an event kind rather than an event token. I will first show that (event-related) *by*-phrases with adjectival passives are crucially different from those with verbal passives. After that I will outline the general restrictions on event-related modification with adjectival passives, and in the final subsection I will distinguish two types of *by*-phrases with adjectival passives, event- and state-related ones.

### 2.1 Different *by*-phrases with adjectival and verbal passives

Whereas verbal passives can combine with all kinds of *by*-phrases (e.g. (5)), the availability of such phrases is severely restricted with adjectival passives, as has been repeatedly noted in the literature (the examples in (6) are discussed in Rapp 1996; Maienborn 2011).

- (5) a. Der Mülleimer wird (von meiner Nichte) geleert.  
the rubbish bin becomes by my niece emptied  
'The rubbish bin is being emptied by my niece.'
- b. Die Tür wird (von ihm) geöffnet.  
the door becomes by him opened  
'The door is being opened by him.'
- (6) a. Der Mülleimer ist (\*von meiner Nichte) geleert.  
the rubbish bin is by my niece emptied  
'The rubbish bin is emptied (\*by my niece).'
- b. Die Tür ist (\*von ihm) geöffnet.  
the door is by him opened  
'The door is opened (\*by him).'

The restrictions are commonly attributed to the assumption that only those event-related modifiers are allowed that relate to event participants that still have an impact on or are still ‘visible’ in the consequent state, but a detailed investigation of the properties of acceptable vs. unacceptable modifiers is rarely found.<sup>4</sup> In the following, I will compare the *by*-phrases with the two passives to work out the differences and understand the nature of the restrictions.

A first observation is that the complements of the *by*-phrases that are unacceptable with adjectival passives ((6)) are definite noun phrases that refer to a particular entity in the discourse, whereas those in the acceptable ones ((3)) are indefinite NPs or bare nouns. Second, only with verbal passives does an indefinite noun phrase in a *by*-phrase introduce a discourse referent, which can be picked up by pronominal anaphora in the subsequent sentence ((7-a)), not with adjectival passives ((7-b)).

- (7) a. Die Zeichnung wurde von einem Kind angefertigt. Es hatte rote  
the drawing became by a child produced it had red  
Haare.  
hairs  
‘The drawing has been produced by a child. He/she had red hair.’  
b. Die Zeichnung ist/war von einem Kind angefertigt. #Es hatte rote  
the drawing is/was by a child produced it had red  
Haare.  
hairs  
‘The drawing is/was produced by a child. #He/she had red hair.’

Third, only the complements of *by*-phrases with verbal participles (plus *werden* ‘become’) but not with adjectival ones (plus *sein* ‘be’) can be modified by common intersective modification, such as adjectival (token) modification ((8-a))<sup>5</sup> or restrictive relative clauses ((8-b)).

- (8) a. Die Zeichnung {wurde // \*ist/\*war} von einem blonden Kind  
the drawing became is/was by a blond child  
angefertigt.  
produced  
‘The drawing {has been // \*is/\*was} produced by a blond child.’

---

<sup>4</sup>Maienborn (2007a, 2011) discusses event-related modification in more detail, but the details of her account, according to which such modifiers are licensed pragmatically, are not fully spelled out, nor does she systematically investigate the properties of acceptable vs. unacceptable modifiers or provide a positive characterization of the acceptable ones.

<sup>5</sup>Kind modification is possible (e.g. *red ink* in (10-a)), which follows from the general proposal underlying this paper.

- b. Die Zeichnung {wurde / \*ist/\*war} von einem Kind angefertigt,  
 the drawing became is/was by a child produced  
 das ich im Kindergarten getroffen habe.  
 which I in\_the kindergarten met have  
 ‘The drawing {has been // \*is/\*was} produced by a child that I met  
 at the kindergarten.’

Finally, even in the presence of a *by*-phrase there is no control into purpose clauses in adjectival passives, unlike what we find in verbal passives:

- (9) Die Zeichnung {wurde // \*ist/\*war} von einem Kind angefertigt,  
 the drawing became is/was by a child produced  
 um seinen Eltern eine Freude zu machen.  
 in order its.DAT parents.DAT a happiness to make  
 ‘The drawing {has been // \*is/\*was} produced by a child in order to make  
 his/her parents happy.’

In sum, the complements of *by*-phrases that appear with adjectival passives in German, unlike those with verbal passives, are non-referential and have a rather generic flavour. In the following section, we will see that this holds quite generally for event-related modifiers of adjectival passives that name a participant of the underlying event.

## 2.2 Event-related modifiers modify an event kind

Besides *by*-phrases, German adjectival passives also combine with other kinds of modifiers that are commonly assumed to rely on the presence of an agent, such as manner adverbs (e.g. (2-a)) and instrument phrases (e.g. (10)).

- (10) a. Der Brief ist mit roter Tinte / (einem) Bleistift geschrieben.  
 the letter is with red ink / (a) pencil written  
 ‘The letter is written with red ink / (a) pencil.’  
 b. Der Ordner war mit einem Passwort gesichert.  
 the folder was with a password secured  
 ‘The folder was password-protected.’

Again, not all modifiers are acceptable. For example, replacing the noun phrases in the modifiers in (10) by definite noun phrases would lead to ungrammaticality. Some more unacceptable examples are given in (11) (after Rapp 1996).

- (11) Der Mülleimer ist (\*langsam / \*genüsslich / \*mit der Heugabel)  
 the rubbish bin is slowly / pleurably / with the pitchfork  
 geleert.  
 emptied  
 ‘The rubbish bin is emptied (\*slowly / \*with pleasure / \*with the pitchfork).’

The more restricted availability of such modifiers, again, has been attributed to a general ban on non-state-related modifiers. For example, Kratzer (2000) notes that (2-a) is only acceptable in a context in which the hair also looks sloppily combed, but not in a context in which the combing of the hair was sloppy but nevertheless resulted in nice-looking hair. In this context, Anagnostopoulou (2003) differentiates between two kinds of manner modifiers: result-oriented ones like those in (10-a), which are acceptable with German adjectival passives, and agent-oriented ones like those in (11), which are not. She proposes that the latter modifiers attach somewhere within the VP (lower), and the former to VoiceP, which she argues to be absent in German adjectival passives.<sup>6</sup>

Disregarding manner modifiers for the time being, we see that the acceptable *with*-phrases in (10) – very much like the acceptable *by*-phrases above – combine with indefinite or bare nouns, whereas the unacceptable one in (11) combines with a definite one. Furthermore, just like the complements of *by*-phrases with adjectival passives, the complements of *with*-phrases with adjectival passives do not introduce discourse referents and cannot be modified (by token-related modifiers) ((12)).

- (12) a. Die Karte ist/war mit einem Bleistift geschrieben. #Er war blau.  
 the card is/was with a pencil written he was blue  
 ‘The card is/was written with a pencil. #It was blue’  
 b. \*Die Karte ist mit einem kurzen Bleistift geschrieben.  
 the card is with a short pencil written  
*intended*: ‘The card is written with a short pencil.’

A second restriction, the generality of which has gone practically unnoticed, is that the event in adjectival passives lacks spatiotemporal location (see Gehrke 2012, for a more detailed discussion). It has been observed that adjectival passives are incompatible with temporal frame adverbials ((13)) (example from von Stechow 1998) (see also Rapp 1996).

- (13) \*Der Computer ist vor drei Tagen repariert.  
 the computer is before three days repaired  
*intended*: ‘The computer is repaired three days ago.’

---

<sup>6</sup>See also Anagnostopoulou and Samioti (this volume) for an application of this idea to Greek.

The ban on temporal modification of the underlying event is more general, though. For example, a modifier like *recently* cannot modify the underlying event but only the state denoted by the construction. In particular, (14) can only mean that the door was in the opened state recently (and probably is no longer), but not that the door is in the opened state, with the opening having taken place recently.<sup>7</sup>

- (14) Die Tür war kürzlich geöffnet.  
 the door was recently opened.  
 ‘The door was opened recently.’

What has not been noted is that spatial modifiers that pick up the location of the event that brought about the consequent state are also generally bad ((15)).<sup>8</sup>

- (15) #Die Reifen sind in der Garage aufgepumpt.  
 the tires are in the garage inflated  
*intended:* ‘The tires are inflated in the garage.’

Based on these facts, I concluded in Gehrke (2012) that the underlying event in adjectival passives is not instantiated and proposed that adjectival passives involve event kinds rather than tokens. This analysis was further supported by the observation that the restrictions on event-related modification of adjectival passives match the restrictions on possible antecedents of adverbial *so*, as described in Landman and Morzycki (2003), who treat *so* as an event kind anaphora (in analogy to the nominal kind anaphora *such*; cf. Carlson 1977). In particular, spatial and temporal modifiers, which modify an event token, are not possible antecedents of *so*, and they are also unacceptable with adjectival passives. Furthermore, manner modifiers, which Landman and Morzycki propose to treat as event kind modifiers, are acceptable in both, and they name or establish subkinds. Finally, acceptable instruments also name a subkind and can thus be treated as manner in a broad sense, as the following example (from the Frankfurter Rundschau corpus) indicates:

- (16) Ihr weißgetünchter Körper ist mit Binden geschnürt.  
 her whitewashed body is with bandages strapped  
 ‘Her white-washed body is strapped with bandages.’

---

<sup>7</sup>Embick (2004) claims for English adjectival passives that they give rise to an ambiguity with *recently*, in allowing the second reading that is impossible in (14). However, he shows this only with attributive participles (e.g. *the recently opened door*), which actually display the same ambiguity in German. Rapp (2001) convincingly argues that such attributive participles should be analysed as reduced relatives involving verbal rather than adjectival passives.

<sup>8</sup>These examples are acceptable if the spatial frame creates some kind of temporal frame for the state itself (see Maienborn 2007b, for further discussion). Under this reading, however, the PP clearly modifies the consequent state, not the underlying event.

The *with*-phrase here does not name the actual instrument of an actual event that brought about the state the subject is in, but rather makes the kind of state that the subject is in, more concrete: it is of the kind that would result from a strapping-with-bandages-event kind, which in turn is a subkind of strapping event.

We can now make sense of the two-way distinction within manner adverbs, proposed by Anagnostopoulou (2003): an adverb that relates to the degree, to which an object is in a particular state which is associated with the consequent state of an event kind, should always be acceptable with adjectival passives. This is arguably the case in (2-a). If the modifier relates to the event itself, on the other hand, it names a particular (sub-)kind of event, under the current proposal. We can assume, then, that only those modifiers are allowed that name established event kinds. With the unacceptable modifiers in (6) and (11), however, there are no established event kinds: there is no established event kind of emptying something slowly or with pleasure, as much as there is no established event kind of emptying with a pitchfork or by my niece.<sup>9</sup>

Finally, I want to propose that a consequence of the idea that the event remains in the kind domain and is not instantiated is that implicit event participants, such as agents or instruments, are not instantiated either and equally remain in the kind domain. From this, in turn, their more generic character and their inability to introduce discourse referents follow.

In sum, state modifiers (such as degree adverbs and temporal modifiers of the state) are generally available with adjectival passives. Event-related modification, in turn (manner adverbs, instruments), is only available if it modifies an event kind and names an established subkind. In the next section we will see that a similar distinction between state (token) and event kind modification we observed for adverbs carries over to *by*-phrases with adjectival passives. In particular, there is one type of *by*-phrase that behaves like the other event-related modifiers in naming a sub-kind, whereas another type modifies the state directly.<sup>10</sup>

### 2.3 *By*-phrases as event kind vs. state token modifiers

A closer look at *by*-phrases with adjectival passives reveals the need to distinguish two types (see also Gehrke 2012). Rapp (1996) shows that one type is compatible

---

<sup>9</sup>Similar restrictions have been observed on kind modification in the nominal domain, which is only possible if the modified noun refers to a ‘well-established kind’ (first by Carlson 1977):

(i) The {Coke / ??green} bottle has a narrow neck.

<sup>10</sup>One might wonder whether *with*-phrases can be of two types as well, then. I cannot come up with examples of state-modifying *with*-phrases, however, so I assume that such phrases always modify events.

with participles that are prefixed by the adjectival negative prefix *un-*, whereas another type is not, and that both types display word order differences. Schlücker (2005) independently observes differences in prosody and complements with two types of *by*-phrases. Let us take a closer look at these facts.

The first type of *by*-phrase (*by*-phrase I) forms a prosodic unit with the participle, with neutral stress on the modifier ((17-a)). Such *by*-phrases are incompatible with *un*-prefixation ((17-b)) and cannot switch order with the participle ((17-c)).

- (17) a. Die Zeichnung ist von einem KIND angefertigt.  
the drawing is by a child made  
‘The drawing is made by a child.’ (Schlücker 2005)
- b. Die Suppe ist (\*von Maja) ungewürzt.  
the soup is (\*by Maja) unseasoned  
‘The soup is unseasoned (\*by Maja).’ (Rapp 1996)
- c. Der Brief war {\*geschrieben} von einem Experten {geschrieben}.  
the letter was written by an expert written  
‘The letter was written by an expert.’ (Rapp 1996)

In addition, Schlücker (2005) observes that the complements have a more generic character (e.g. *von Feuer* ‘by fire’, *von Bomben* ‘by bombs’).

Rapp’s and Schlücker’s characterizations of these *by*-phrases extend to other event-related modifiers that are allowed with adjectival passives ((18)).

- (18) a. Der Brief war mit (einem) BLEIstift geschrieben.  
the letter was with (a) pencil written  
‘The letter is written with (a) pencil.’
- b. \*Der Brief war mit (einem) Bleistift ungeschrieben.  
the letter was with (a) pencil unwritten  
*intended*: ‘The letter was unwritten with (a) pencil.’
- c. Der Brief war {\*geschrieben} mit (einem) Bleistift  
the letter was written with (a) pencil  
{geschrieben}.  
written  
‘The letter was written with (a) pencil.’

The second type of *by*-phrase (*by*-phrase II) does not form a prosodic unit with the participle: Neutral stress is on the participle, secondary stress on the modifier ((19-a)). Such *by*-phrases are compatible with *un*-prefixed participles ((19-b)) and can switch order with the participle ((19-c)).

- (19) a. Er ist von der MuSÍK beÈINdruckt.  
he is by the music impressed

- ‘He is impressed by the music.’ (after Schlücker 2005)
- b. Die Dresdner Bürger sind von solchen Problemen unbeeindruckt.  
 the Dresden- citizens are by such problems unimpressed  
 ‘The citizens of Dresden are not concerned with such problems.’  
 (Rapp 1996)
- c. Die Dresdner Bürger sind {(un)beeindruckt} von solchen  
 the Dresden- citizens are (un)impressed by such  
 Problemen {(un)beeindruckt}.  
 problems (un)impressed  
 ‘The citizens of Dresden are (not) concerned with such problems.’  
 (after Rapp 1996)

Finally, the complements have a more concrete character (e.g. *vom Feuer* ‘by the fire’, *von der Bombe* ‘by the bomb’) (Schlücker 2005). In all these respects they behave differently from both *by*-phrase I ((17)) and other event-related modifiers ((18)).

Inspired by Rapp’s (1996) observation that *by*-phrase I is action/process-related, whereas *by*-phrase II appears with stative predicates, I proposed in Gehrke (2012) that the former modifies the event kind and names a sub-kind; it thus behaves like other event-related modifiers of adjectival passives in all relevant respects. *By*-phrase II, in turn, modifies the (result) state token. Such *by*-phrases are fully acceptable only with stative predicates and sharply contrast with other event-related modifiers in all respects.

The proposal that *by*-phrase II modifies a state token, rather than an event kind, is further supported by the fact that it behaves more like *by*-phrases with verbal passives in some respects, and different from *by*-phrase I (recall (7)-(9)). In particular, the noun in a *by*-phrase II introduces a discourse referent ((20-a)) and can be modified ((20-b)).

- (20) a. Er ist von einer Melodie beeindruckt. Er hatte sie gestern im  
 he is by a melody impressed he had her yesterday in.the  
 Radio gehört.  
 radio heard  
 ‘He is impressed by a melody. He heard it yesterday on the radio.’
- b. Er ist von einer Melodie beeindruckt, die er gestern im  
 he is by a melody impressed which he yesterday in.the  
 Radio gehört hat.  
 radio heard has  
 ‘He is impressed by a melody that he heard on the radio yesterday.’

To provide a syntactic explanation for the facts regarding prosody, word order, and *un*-prefixation, I will first outline the main proposal. This proposal will de-

part from Schlücker (2005), who treats *by*-phrase I as a ‘V-adjunct’ (following Maienborn 2007a) and *by*-phrase II as a ‘VP-adjunct’ (in the sense of Kratzer 2000). One reason to depart from this account is that the modifiers under discussion are phrases, and phrases adjoin to phrases (e.g. VPs), not to heads (such as Vs). Hence, both types of *by*-phrases should adjoin at least to a VP, or to an even larger structure.<sup>11</sup> Second, Schlücker overlooked the crucial division between eventive and stative predicates, i.e. the fact that *by*-phrase II appears only with stative predicates. Nevertheless, her (informal) observation about the different nature of the complements fits the proposal underlying this paper. With these observations in hand, let us now turn to the proposal.

### 3 The proposal

The previous discussion established three things. First, *by*-phrases (of type I) with adjectival passives are crucially different from *by*-phrases with verbal passives: the external argument with the former does not introduce a discourse referent, from which I concluded that it is not instantiated but remains in the kind domain. Second, adjectival passives involve event kinds rather than event tokens; event-related modifiers apply to this kind. Third, adjectival passives can combine with two different kinds of *by*-phrases, one which modifies an event kind and one which modifies a state token (only with stative predicates).

There is one more thing we have to take into account, which is not discussed in detail here but rather taken for granted. An adjectival passive commonly ascribes a stative property to an object, which is the theme of the underlying verb; this stative property is associated with the result or consequent state of the underlying verb, and it is commonly assumed that the input has to be a resultative or telic verb, which could be represented in various ways (see Gehrke 2012, for more details). Since the precise implementation is not relevant at this point, I will simply follow McIntyre (2012) in representing this by a CAUSE-relation and in labeling the agent or causer Initiator.

At this point, let us return to the question whether adjectival passives contain a passive Voice layer, as suggested by Bruening (2012). Essentially, we

---

<sup>11</sup>Piggott and Travis (this volume) discuss apparent phrasal adjuncts within words in Ojibwe and instead analyze them as complex adjunct heads that are formed in a separate workspace and participate in word formation via head movement. They furthermore argue that restrictions on such modification follow from restrictions on head movement. If we adopt this proposal, the modifiers under discussion could be seen as V-adjuncts. A potential problem, though, is that they (can) contain material that makes them appear more phrasal than the Ojibwe adjuncts discussed, such as prepositions and adjectival kind modification (recall *red ink* in (10-a)). Hence, I will continue to treat them as phrases modifying phrases (along the lines of Kratzer 1994), and to derive the restrictions from the kind semantics.

need to account for the differences between the two passives with respect to the (un)restricted availability of *by*-phrases and their (in)ability to introduce discourse referents. This could be captured in two ways. First, we could argue against Bruening (2012) and follow the more traditional view that there is no VoiceP in adjectival passives (as advocated by Kratzer 1994, 2000). *By*-phrases with adjectival passives would then be licensed by the causative semantics of the underlying verb.

Alternatively, we could follow Bruening (2012) in assuming (something like) passive Voice heads for both passives, but amend this syntactic account with a semantic account of the differences between the two (as suggested in Alexiadou *et al.* 2012). In the remainder of this paper, I will spell out such a semantic account and propose to place the differences in a separate head, solely responsible for adjectivization. Leaning more towards the second option, then, I will actually not commit to a separate VoiceP but will represent the Initiator argument as part of the lexical semantics of the verb. Let us, then, turn to the actual proposal.

### 3.1 The composition of adjectival passives

I propose that the derivation of an adjectival passive like the one in (21) is as in (22).

- (21) Die Tür ist geschlossen.  
the door is closed
- (22) a. Lexical semantics of *schließ-* (type  $\langle e, \langle e, \langle s, \langle ev, t \rangle \rangle \rangle \rangle$ ):  
 $\lambda y \lambda x \lambda s \lambda e [\mathbf{close}(e) \wedge \mathbf{CAUSE}(s)(e) \wedge \mathbf{closed}(y, s) \wedge \mathbf{Initiator}(x, e)]$   
 b.  $\text{Pr}t^0$  *ge-en/t*:  $\lambda \varphi \lambda y \lambda s \lambda e \exists x [\varphi(e)(s)(x)(y)]$   
 c.  $A^0$ :  $\lambda \varphi \lambda y \lambda s \exists e_k, x_k [\varphi(e_k)(s)(x_k)(y)]$   
 d. *geschlossen*:  
 $\lambda y \lambda s \exists e_k, x_k [\mathbf{close}(e_k) \wedge \mathbf{CAUSE}(s)(e_k) \wedge \mathbf{closed}(y, s) \wedge \mathbf{Initiator}(x_k, e_k)]$   
 e. AP *die Tür geschlossen*:  
 $\lambda s \exists e_k, x_k [\mathbf{close}(e_k) \wedge \mathbf{CAUSE}(s)(e_k) \wedge \mathbf{closed}(\mathbf{the\ door}, s) \wedge \mathbf{Initiator}(x_k, e_k)]$

The lexical semantics of a resultative verb, in this case *schließ(en)* ‘(to) close’, is given in (22-a): there is an event *e*, which brings about a state *s*, with the holder of the state (the theme) being *y* and the Initiator of the event being *x*. Passive participle formation in (22-b) existentially quantifies over the external (Initiator) argument.

Following Lieber (1980), it is generally assumed that the participle is turned into an adjective by zero-affixation (e.g. Kratzer 1994; Maienborn 2007a):

- (23) COP [<sub>AP</sub> [<sub>A</sub> [ geöffnet ] ∅]]

The verb's event variable has to be existentially bound (as a kind) at some stage of the derivation, and this could happen either when the participle is formed or when the participle is adjectivized. I propose that the event variable is bound as a kind when the participle is adjectivized, i.e. when the category is changed or specified (depending on the precise implementation). This allows a uniform analysis of past passive participles, whether they are used in verbal or adjectival passives.<sup>12</sup>

Hence, at the stage of participle formation ((22-b)) both verbal and adjectival passive participles are still identical. What makes adjectival passives different from verbal passives is the adjectivization of the participle. At this point, it is also determined that the implicit Agent of the event stays in the kind domain (represented as  $x_k$ ). The semantics of the adjectival head and the output of adjectivization are given in (22-c) and (22-d), respectively. The internal argument of the underlying verb, in turn, is the subject of the AP and thus has to be externalized at some point. McIntyre (2012) and Bruening (2012) propose different versions of  $\lambda$ -abstraction of the verb's object at the point of adjectivization, and in principle either will do for our purposes. I will gloss over the details here and assume that the output of adjectivization after externalization of the verb's internal argument is as in (22-e).

From this analysis it follows that an adjectival passive refers to the instantiation of a result or consequent state kind of an event kind. The state is instantiated at some later stage and temporally located, so that temporal modifiers can access the state's temporal index.<sup>13</sup>

Event-related modifiers (including *by*-phrase I) have to apply before adjectivization, since they modify an event, not a state, and since the event is closed off and not accessible anymore after adjectivization. From this it follows that adjectivization can also target phrases (following Kratzer 1994, 2000), and the relevant phrase in this case is a PrtP. Event-related *by*-phrases, then, adjoin to PrtP (the same holds for *by*-phrases with verbal passives, since at this point both passives are the same). Adverbial modification in general, then, either applies to the event kind (before (22-c)) or to the state token (after adjectivization).

---

<sup>12</sup>Note that McIntyre (2012) and Bruening (2012) collapse the tasks I distribute over Prt (passivization, existential quantification over the external argument) and Adj (stativization, externalization of the internal argument) into one passive Voice head, which they label Prt and Adj, respectively. The dissociation of passivization and adjectivization is motivated by the idea that at the point of participle formation both verbal and adjectival participles are alike, and more importantly, by the need for an attachment site for event-related modification before adjectivization, which renders the event inaccessible for further modification (see below).

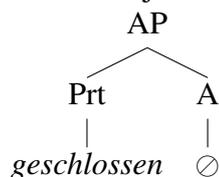
<sup>13</sup>Some operator binds the state variable and asserts that the state takes place at an instant, which is part of an interval (see, e.g., Truswell 2011, for a proposal of such an operator).

### 3.2 The syntax of adjectival passive modification

Let us now turn to the syntactic assumptions about event-related modifiers with adjectival passives, and in particular to some of the differences we observed with the two types of *by*-phrases with respect to prosody, word order, and *un*-prefixation. In the following, I will use somewhat simplified syntactic representations, ignoring PrtP-internal structure and externalization of the internal argument and using a head-final structure.

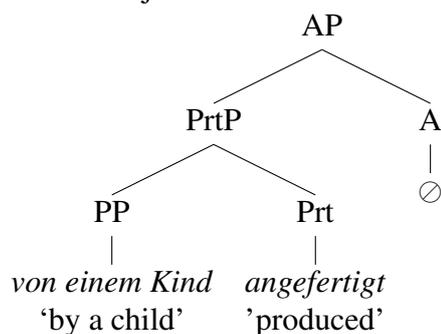
Recall, that I follow Kratzer (1994, 2000) in assuming that adjectivization can be lexical (targeting heads) or phrasal (here: targeting a PrtP). The tree in (24) represents the lexical case, where an adjectival passive does not involve additional event-related modification. The input is the participle alone, e.g. *geschlossen* ‘closed’ (a complex head consisting of V<sup>0</sup> and Prt<sup>0</sup>).

(24) Lexical adjectivization



(25) represents the phrasal case involving a modifier of the event kind (instruments, *by*-phrase I). The input is the PrtP and adjoined to it the PP modifier.

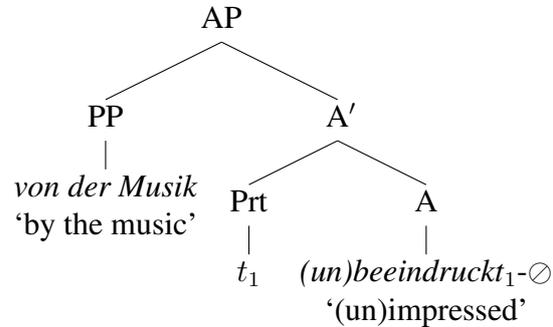
(25) Phrasal adjectivization: Event kind modifiers



The assumption that event kind modification takes place before adjectivization captures the fact that the PP is prosodically integrated into the participle and cannot appear after it. Furthermore, as Rapp (1996) points out, *un*-prefixation is not possible, since only lexical adjectivization is compatible with the adjectival prefix *un*- (following Kratzer 1994).

Finally, an adjectival passive with a *by*-phrase modifying a state token (*by*-phrase II) is represented in (26).

(26) Modifiers of AP: State modifiers



This analysis accounts for the fact that state-related *by*-phrases are not prosodically integrated into the participle and that they can appear before or after the participle, given that they apply after adjectivization. In addition, the participle itself, which is the output of lexical adjectivization, is compatible with *un-* (following Rapp 1996). In the following section, I will argue against an alternative account of event-related modification in terms of state modification.

### 3.3 Against the uniform state modification account

Maienborn (2007a) suggests that the restrictions on event-related modification of adjectival passives follow from general restrictions on state modification. This suggestion is worked out in Gese (2010), who argues that such modifiers trigger coercion of the state into an event and pragmatic enrichment. Underlying such an account is the assumption that the participles are state-denoting adjectives with the event being truly absent, and that 'adjectival passive' is actually a misnomer.

However, the uniform account of event-related modification as state modification raises several problems. For one thing, under this approach it would not be clear how to account for the difference between the two *by*-phrases. Even more problematic is the fact that the restrictions on state modification are not completely identical (cf. Maienborn 2007b; Katz 2008). It is true that both states and adjectival passives do not allow spatial modifiers (unless the spatial frame creates some kind of temporal frame); compare (15) and (27-a) (Maienborn 2007b, 111). It is also true that both allow modifiers temporally locating the state; compare (14) and (27-b) (Maienborn 2007b, 113).

- (27) a. \*Das Kleid ist auf der Wäscheleine nass.  
the dress is on the clothes-line wet  
*intended*: 'The dress is wet on the clothes line.'
- b. Carolin war gestern / zweimal / tagelang müde.  
Carolin was yesterday twice for days tired  
'Carolin was tired yesterday / twice / for days.'

However, only adjectival passives allow manner adverbials, *by*-phrases, instruments; states do not, cf. (28-a) (Maienborn 2007*b*, 112), except in very rare cases like (28-b) (Maienborn 2007*b*, 116).

- (28) a. \*Bardo war friedlich / mit seinem Teddy müde.  
Bardo was peacefully with his teddy tired  
*intended*: ‘Bardo was tired peacefully / with his teddy.’  
b. Peter war mit Begeisterung Angler.  
Peter was with enthusiasm fisherman  
‘Peter was a passionate fisherman.’

Maienborn’s take on (28-b) is that this case involves the coercion of a state into an activity, based on world knowledge, to resolve the sortal conflict between a state and a modifier that needs to apply to an event. Similar to Gese (2010) for adjectival passives, then, she reverts to ‘event coercion’, where the event is non-compositionally inserted.

What is crucial in licensing the modifier in (28-b), however, is that *Angler* is actually a deverbal noun derived from the verb *angeln* ‘to fish’ (literally: ‘fisher’).<sup>14</sup> So the actual generalization is that event-related modifiers are possible with states that are derived from verbs, be it nominal or adjectival states. But then why do we not just take the morphology more seriously and assume an event with deverbal nouns and adjectives to begin with?

## 4 Conclusion

In this paper I have shown that event-related *by*-phrases with German adjectival passives are crucially different from *by*-phrases with verbal passives, since only a subset of the *by*-phrases that are acceptable with verbal passives are also acceptable with adjectival passives, and since furthermore those with adjectival passives do not introduce a discourse referent. Based on the general restrictions on event-related modification with adjectival passives, I proposed that German adjectival passives refer to the instantiation of a consequent state kind of an event kind, and that, as a consequence, event participants of such event kinds do not get instantiated but remain in the kind domain as well. Finally, I argued that *by*-phrases with adjectival passives are acceptable only if they modify either the event kind (naming an established subkind) or the (consequent) state token (which is only possible with stative verbs).

The key idea underlying this proposal is that (re-)categorization of verbal structure as an adjective has consequences for the semantic nature of the underly-

---

<sup>14</sup>This is only noted in passing by Maienborn, but apparently not seen as relevant.

ing event: it does not get instantiated. We should expect that this idea has repercussions for the analysis of other non-verbal categories that have been argued to contain verbal structure, such as nominalizations. Furthermore, we should expect some parallels between event participants of deverbal adjectives and deverbal nouns.

A comparison of *by*-phrases with adjectival passives and with nominalizations might be revealing for the overall question whether or not adjectival passives contain Voice. Alexiadou *et al.* (2009) argue that in English, *by*-phrases can be licensed by Voice (e.g. in verbal passives) or by encyclopaedic knowledge associated with the (underlying) verb (e.g. in *-(a)tion*-nominalizations). They also suggest that the German counterpart of *-(a)tion* is *-ung*. Unlike adjectival passives, now, such nominalizations do not combine with *von*-‘by’, but only with *durch*-‘through’-phrases (introducing both agents and causers). This, in turn, might indicate that the *von*-phrases in adjectival passives are licensed by Voice after all and not just by encyclopaedic knowledge. A more detailed investigation of this question would have to address the general question concerning prepositions across verbal and nominal domains, also from a cross-linguistic perspective; however, this has to be left for future research.

## References

- Alexiadou, Artemis, Anagnostopoulou, Elena, and Schäfer, Florian (2009). PP licensing in nominalizations. In *Proceedings of NELS 38* (ed. A. Schardl, M. Walkow, and M. Aburrahman), pp. 39–52. GLSA, Amherst, MA.
- Alexiadou, Artemis, Gehrke, Berit, and Schäfer, Florian (2012). Adjectival participles revisited. Paper presented at the Workshop on Aspect and Argument Structure of Adjectives and Participles (WAASAP), University of Greenwich, London, June 2012.
- Anagnostopoulou, Elena (2003). Participles and Voice. In *Perfect Explorations* (ed. A. Alexiadou, M. Rathert, and A. von Stechow), Interface Explorations 2, pp. 1–36. de Gruyter, Berlin.
- Baker, Mark, Johnson, Kyle, and Roberts, Ian (1989). Passive argument raised. *Linguistic Inquiry*, **20.2**, 219–251.
- Bruening, Benjamin (2012). Word formation is syntactic: Adjectival passives in English. To appear in *Natural Language and Linguistic Theory*.
- Carlson, Gregory Norman (1977). *Reference to Kinds in English*. Ph.D. thesis, University of Massachusetts at Amherst.

- Embick, David (2004). On the structure of resultative participles in English. *Linguistic Inquiry*, **35.3**, 355–392.
- Gehrke, Berit (2012). Passive states. In *Telicity, Change, and State: A Cross-Categorical View of Event Structure* (ed. V. Demonte and L. McNally), pp. 185–211. Oxford, Oxford University Press.
- Gese, Helga (2010). Implizite Ereignisse beim Zustandspassiv. Paper presented at the workshop ‘Zugänglichkeit impliziter Ereignisse’, University of Tübingen, July 2010.
- Katz, Graham (2008). Manner modification of state verbs. In *Adjectives and Adverbs: Syntax, Semantics and Discourse* (ed. L. McNally and C. Kennedy), pp. 220–248. Oxford University Press, Oxford.
- Kratzer, Angelika (1994). The event argument and the semantics of Voice. Ms. University of Massachusetts at Amherst.
- Kratzer, Angelika (2000). Building statives. Ms. University of Massachusetts at Amherst.
- Landman, Meredith and Morzycki, Marcin (2003). Event-kinds and manner modification. In *Proceedings of the Western Conference in Linguistics (WECOL) 2002* (ed. N. M. Antrim, G. Goodall, M. Schulte-Nafeh, and V. Samiian). California State University, Fresno.
- Lieber, Rochelle (1980). *On the Organization of the Lexicon*. Ph.D. thesis, Massachusetts Institute of Technology.
- Maienborn, Claudia (2007a). Das Zustandspassiv: Grammatische Einordnung - Bildungsbeschränkung - Interpretationsspielraum. *Zeitschrift für germanistische Linguistik*, **35**, 83–144.
- Maienborn, Claudia (2007b). On Davidsonian and Kimian states. In *Existence: Semantics and Syntax* (ed. I. Comorovski and K. von Heusinger), pp. 107–130. Springer, Dordrecht.
- Maienborn, Claudia (2011). Strukturausbau am Rande der Wörter: Adverbiale Modifikatoren beim Zustandspassiv. In *Sprachliches Wissen zwischen Lexikon und Grammatik* (ed. S. Engelberg, A. Holler, and K. Proost), pp. 317–343. de Gruyter, Berlin.
- McIntyre, Andrew (2012). Adjectival passives and adjectival participles in English. To appear in *Non-Canonical Passives* (ed. A. Alexiadou and F. Schäfer). John Benjamins, Amsterdam.

- Rapp, Irene (1996). Zustand? Passiv? Überlegungen zum sogenannten “Zustandspassiv”. *Zeitschrift für Sprachwissenschaft*, **15.2**, 231–265.
- Rapp, Irene (2001). The attributive past participle: Structure and temporal interpretation. In *Audiat Vox Sapientiae: A Festschrift for Arnim von Stechow* (ed. C. Féry and W. Sternefeld), pp. 392–409. Akademie-Verlag, Berlin.
- Schlücker, Barbara (2005). Event-related modifiers in German adjectival passives. In *Proceedings of Sinn und Bedeutung 9* (ed. E. Maier, C. Bary, and J. Huitink), pp. 417–430. Radboud University Nijmegen.
- Truswell, Robert (2011). *Events, Phrases, and Questions*. Oxford University Press, Oxford.
- von Stechow, Arnim (1998). German participles II in Distributed Morphology. Ms. University of Tübingen.