

Conditions for the exclusion of *immer noch* in German adjectival passives

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Introduction (puzzle and aim of the paper)

- our starting point is an observation made by Kratzer (2000) that German adjectival passives come in two varieties: those that accept *immer noch* and those that don't accept *immer noch*

Die Ausfahrt ist (immer noch) versperrt.
Die Reifen sind (immer noch) aufgepumpt.
Das Bild ist (immer noch) gestohlen.

- “...describe states that are in principle reversible, hence can be transitory, and this is what *immer noch* requires” (Kratzer)

Das Theorem ist (? immer noch) bewiesen.
Die Gäste sind (? immer noch) begrüßt.
Das Bild ist (? immer noch) gemalt.

*Das Theorem ist (? immer noch) bewiesen.
Die Gäste sind (? immer noch) begrüßt.
Das Bild ist (? immer noch) gemalt.*

- cases that escape Kratzer's account (cf. Gehrke 2011):

*Der Briefkasten ist (? immer noch) geleert.
Die Wäsche ist (? immer noch) gewaschen.
Das Glas ist (? immer noch) ausgetrunken.*

- these states are clearly reversible! Why is *immer noch* bad?

- our aims:
 - clarifying the combinatorics of adjectival passives with *immer noch*
 - developing an account
 - showing that the notion of Frame/Script is crucial for understanding the facts

Some characteristics of adjectival passives

- adjectival passives in German (Zustandspassiv)
- copular-predicative-construction* made up of...
 - ... a subject NP
 - ... a copular verb (*sein*)
 - ... a predicative adjective built from a verb (past participle)

Das Fenster ist gestrichen.

* e.g. Maienborn 2007, 2009, 2010; Rapp 1996; Welke 2007

- adjectival passives must not be confused with perfect tense constructions with *sein*:

Der Bleistift ist (gestern) angespitzt.*

Das Bild ist (gestern) beschädigt.*

...

Der See ist (gestern) zugefroren.

Ich bin (gestern) rausgeflogen.

...

- note that, in adjectival passives, the topic time must overlap “now” (unlike perfect constructions)

Die Blumen sind gegossen.

- statement about the present moment (evaluation time)
- reference to a state, characterized as the result of an explicitly named event
- subject is the undergoer of the event

- wrt to their pragmatics, adjectival passives are peculiar in that they have very specific felicity conditions
- a suitable context can often rescue an otherwise bad sentence (examples after Maienborn):

**Die Prinzessin ist geheiratet.*

Das Märchen ist erst vorbei, wenn die Prinzessin geheiratet ist.

**Die Antwort ist gewusst.*

Ist die Antwort gewusst oder geraten? – Die Antwort ist gewusst.

- there is one kind of context that makes every sentence that meets the formal adjectival passive criteria acceptable: the “job is done”-context

**Die Katze ist gestreichelt.*

So, ich habe meine Nachbarspflichten erfüllt. Die Zimmer sind gelüftet, Die Blumen sind gegossen, die Katze ist gestreichelt.

- there are in general two possible readings of adjectival passives
- first reading: “Charakterisierungslesart” (Brandt 1982, Welke 2007)
- the kind of activity expressed contrasts with a “contextually salient alternative” (Welke)
- relative to a given time, the property which is said to hold of the subject at that time contrasts with another property (Maienborn)

Der Whiskey ist gerührt, nicht geschüttelt.

*Das Manuskript ist eingereicht, d.h. nicht angenommen,
geschweige denn publiziert.*

- second reading: “Nachzustandslesart” (Brandt 1982, Welke 2007)
- relative to a given property, the time at which the property is said to hold of the subject contrasts with another time (Maienborn)

Der Whiskey ist gerührt. Wohl bekomms!

Das Manuskript ist eingereicht, wir können uns nun dem Konferenzband widmen.

- *immer noch* can support a property contrast...

Das Manuskript ist immer noch eingereicht, d.h. immer noch nicht angenommen.

- ... but also a (future-directed) time contrast:

Das Manuskript ist immer noch gestohlen, trotz aller polizeilichen Bemühungen.

Adjectival passives that exclude *immer noch*

- the contribution of *immer noch*:

noch P

$\Rightarrow P_{att_n}$ (Assertion)

$\Rightarrow \forall t_i : t_0 < t_i < t_n : P$ at t_i (Presupposition)

immer

$\Rightarrow t_0 \ll t_n$

invited inference*: $\exists t_j > t_n : \neg P$ at t_j with $\neg(t_j \gg t_n)$

*wrt *noch* see Löbner 1989:176

- in Kratzer's examples, the inference invited by *immer noch* conflicts with the truth conditions of the sentences, which include: $\forall t_j : (t_j > t_n) \rightarrow P$ at t_j

Das Bild ist (? immer noch) gemalt.

- thus, these cases are explicable in terms of nonreversibility
- but how about those that escape from such an account?

Der Briefkasten ist (? immer noch) geleert.

Die Wäsche ist (? immer noch) gewaschen.

Das Glas ist (? immer noch) ausgetrunken.

- (given reasonably foreseeable use) the respective subject referents take on two cyclically alternating states

Briefkasten: Empty → Full → Empty → Full → Empty ...

Wäsche: Clean → Dirty → Clean → Dirty → Clean ...

Glas: Empty → Full → Empty → Full → Empty ...

Der Briefkasten ist (? immer noch) geleert.
Die Wäsche ist (? immer noch) gewaschen.
Das Glas ist (? immer noch) ausgetrunken.

- the subject referent oscillates among two states
- the verb underlying the adjective denotes an event which causes one of these states

Briefkasten: Empty → Full → Empty → Full → Empty ...
leeren: Cause to be Empty

G1 *immer noch* is ruled out if

- the subject denotes a thing that oscillates among two states, and
- the verb denotes an event that lexically describes the causation of one of these two states

Der Eimer ist (immer noch) gefüllt.

Eimer: Empty → Full → Empty → Full → Empty ...
füllen: Cause to be Full

- contra to G1, *immer noch* is fine
- more examples:
Der Akku ist (immer noch) geladen.
Die Reifen sind (immer noch) aufgepumpt.
...

*Der Briefkasten ist (? immer noch) geleert.
Die Wäsche ist (? immer noch) gewaschen.
Das Glas ist (? immer noch) ausgetrunken.*

- “zero state”: the state that the entity is in when it is brand-new
- “operational state”: the other one

*Briefkasten: Empty → Full → Empty → Full → Empty ...
leeren: Cause to be in the zero state*

G2 *immer noch* is ruled out if

- the subject denotes a thing that oscillates among two states (a zero state and an operational state), and
- the verb denotes an event that lexically describes the causation of the zero state

- back to the problematic case:

Der Eimer ist (immer noch) gefüllt.

Eimer: Empty → Full → Empty → Full → Empty ...
füllen: Cause to be Full

- no causation of zero state \Rightarrow no counterevidence to G2

- the following appears to represent a counterexample:

Die (wiederauffüllbare) Tonerpatrone ist (? immer noch) geleert.

Tonerpatrone: Full → Empty → Full → Empty → Full ...
leeren: Cause to be Empty

- here: Cause to be Empty = Cause to be in the operational state
- G2 predicts *immer noch* to be fine, but it is bad
- before thinking about it: is the example above grammatical at all?

- some speakers find the following sentences “not so good”

Meine Tonerpatrone ist geleert.

Mein Benzintank ist geleert.

Mein Glas ist geleert.

Mein Briefkasten ist geleert.

- indeed, out of the blue, the latter sentences seem much better than the former
- how comes?

- the use of “geleert” seems to call for a motivation
- the resulting state should produce a relevant consequence
- the “not so good” examples do not easily lend themselves to such consequences

*Das Glas ist geleert, und somit dürfte der Durst gestillt sein.
Der Briefkasten ist geleert, und somit hat der Angeschriebene die
Rechnung wohl zur Kenntnis genommen.
Die Tonerpatrone ist geleert, und somit ...?
Der Benzintank ist geleert, und somit ...?*

- however, as soon as the context explicitly supplies a consequence for the emptying, the problematic sentences are perfectly fine
- note that this gives an instance of the “job is done” reading

*Unsere Benzintanks sind geleert, wir können jetzt notlanden.
Meine Tonerpatrone ist geleert, jetzt kann ich endlich mal die neue
Tintensorte ausprobieren, auf die ich schon so lange gespannt bin.*

- we conclude that the problematic sentences *are* grammatical
- it's just that out of the blue they are pragmatically marked

- back to the problematic case:

Die Tonerpatrone ist (? immer noch) geleert.

- we saw that, if possible, it exemplifies the “job is done” reading
- now note that under “job is done”, *any* adjectival passive excludes *immer noch* (even when *immer noch* is otherwise accepted)!

Auftrag ausgeführt! Das Bild ist (? immer noch) gestohlen.

- we conclude that the problematic case follows from a general constraint:
**immer noch*, if context = “job is done”
- (in the end we will give a solution to why this is so)

- so we note that, so far, G2 is valid:

G2 *immer noch* is ruled out if

- the subject denotes a thing that oscillates among two states (a zero state and an operational state), and
- the verb denotes an event that lexically describes the causation of the zero state

- further support for G2 stems from the following example:

Die Schleuse ist (immer noch) geleert.

Schleuse: ... Full → Empty → Full → Empty → Full → Empty ...

- the ship lock describes symmetric cycles, there is no dedicated zero state

“Halten Sie die Leinen stramm und lassen Leine nach wenn sich das Boot senkt bis die Schleuse geleert ist...”

“...also warteten wir geduldig bis die Schleuse geleert und wieder voll war.”

Things are more complicated, however...

- G2 is not enough:

Die Lampe ist (immer noch) ausgeschaltet.

Lampe: Off → On → Off → On → Off ...

ausschalten: Cause to be Off, i.e. in the zero state

- the lamp oscillates between two states
- one of the two states qualifies for zero state (brand-new)
- verb describes causation of zero state
- therefore, according to G2, *immer noch* should be ruled out!

*Die Lampe ist (immer noch) ausgeschaltet.
Der Briefkasten ist (? immer noch) geleert.*

*Lampe: Off → On → Off → On → Off ...
ausschalten: Cause to be in the zero state*

*Briefkasten: Empty → Full → Empty → Full → Empty ...
leeren: Cause to be in the zero state*

- if we compare the kinds of states only, we find no significant difference
- we find an important difference, however, if we think about the events that lead to the states:

Lampe: Off $\xrightarrow{\text{event1}}$ On $\xrightarrow{\text{event2}}$ Off $\xrightarrow{\text{event1}}$ On $\xrightarrow{\text{event2}}$ Off

Briefkasten: Empty $\xrightarrow{\text{event1}}$ Full $\xrightarrow{\text{event2}}$ Empty $\xrightarrow{\text{event1}}$ Full $\xrightarrow{\text{event2}}$ Empty

- let the function of a lamp be the lighting of a room, and let the function of a mailbox be the directing of mail into the hands of the addressee
- relative to these functions, there is a crucial difference
- as for the fulfillment of function(mailbox), it is necessary that both events, event1 and event2, occur
- as for the fulfillment of function(lamp), only event1 is necessary
- let's discuss the examples one by one:

Lampe: Off $\xrightarrow{\text{event1}}$ On $\xrightarrow{\text{event2}}$ Off ...

- let the function of a lamp be 'the lightening of a room'
- go from zero state to operational state, and you have it
- (if you want to save energy, which is a different purpose, you can go back to zero)

Briefkasten: Empty $\xrightarrow{\text{event1}}$ Full $\xrightarrow{\text{event2}}$ Empty ...

- let the function of a mailbox be the directing of mail into the addressee's hand
- two steps to function fulfillment:
- first step, mail has to get into the box (box changes from zero state to operational state)
- second step, the mail gets into the hand of the addressee (box changes from operational state to zero state)

Bierglas: Empty $\xrightarrow{\text{event1}}$ Full $\xrightarrow{\text{event2}}$ Empty ...

- let the function of a beer glass be the 'directing of beer into the drinking person'
- two steps to function fulfillment:
- first step, beer has to get into the glass (glass changes from zero state to operational state)
- second step, the beer gets into the mouth (glass changes from operational state to zero state)

Wäsche: Clean $\xrightarrow{\text{event1}}$ Dirty $\xrightarrow{\text{event2}}$ Clean ...

- let the function of a pullover be that it warms and dresses you
- one step to function fulfillment: wear it!
- but while you are wearing it, the pullover will, as an unavoidable effect, get dirty
- it thus changes from zero state to non-zero state
- this “dirty state” undermines the pullover’s function
- therefore, a cleaning is necessary from time to time (to “reset” the pullover back to zero state)

- Our conclusion:
- *immer noch* seems to be sensitive to whether both events, event1 and event2, contribute to function fulfillment of the respective thing
- this condition is not met in the case of the lamp

G3 *immer noch* is ruled out if

- the subject denotes a thing that oscillates among two states (a zero state and a non-zero state), and
- the verb denotes an event that lexically describes the causation of the zero state, and
- it holds that, for the thing to function properly, both kinds of states must successively be reached

Frames and Script-finality

- “*immer noch* is ruled out if [...], and if it holds that, for the object to function properly, both kinds of states must be reached successively”
- this condition suggests that the notion of a *Script* plays a crucial role in understanding the facts

What is a script?

- Schank & Abelson (1977:41,1975:151): “A script is a structure that describes an appropriate sequence of events in a particular context. ”
- Schank & Abelson (1977:45,1975:152): “Each action results in conditions that enable the next to occur. To perform the next act in the sequence, the previous acts must be completed satisfactorily.”

Schank & Abelson distinguish three types of scripts, which describe prescribed sequences of actions (S&A 1975:65)

- Situational script: e.g. restaurant script
- Personal script: e.g. flatterer, jealous spouse, good samaritan
- Instrumental script: e.g. lighting a cigarette, starting a car, frying an egg

Instrumental scripts:

- have only one participant (S&A 1975:65)
- have an intended goal (S&A 1975:65) consisting in bringing an object into a determined state (our refinement)

- A **frame** is “a data-structure for representing a stereotyped situation” (Minsky 1975, cf. also Fillmore 1976, a.o.)
 - The notion ‘frame’ subsumes scripts: “Scripts can be conceived of as event-related complex frame structures consisting of temporally and/or causally linked (sub-)event frames” (Busse 2012:543)
 - In our understanding, the term ‘frame’ is used equivalently to ‘event type’, i.e. ‘kind of eventuality’¹
- ⇒ A verb ‘evokes’ a frame F iff it denotes an eventuality that is an instance of F .

¹Eventualities are actions, states, processes and the like (cf. Bach 1986). 

A **script** is a complex frame structure consisting of a sequence of frames $F_1, F_2 \dots F_n$

- with a temporal ordering:
 - *precedes*(F_1, F_2), ..., *precedes*(F_{n-1}, F_n) (cf. Petruck & Melo 2012),
- where the occurrence of an event instantiating F_i provides an occasion for an event instantiating F_{i+1} to occur:
 - *occasion*(F_1, F_2), ..., *occasion*(F_{n-1}, F_n) (cf. Hobbs 1985, Asher & Lascarides 2003).

abbrev.: F =frame, e =event, P =state, t =time, t_n =now

- Precedes: “Precedes captures the temporal ordering of subevents within a complex event. The relation holds between component subframes of a single complex frame, and provides additional information to the set of Subframe relations[...]” (Petruck & Melo 2012)
 - Occasion: “A relation occasion normally holds between two events if there are two event types ϕ and ψ that are related somehow in terms of stereotypical script knowledge” (Irmer 2011:214; cf. Asher & Lascarides 2003:201)
- ⇒ Two frames F_1 and F_2 form a coherent part of a script iff:
 $precedes(F_1, F_2) \wedge occasion(F_1, F_2)$

- Given this, it follows that:
 - 'Filling/Emptying a mailbox' qualifies for a script
 - 'Switching_On/Switching_Off a lamp' does not!
- FrameNet data (Ruppenhofer et al. 2010) supports this:
 - the verb 'to fill' evokes the frame 'Filling', and 'to empty' evokes the frame 'Emptying':
⇒ script 'Filling/Emptying' with *precedes(Filling, Emptying)* and *occasion(Filling, Emptying)*
 - the verbs 'to switch on', 'to switch off' both evoke the same frame 'Change_operational_state':
⇒ only one frame, no script

What qualifies a frame to be the last frame in the script sequence?

- Instrumental scripts: the final frame is well-defined; it is *the frame which is instantiated by an event that results in the final state of the object which the instrumental script is about.*
- Situational scripts: the final frame is reached when the script is over; this may vary depending on the perspective one takes on the script (e.g. restaurant script: waiter's vs. consumer's perspective)
- Personal scripts: the final frame is determined by the individual background and is subject to variability

The vagueness of determining script-finality (in non-instrumental scripts) explains the great variability in speaker judgements concerning the data.

Script-finality:

- A frame F is script-final ($F = F_{fin}$) iff
 $\neg \exists F' : precedes(F, F') \wedge occasion(F, F')$

Invited inference for script-final events:

- $\forall e \forall F_{fin} \forall P : instantiate(e, F_{fin}) \wedge result(e, P) \wedge P$ at t_n
 $\rightarrow \neg \exists t_j > t_n : \neg P$ at t_j

- Our claim: incompatibility with *immer noch* is due to script knowledge
- *immer noch* is ruled out in adjectival passives denoting the resultant state of an event e instantiating a script-final frame F_{fin} .

- Adjectival passive meaning:
 - $\exists e \exists F \exists P : \text{instantiate}(e, F) \wedge \text{result}(e, P) \wedge P \text{ at } t_n$
- Contribution of *immer noch*:
 - *noch P*
 - $\Rightarrow P \text{ at } t_n$ (Assertion)
 - $\Rightarrow \forall t_i : t_0 < t_i < t_n : P \text{ at } t_i$ (Presupposition)
 - *immer*
 - $\Rightarrow t_0 \ll t_n$
 - Invited inference: $\exists t_j > t_n : \neg P \text{ at } t_j$ with $\neg(t_j \gg t_n)$

Der Briefkasten ist geleert.

- *leeren* evokes the frame F and denotes the event e which instantiates F
 - *ist geleert* denotes the event's resultant state of being empty (P), which is claimed to hold at t_n
 - *Briefkasten leeren* evokes an event frame which is part of the instrumental script 'Filling/Emptying a mailbox'
- ⇒ as e relates to a script-final frame ($F = F_{fin}$), the following inference is invited: $\neg \exists t_j > t_n : \neg P$ at t_j

Der Briefkasten ist (? immer noch) geleert.

- the use of *Der Briefkasten ist geleert* invites the inference $\neg\exists t_j > t_n : \neg P$ at t_j
 - the use of *immer noch* invites the inference $\exists t_j > t_n : \neg P$ at t_j
- Conflict! *immer noch* is ruled out

Die Lampe ist (? immer noch) ausgeschaltet.

- Assume a frame 'Switching_Off appliance' ($= F$)
 - *ausschalten* evokes the frame F and denotes the event e which realizes F
 - *ist ausgeschaltet* denotes the event's resultant state of being switched off (P), which is claimed to hold at t_n
 - As e does not relate to a script-final frame, no inference is triggered
- No conflict with the inference invited by the use of *immer noch*

Conclusions

- By using *immer noch* the speaker communicates the expectation that the state P which is holding at present will turn to $\neg P$ in near future
- In Kratzer's examples, this conflicts with the truth conditions of the sentences, which include: $\forall t_i > t_n : P$ at t_i

Das Bild ist (? immer noch) gemalt.

- In the case of the mailbox, the conflict arises from an inference drawn from script knowledge: *immer noch* is excluded if the adjectival passive denotes a script-final state, which invites the inference: $\neg \exists t_i > t_n : \neg P$ at t_i

Der Briefkasten ist (? immer noch) geleert.

- Recall Kratzer's examples with a "job-is-done" reading

(a) **Die Katze ist gestreichelt.*

(b) *So, ich habe meine Nachbarspflichten erfüllt. Die Zimmer sind gelüftet, Die Blumen sind gegossen, die Katze ist gestreichelt.*

- A "job-is-done" reading assumes a *minimal ad hoc script* that is specified by the particular context:
 - F_1 is the frame in which the job was offered/ordered
 - F_2 is the frame in which the job is done
- F_2 is the script-final frame: *immer noch* is ruled out in adjectival passives denoting the resultant state of an event instantiating F_2

- We would like to thank the audience of CTF'12 for lively and fruitful discussion, and especially for the critical examples. If you know of examples to challenge our current account, please tell us! We are sure that there are.



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