

Structuring adjectival passives cross-linguistically: an aspectual approach

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Goals: I provide a novel account of the cross-linguistic differences within adjectival passives (APass) with respect to the (un-)availability of agent-oriented and spatio-temporal event modification. I show that the classic target vs. resultant state distinction is not useful to explain the relevant data, and I recast the distinction in an alternative syntactic account that derives the empirical facts from just two factors: the aspectual structure of the VP (i.e. *Aktionsart*) and the parametrized attachment height of the adjectivizer.

Introduction: APass can be classified cross-linguistically in two types with respect to event-oriented modifiers (cf. (1a)) and spatio-temporal modification of the underlying event (cf. (1b)): i) *permissive* languages, which allow such modification freely (eg. Greek, Russian, Swedish), and ii) *restrictive* languages, in which event-oriented modifiers are highly restricted and spatio-temporal modifiers are impossible (eg. German, English, Spanish). Interestingly, when the VP-input is atelic, the aforementioned restrictions disappear in restrictive languages and all languages behave alike (cf. (2)).

- (1) a. The glass is broken {*by Mary/ with a hammer/ deliberately*}. *Only OK in permissive languages*
b. The glass is broken {*two days ago/ in the kitchen*}. *Only OK in permissive languages*
(2) The garden is protected {*by three dogs/ with an alarm system/ zealously*} *OK in all languages*

Previous accounts: Focusing on telic VPs in German, Gehrke (2012) argues that APass denote an instantiated consequent state kind of an event kind. Her semantic representation is in (3b) (where $\text{kind} = k$).

- (3) a. Die Tür ist geschlossen. (from Gehrke: 2012)
the door is closed
b. $\exists e_k, s_k, s [\text{BECOME}(e_k, s_k) \wedge \text{THEME}(e_k, \text{door}) \wedge \text{closed}(s) \wedge \text{THEME}(s, \text{door}) \wedge \text{R}(s, s_k)]$

The crucial consequences are that only kind-level event-modifiers that do not introduce a discourse referent will be acceptable, since the event is not a token (cf. (4) vs. (5)), and that spatio-temporal modification of the event will be out, since the underlying event is not spatio-temporally instantiated (cf. (6)). The German examples in (4)-(6) are from Gehrke (2012). I note that Spanish behaves the same way.

- (4) a. Die Zeichnung ist *von einem Kind* angefertigt. b. Der Brief war *mit einem Bleistift* geschrieben
the drawing is by a child made the letter was with a pencil written
(5) Der Mülleimer ist (**von meiner Nichte* / **langsam* / **genüsslich* / **mit der Heugabel*) geleert.
the rubbish bin is by my niece / slowly pleasurably / with the hayfork emptied
(6) a. *Der Computer ist *vor drei Tagen* repariert. b. *Die Reifen sind *in der Garage* aufgepumpt.
The computer is before three days repaired the tires are in the garage inflated
'The computer is repaired three days ago.' 'The tires are inflated in the garage.'

Alexiadou et al. (2015) (henceforth AAS) address the crosslinguistic differences illustrated in (1) and (2) and they syntactize Gehrke's (2012) proposal, by stating that event kinds only get instantiated when verbal structure is directly embedded under Tense and Aspect. Thus, permissive languages like Greek contain an Asp head, since they involve event tokens (cf. (1)), but restrictive languages like German do not (cf. (7a-b)). They follow Kratzer's (2000) distinction between target and resultant state passives, and notice that the APass where event-modification is unrestricted in all languages (cf. (2)) accept *still* in presence of such modifiers, which is a test for target state passives (cf. (8a)), but APass where modification varies cross-linguistically do not accept *still* (cf. (8b)), and so they must be resultant state passives. To explain the crosslinguistic availability of modifiers in (2), they posit a stative Voice attaching above *a* that introduces the holder of the result subevent (cf. (7c)). Since in that structure Voice is directly embedded under T and Asp, we have an explanation for why only agent-oriented modifiers that are somehow "present" in the state or modify it directly, as descriptive grammars would have it, are licensed.

- (7) a. $[_{aP} a [_{AspP} Asp [_{VoiceP} Voice_{AGENT} [_{VP} v [_{RootP} \checkmark]]]]]$ *Greek-type resultant state passives*
b. $[_{aP} a [_{VoiceP} Voice_{AGENT} [_{VP} v [_{RootP} \checkmark]]]]$ *German-type resultant state passives*
c. $[_{VoiceP} Voice_{HOLDER} [_{aP} a [_{VP} v [_{RootP} \checkmark]]]]$ *Target state passives (all languages)*
(8) a. The garden is *still* protected {*by three dogs/ with an alarm system/ zealously*}.
b. The glass is (**still*) broken {*by Mary/ with a hammer/ deliberately*}.

Problems: AAS's account runs into several problems. First, their account for target states in (7c) does not predict which verbal predicates will be able to form target state passives and, more problematically, does

not explain how agent-oriented adverbs are licensed, since their Voice_{HOLDER} in (7c) introduces a result state, and not that of a causative sub-event. In general, it is unclear what we gain with the resultant vs. target state distinction to explain these phenomena (and note that (7b) cannot be a resultant state, since in Kratzer's story such type is derived by an Asp operator which is missing from AAS's structure).

Analysis: I propose an account that takes *Aktionsart* seriously and dispenses with the target vs. resultant state distinction, but reduces the cross-linguistic differences to the attachment height of the stativizer A.

i. Telic VPs, EV-T and the different attachment height of A: Building on the framework for tense and aspect put forth in Demirdache & Uribe-Etxebarria (2000, *et seq.*) (henceforth D&U-E), I propose that telic predicates are formed by two VPs, a higher causative one and a lower one denoting the result state. The lower result VP comes with a temporal argument, a state time ST-T that denotes its run-time. The higher causative VP, which denotes a dynamic sub-event, does not introduce its temporal argument EV-T directly, but is provided one via a higher functional projection I label Ev(ent)P. Note that this approach crucially posits that the run-time of the event (and the subsequent instantiation thereof) is not parasitic on an Aspect head, as in D&U-E and contra most of the current syntactic work on tense and aspect.

For APass with telic VPs in permissive languages, I propose that the adjectivizer A takes EvP as its complement, and thus an EV-T is introduced in the structure. AP attracts the lower ST-T to (Spec,AP), making the ST-T available for higher T and Asp operators (i.e. deriving a stative predication).

In restrictive-type languages, the stativizer A merges directly with the causative VP. The crucial consequence is that EV-T is not introduced since EvP does not project, and so the causing sub-event won't be spatio-temporally locatable and it will remain a kind: this is how I recast syntactically Gehrke's (2012) proposal. As in (9a), ST-T moves to (Spec,AP). The complete structure is given in (9b).

(9) a. [AP [ST-T] A [EvP [EV-T] Ev [VP1 V [VP2 [~~ST-T~~] V]]]] *APass in permissive languages*

b. [AP [ST-T] A [VP1 V [VP2 [~~ST-T~~] V]]] *APass in restrictive languages*

ii. Stative causative VPs: where languages meet: I mentioned at the beginning that it is precisely with atelic VPs that we find permissibility with event-oriented modification and spatio-temporal modification in every language under discussion. Following García-Pardo (2014), I argue that these atelic VPs belong to the aspectual class of causative states or stative causatives, i.e. they are complex stative structures with two states related causally (eg. *protect*, *govern*...). The two states in causative states are temporally co-extensive (eg. in (2), the result state of the garden being protected will hold for as long as the dogs participate in the causing state). This derives the descriptive observations regarding the "presence" or "relevance" of event-oriented modifiers in the result state for modification to be possible at all. Crucially, I propose that stative VPs introduce a ST-T within their projection universally. This means that, for stative causatives, the higher (stative) causative VP does not require a separate functional projection to have a temporal argument ST-T. Therefore, adjectivization will not be able to prevent the introduction of the higher ST-T in any language and thus event-related modifiers and spatio-temporal modifiers of the causing state will be predicted to apply freely, as in fact happens (cf. (2)). Finally, as with APass derived from telic VPs, the lower ST-T further moves to (Spec,AP). The structure at stake is provided in (10).

(10) [AP [ST-T] A [VP1 [~~ST-T~~] V [VP2 [~~ST-T~~] V]]]] *Causative state VPs – Universal structure*

Conclusions: This work has offered a syntactic explanation that accounts for the empirical facts observed in adjectival passives cross-linguistically regarding the (un-)acceptability of event-related modifiers and spatio-temporal modification. I have proposed that the aspectual structure of the underlying VP, and the parametrization of the attachment height of the adjectivizer A (i.e. whether it takes EvP or VP as its complement) is what is behind the data in (1) and (2). I have shown that this proposal has more predictive power and is in fact more simple than the existing accounts of the phenomena discussed in this paper.

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