

Adjectival participles revisited

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1 Introduction

Kratzer (2000): **Two semantic subclasses of adjectival participles**, differentiated by their (in)compatibility with *immer noch* ‘still’:

- **Target state** participles describe reversible, transitory states and are derived from categoriless stems that have both an event and a target state argument ((1a)).
- **Resultant state** participles (borrowing a term from Parsons 1990) are derived from verbs and introduce states that hold forever after the event that brings them about ((1b)).
- Both lack Voice (i.e. the external argument is completely absent).

- (1) a. Die Geißlein sind (immer noch) versteckt. *Target state*
the goats are still hidden
- b. Das Theorem ist (*immer noch) bewiesen. *Resultant state*
the theorem is still proven

Structural differences between two types of participles (e.g., Anagnostopoulou 2003, Alexiadou & Anagnostopoulou 2008, Lundquist 2008; cf. Embick 2004):

- **Target state / stative** participles are directly derived from roots (2a).
- **Resultant state / resultative** participles involve a verbal layer on top of the root (2b).
- **In some languages**, the latter have a Voice layer and inherit the complete argument structure of the underlying verb (2c, e.g. Greek *-menos*-participles, Anagnostopoulou 2003; Alexiadou & Anagnostopoulou 2008; Hebrew participles derived from the causative template, Doron 2012).

- (2) a. [Asp [Root]] (English, German, Greek)
b. [Asp [vP [Root]]] (English, German, Greek)
c. [Asp [VoiceP [vP [Root]]]] (Greek; Hebrew causative template)

One of Embick’s (2004) arguments for the **absence of a v layer** in stative participles:

- Like the adjective in (3a), the participle in (3b) expresses a situation in which the door never participated in a change-of-state event. Therefore, it should involve a root-derivation.

- (3) a. This door was built open/*opened. b. This door was built closed.

Recent challenges to the above picture:

- Anagnostopoulou & Samioti (2012): In Greek, (at least some) target state participles (-*tos*-participles) must involve a verbal layer (vP).
- McIntyre (2011), Bruening (2012): English adjectival participles can license *by*-phrases and must, therefore, involve Voice (VoiceP).

This paper:

There is morphological evidence that adjectival passives can involve **more verbal functional structure than assumed** even in German and English:

- There are adjectival **target state** participles that must involve a **verbal eventive layer**.
- There are adjectival **target state** participles that must, in addition, involve **Voice**.

⇒ This suggests that **verbal and adjectival passives can be structurally quite similar**.

NB: Our claim is not that ALL adjectival participles involve a verbal eventive layer; sometimes adjectival participles lack any eventive verbal layers, as suggested by (3), for which we assume the structure in (2a).

- ⇒ **Embick's division is not the same as Kratzer's division:** Embick's resultatives subsume Kratzer's phrasal target states as well as her resultant states.
- ⇒ Differences between verbal and adjectival passives in the productivity of *by*-phrases and other tests diagnosing implicit arguments reside in the nature of the participle-forming head: **Eventive vs. derived stative**.
- ⇒ **Differences between Greek and German/English adjectival passives** presumably have a different source: They would follow if our hypothesis turns out to be right that the Greek form is ambiguous (for some speakers) between an adjectival passive and the perfect of an eventive passive.

2. Morphological evidence for verbal structure

Arguments for verbal functional structure in adjectival participles:

- Verbalizing morphology (→ eventive v)
- Transitivity morphology (→ Voice)

2.1 Target state participles can involve overt verbalizing heads.

In English (and German), many verbs are derived from some non-verbal source (category-neutral Roots in our terminology) by the addition of verbalizing affixes.

- Distributed Morphology (DM): Verbalizing affixes are the spell-out of a v-head as their presence is clearly related to the verbal/eventive nature of the verbs.
- Harley (2011): Affixes like *-ify*, *-ate* and *-ize* are specific verbalizing morphology.
- Adjectival participial morphology attaches to these verbalizers (4), which suggests that the verbalizing head is still present.

(4)	Root:	√COLON	√MOBIL	√DICT	√HTML	√SATIS
	Root + v:	colon-ize	mobil-ize	dict-ate	html-ify	satis-fy
	participle:	colon-iz- <i>ed</i>	mobil-iz- <i>ed</i>	dict-at- <i>ed</i>	html-ifi- <i>ed</i>	satis-fi- <i>ed</i>

- A number of participles involving overt v-layers pattern with target state participles in being compatible with *still* ((5)). This makes a root-derivation of these participles implausible:

- (5) a. The boss is still satisfied. b. The patient is still hospitalized.
c. The city is still electrified. d. The country is still colonized.

- This argument carries over to German:

- (6) a. Der Patient ist immer noch hospitalisiert.
The patient is still hospitalized
b. Die Strecke ist immer noch nicht elektrifiziert.
the rail-trail is still not electrified
c. Das Land ist immer noch kolonialisiert.
The country is still colonized.

The logic of this argumentation predicts that adjectival participles involving verbalizing suffixes should not be compatible with Embick's context in (3).

- While this seems to be borne out (7a), we have not been able to find English minimal pairs (adjective vs. participle), which could proof this point (cf. (7a, b) vs. (3a, b)):

- (7) a. *The rail-trail was built electrified. b. *The rail trail was built electric.

- In German, we face the same problem with the verb *bauen* 'build':

- (8) a. *Die Strassenbeleuchtung wurde elektrisch gebaut.
The road lighting was electric built
b. *Die Strassenbeleuchtung wurde elektrifiziert gebaut.
The road lighting was electrified built

- Our judgments suggest however the following contrast:

- (9) a. Die Strassenbeleuchtung wurde von Anfang an elektrisch konzipiert.
The road lighting was from the beginning on electric planned
b. ??Die Strassenbeleuchtung wurde von Anfang an elektrifiziert konzipiert.
The road lighting was from the beginning on electrified planned

- A preliminary Google search for German supports this contrast at least by trend:

"elektrisch gebaut" ('built electric')	about 100 hits
"elektrifiziert gebaut" ('built electrified')	8 hits
"elektrisch konzipiert" ('planned electric')	16 hits
"elektrifiziert konzipiert" ('planned electrified')	0 hits (1 irrelevant hit)

⇒ Our prediction is clear: Such participles should always have an event implication.

2.2 Target state participles can involve transitivity morphology (cf. Doron 2012)

German has a few verbs marking the causative alternation with a stem alternation:¹

- In the anticausative variant we find the stem vowel *i* ((7a, b)).
- In the causative and passive variant the stem vowel shifts to *e* ((7c, d)). (cp. English *rise* vs. *raise*, *lie* vs. *lay*)

- (10) a. Das Schiff versinkt / *versenkt. (inchoative)
the ship sinks_{INTRANS} / sinks_{TRANS}
- b. Das Schiff ist versunken / *versenkt. (inchoative; perfect tense)
the ship is sunken_{INTRANS} / sunken_{TRANS}
- c. Hans versenkt / *versinkt das Schiff. (causative active)
John sinks_{TRANS} / sinks_{INTRANS} the ship
- d. Das Schiff wurde (von der Marine) versenkt / *versunken. (causative passive)
the ship was (by the marine) sunken_{TRANS} / sunken_{INTRANS}

DM: This shift can be related to the presence vs. absence of higher verbal structure, i.e. verbal structure on top of the first verbalizer/eventivizer.

- Both causatives and anticausatives are bi-eventive (involve *v* + Result State), but only the former are transitive, i.e., involve an external argument (Alexiadou, Anagnostopoulou & Schäfer 2006).

- (11) a. [Voice [_{VCAUS} [STATE]]] (causative)
b. [_{VCAUS} [STATE]] (anticausative)

- The presence vs. absence of a Voice layer triggers the stem alternation (building on Kratzer's 1996 proposal that Voice introduces external arguments).
- Our analysis of *ver-sinken/senken*:
 - *ver-* introduces the result state
 - *sink* modifies *v*
 - *senk* is the Spell Out of *sink* in the context of Voice (active or passive)
- Crucially, not only the anticausative but also the causative form can form an adjectival participle ((12)). This suggests that **Voice can be present in adjectival passives.**

- (12) a. Das Schiff **ist** schon lange versenkt. b. Das Schiff **ist** schon lange versunken.
the ship is already long sunken_{TRANS} the ship is already long sunken_{INTRANS}

¹ Other verbs with this property are:

- | | |
|--|---|
| (i) a. Er hat den Baum gefällt.
he has the tree felled _{TRANS} | b. Der Baum ist gefallen.
the tree is fallen _{INTRANS} |
| (ii) a. Er hat das Bild an die Wand gehängt.
He has the picture on the wall hung _{TRANS} | b. Das Bild ist/hat an der Wand gehangen.
the picture is/has on the wall hung _{INTRANS} |
| (iii) a. Er hat das Kind erschreckt.
he has the child frightened _{TRANS} | b. Das Kind ist erschrocken.
the child is frightened _{INTRANS} |
| (iv) a. Er hat das Kind aufgeweckt.
he has the child waked _{TRANS} | b. Das Kind ist aufgewacht.
the child is awoken _{INTRANS} |

- Furthermore, this adjectival passives involving Voice can have a **target state reading**. While *das Schiff versenken* does not really form a target state participle, as *still*-modification is only possible if the state is in principle reversible ((13a)), examples with reversible states, such as (13b), are fine with *still*-modification.

- (13) a. ??Das Schiff ist immer noch versenkt.
 the ship is still sunken_{TRANS}
- b. Die Münze ist immer noch im Aquarium versenkt / versunken.
 the coin is still in.the aquarium sunken_{TRANS} / sunken_{INTRANS}

Conclusion:

- Target state participles can contain verbal structure and are not equivalent to Embick’s stative participles (which are necessarily derived from the root).
- Morphologically, we can identify two verbal layers, an eventive verbalizer (little v) and a transitivizer (Voice).
- We have suggested that the presence of verbalizing morphology has semantic effects. At least the predictions are clear; they should always trigger an event implication and purely stative/adjectival readings/contexts should be out.

Question: Does the presence of transitivizing morphology imply the presence of an external argument?

3. Is the external argument present in the structure of adjectival participles?

- We have seen that the verbs with a morphologically marked causative alternation form two adjectival participles.
- Outside of adjectival participles, this morphology reflects semantic (in-)transitivity, which in turn is coded syntactically by the presence/absence of Voice.
- At an intuitive level, these clearly differ in interpretation in that *versenkt* implies an external argument while *versunken* lacks such an implication:

- (14) a. Hurra, das Schiff ist endlich versenkt.
 hooray, the ship is finally sunken_{TRANS}
 => job-done reading
- b. Hurra, das Schiff ist endlich versunken.
 hooray, the ship is finally sunken_{INTRANS}
 => no obvious job-done reading though compatible with such a scenario

- Negation of a causative event points into the same direction:

- (15) a. Die Münze ist schon lange versunken, aber keiner hat sie je versenkt.
 the coin is already long sunken_{INTRANS}, but no-one ever sank it
- b. Die Münze ist schon lange versenkt, *aber keiner hat sie je versenkt.
 the coin is already long sunken_{TRANS}, but no-one ever sank it

- But we also know that the adjectival participle of a transitive verb like *murder* implies an external argument at some level. The following sentence is not compatible with a situation where the president simply died from old age.

(16) Der Präsident ist getötet.
the president is killed

- However, there is no transitivizing morphology in such examples.
- People who say that adjectival passives lack Voice would adhere to conceptual knowledge about killing events. (We find such a move problematic).

There are **several tests** that are intended to diagnose the **presence of an implicit external argument at a syntactic level** (control into purpose clauses, disjoint reference effect, *by*-phrases).

- The traditional view is that these tests give different results in verbal and in adjectival passives (Baker et al. 1988, Kratzer 1994, 2000, among others), suggesting that the latter lack Voice.
- Greek has been noted to be an exception for many of these tests (Anagnostopoulou 2003, Alexiadou & Anagnostopoulou 2008, Anagnostopoulou & Samioti 2012).

The received view for German is that adjectival passives contrast with verbal passives in their highly restricted availability of ***by*-phrases** and **event-related adverbial modification**. For English, it is commonly assumed that *by*-phrases are unavailable altogether.

- The standard view translates into the following theoretical picture:
 - Greek adjectival passives have Voice.
 - English / German adjectival passives lack Voice.

3.1 *By*-phrases and event-related modification in adjectival passives

- The standard claim for English is that adjectival passives are incompatible with *by*-phrases, and to our knowledge there is little discussion on other event-related modifiers in English adjectival passives.
- The generality of this claim has been challenged recently for many languages, for which it has been shown that event-related modifiers are available (yet more restricted in the languages in A. as opposed to B.):

- A. German (e.g., Rapp 1996, 1997, Maienborn 2007, 2011, Gehrke 2012)
English (McIntyre 2011, Bruening 2012)
Spanish (Gehrke & Sánchez-Marco, tomorrow)
Hebrew (Meltzer 2011)
- B. Greek (Anagnostopoulou 2003, Alexiadou & Anagnostopoulou 2008)
Hebrew (Doron 2012, for the causative template)

***By*-phrases:** Greek but not German/English participles allow all kinds of *by*-phrases:

- (17) a. Ta lastixa ine fuskomena **apo** tin Maria.
The tires are inflated by the Mary
- b. Die Reifen **sind** (*von Maria) aufgepumpt.
The tires are by Mary inflated
'The tires are inflated by Mary.'

- c. Der Mülleimer **ist** (***von** meiner Nichte) geleert. (Rapp 1996:246)
 the rubbish bin is by my niece emptied
- d. The door **seemed** {broken/opened/painted} (***by** Mary). (McIntyre 2011)

Some *by*-phrases, however, are acceptable also in German (and sometimes they get better in a particular context, see Rapp 1997, Schlücker 2005 among others):

- (18) Die Zeichnung **ist von** einem Kind angefertigt. (Rapp 1997:192)
 the drawing is by a child produced

English data from McIntyre (2011) and Bruening (2012):

- (19) a. The dictator **remained** unsupported/underestimated **by** the warlords.
 b. Former investigator says he **remains** disturbed **by** what he saw at baby murder scene.
 c. No longer does Tim Thomas **appear** trained **by** Tim Hortons.
 d. There are others who I would call saints more than theologians since they **seem** taught **by** God more than by men.
 e. Once one monkey discovered a new food-washing method, very soon the whole tribe used the method, **untaught by** the original simian.
 f. Steve Jobs' birthday doesn't go **unnoticed by** spammers.

⇒ There exist adjectival passives with *by*-phrases also in English and German.

⇒ But these are restricted compared to *by*-phrases in the verbal passive, or compared to *by*-phrases in Greek adjectival passives.

Instruments: Only Greek participles allow all kinds of instruments:

- (20) a. Ta malia tis basilisas ine xtenismena **me** xrisi xtena.
 The hair the queen-GEN are combed with golden comb
 'The hair of the queen is combed with a golden comb.'
 b. Ihre Haare **sind** (***mit** einem goldnen Kamm) gekämmt. (Rapp 1996: 257)
 Mary is with a golden comb combed
 c. Der Mülleimer **ist** (***mit** der Heugabel) geleert. (Rapp 1996: 246)
 the rubbish bin is with the hayfork emptied

Again, some instruments are acceptable, and again the acceptability sometimes improves in the right context (yet the participle remains adjectival), e.g. German:

- (21) Der Brief **war mit** roter Tinte/**mit** einem Bleistift geschrieben. (Rapp 1997:192)
 the letter was with red ink/with a pencil written

English data from McIntyre (2011) and Bruening (2012):

- (22) a. The radioactive nucleotides are so small that they **remain unseen**, even **with** the most powerful microscope.
 b. Our Lord makes the DNA, the tiniest information bank of the world which **is unseen** even **with** the naked eye, . . .
 c. ... the very earliest stages of an arteriosclerotic plaque, which **remains undiscovered** even **with** the most up to date clinical diagnostics.

Event-related adverbials: Only Greek allow all kinds of event-related adverbials:

- (23) a. To thisavrofilakioitan **prosektika** anigmeno.
The safe was cautiously opened
b. To pc itan diorthomeno **prin tris meres**.
the pc was repaired three days ago
c. To pedi itan htenismeno **sto banio**.
the child was combed in the bathroom
- (24) a. Der Mülleimer **ist *langsam / *genüsslich** geleert. (Rapp 1996:246)
the waste-bin is slowly / enjoyably emptied
b. *Der Computer **ist vor drei Tagen repariert**. (von Stechow 1998)
the computer is before three days repaired
(‘The computer is repaired three days ago.’)
c. *Das Kind **war im Badezimmer** gekämmt. (Gehrke 2012)
the child was in.the bathroom combed

Again, some such adverbs are acceptable:

- (25) Die Haare **waren schlampig** gekämmt / geschnitten. (Kratzer 2000)
the hairs were slopp(il)y combed / cut

- ⇒ Instruments and event-related adverbs can be found in verbal and adjectival passives.
⇒ These are more restricted in the latter than in the former, and more restricted with English/German than with Greek adjectival passives.

Conclusion:

- *By*-phrases and event-related modifiers are available also in adjectival passives, but they are more restricted in German/English as opposed to Greek.

Different theoretical options:

1. Event-related modifiers modify the state directly, in the absence of an event; the restrictions follow from general restrictions on state modification (e.g. Meltzer 2011, Maienborn 2007, 2011).
2. Only low but not high adverbs etc. are acceptable (in particular, no Voice-related ones) (e.g. Alexiadou & Anagnostopoulou 2008).
3. Semantic perspective: Only kind-modification is possible (Gehrke 2012, Gehrke & Sánchez-Marco tomorrow).
4. Syntactic perspective: Voice is present also in adjectival passives (McIntyre 2011, Bruening 2012).

- ⇒ This talk proposes to combine 3 with 4 (more on the *semantic* restrictions tomorrow).

3.2 Control and disjoint reference effects in adjectival passives

Control: Greek but not German/English participles allow control into purpose clauses:

- (26) a. Aftos o pinakas ine zografismenos apo mia
This the painting is painted by a
omadha aktiviston gia na sokarun tus anthropus.
group activists-GEN for to shock-pl the people
'This painting is painted by a group of activists in order to shock the people.'
b. Das Bild **ist** gemalt, (*um die Oma zu schockieren).
the picture is painted in-order the grandma to shock
c. The idea seemed widely publicised (??in order to discredit him). (McIntyre 2011)

However, it can be shown that both English and German participles (at least in some cases) allow **Control** into purpose clauses.

- Examples from English by McIntyre (2011):

- (28) a. The ... bags **remained** closed in order to keep the modified atmosphere intact.
b. Use of the name Blohm + Voss remained prohibited, in order to ... spare the world the shock that ships were being built there again.
c. The investigation launched by the prosecution **remained** limited in order to protect the police.

- We found plenty of control examples for German on Google:

- (29) a. Nachdem die Manschette aufgepumpt **ist**, um den Blutstrom in der Arterie zu
after the cuff up-pumped is in-order the blood-stream in the artery to
blockieren, beginnt die Entlastung der Manschette.
block begins the release the.GEN cuff
'After the cuff is pumped up in order to block the blood stream, begins the release of the cuff.'
b. Wichtig ist, dass die Fronttube bei viel Wind gut aufgepumpt **ist**, um die Form
important it that the front tube at much wind well up-pumped is in-order the form
optimal zu halten.
optimally to keep
'It is important that, in the case of strong wind, the front tube is pumped up well in order to keep the form optimal.'
- (30) a. Alle anderen Bereiche **sind** versteckt, um den Mitgliedern maximale Sicherheit
all other areas are hidden in-order the members maximal security
vor neugierigen Blicken von außerhalb zu garantieren.
from curious looks from exterior to guarantee
'All other areas are hidden in order to guarantee all members maximal security.'
b. Die Partition **ist** versteckt, um ein versehentliches Löschen der Dateien zu
the partition is hidden in-order an unintended erasing the.GEN data to
verhindern.
prevent
'The partition is hidden in order to avoid that it gets deleted by mistake.'

Question: Does this have any impact on the question whether there is an implicit external argument in adjectival passives?

- Recall the often cited example below where a purpose clause can show up with an adjective (Williams 1985):

(31) Grass is green in order to promote photosynthesis.

Comment:

- The grass-is-green examples work in ‘director-contexts’: A powerful controller (a director, God or nature) is the subject of the purpose clause.²
 - To our knowledge, adjectives cannot license purpose clauses outside of such contexts; otherwise we would find examples like (31c) good.
- (32) a. The cat chosen is very big in order PRO_{director} to make it visible to the audience.
 b. Peter_i was fast in order PRO_{i/director} to impress the audience.
 c. My_j cat is big #in order PRO_{j/k} to impress my_j mother.
 d. I_j bought a new car. It is very big (?in order PRO_j to impress my girl-friend.
- In the above control examples with adjectival passives it is the understood subject of the event associated with the adjectival passive which controls PRO.
 - Consider the following contrast: It seems to us that purpose clauses (whose subject is not controlled by God/director) are possible only with adjectival passives but not with adjectives:
- (33) a. Die Heizung **ist/bleibt** ganz **warm**,
 the heating is/remains very warm
 *um einen gemütlichen Abend zu haben.
 in-order a nice evening to have
 b. Die Heizung **ist/bleibt** (auf) ganz **warm gestellt**,
 the heating is/remains on very warm put
 ?um einen gemütlichen Abend zu haben.
 in-order a nice evening to have
- ⇒ Purpose clauses are possible with adjectival passives. While these data might not convince everyone that there must be an implicit argument in adjectival passives, it is at least compatible with this idea.
- ⇒ However, purpose clauses are much more restricted with adjectival than with verbal passives.

² We find the same with unaccusatives:

(i) The actor died/fell to shock the audience.

Disjoint reference effect: One main argument for the proposal that verbal and adjectival passives differ in the presence/absence of Voice is the apparent lack of the ‘disjoint reference effect’, i.e. the availability of a reflexive reading in the latter (Kratzer 2000):

- (34) a. Das Kind **war** schlampig gekämmt.
 the child was slopp(il)y combed
 ‘The child was combed in a sloppy manner.’
 (i) Someone (else) (has) combed the child. *disjoint reference*
 (ii) The child (has) combed him/herself. *reflexive*
- b. Das Kind **wurde** schlampig gekämmt.
 the child became slopp(il)y combed
 (i) = Someone (else) (has) combed the child. *only disjoint reference*
 (ii) NOT: The child (has) combed him/herself. **reflexive*

- However, as also noted by McIntyre (2011) and Bruening (2012), this does, by far, not hold for all adjectival participles. It is typically illustrated with two verbs, ‘comb’ and, for German, with *anmelden* ‘register’.
- **These two verbs are naturally reflexive** (Kemmer 1993; e.g. *comb, dress, wash*). But the logic of the argument would predict the effect to occur with all kinds of transitive verbs, e.g. *töten* (kill) in (35). See also (36) below from McIntyre (2012).³
- Of course, one could say that conceptual knowledge about killing events (they are naturally disjoint, not naturally reflexive) makes a reflexive interpretation in the absence of reflexive morphology deviant. But then disjoint reference effects become vacuous as a test.

- (35) Das Kind **war** getötet. (i) Someone killed the child.
 the child was killed (ii) *NOT*: The child committed suicide.

- (36) a. #John criticised himself, but to me he **seemed** unfairly criticised.
 b. #Some people trust themselves while others underrate themselves and think they won’t succeed. Mary **seems** very underrated and not very trusted.
 c. #He had self-hate problems and **remained** very hated until he sought help.

⇒ Disjoint reference effects suggest the presence of an implicit argument in adjectival passives rather than its absence. Why some adjectival passives lack the disjoint reference effect is a different question: either there is a covert way to express reflexivity with these verbs or these verbs can in fact lack Voice.

Conclusion:

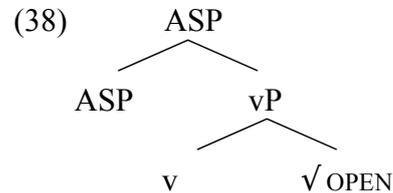
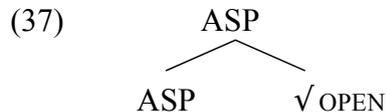
- Adjectival passives do actually give positive results for the standard tests which have been taken to diagnose the presence of Voice.
- However, quantitatively, adjectival passives behave still very different from verbal passives. They pass these tests only sometimes. The exact generalizations when an adjectival passive passes these tests have not been worked out to our knowledge, and we will set these aside for now (but see below for some suggestions).

³ The symbol # indicates that only irrelevant disjoint interpretations are possible, e.g. that others criticized John in (36a).

4. The proposal

Topic 1: Target state participles

Target state participles can contain vPs.



The latter could be the structure of adjectival participles of unaccusatives (if Gese et al. 2011 and McIntyre 2011 are correct, and adjectival passives of unaccusatives exist).

Topic 2: External argument related tests

We saw that the standard tests diagnosing external arguments sometimes suggest the presence of an implicit argument in adjectival passives.

- The disjoint reference effect suggests this basically all the time.
- The morphology is always compatible with this and suggests this sometimes strongly.

Hypothesis 1: Explain counterexamples in the absence of a Voice projection. *By*-phrases and event-related modifiers can be introduced by other means.

- This standard account always had the problem to explain why transitive verbs can leave out Voice in the adjectival passive but not in the active and in the verbal passive.
- Transitivity morphology and disjoint reference effects suggest that this is wrong.
- We need a theory when and how an alternative mechanism can introduce *by*-phrases.
 - This definitely weakens the overall theory of argument structure.
 - The *by*-phrases in adjectival passives are a subset of the *by*-phrases found in verbal passives, a fact that is unexpected under this move.

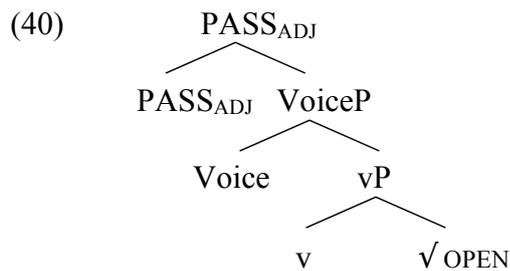
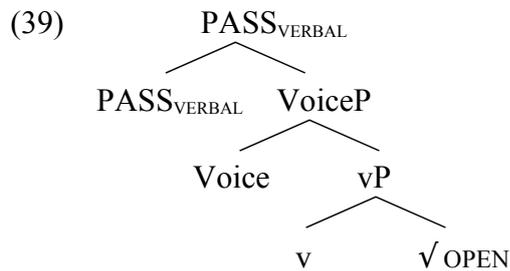
Hypothesis 2: Assume an ambiguity; some adjectival passives involve Voice, others do not.

- Transitivity morphology and disjoint reference effects suggest that this is wrong. We find the morphology even if other tests seem to give a negative result (e.g. if the *by*-phrase is out).
- We need a theory to predict when Voice is present and when not (see the first point above).

Hypothesis 3: Assume that Voice is present in adjectival passives of transitive verbs and explain the restrictions by other means (specific Voice; specific event semantics).

- We need a theory to predict when Voice can license overt *by*-phrases and when not.
- ⇒ We think the third hypothesis is the most promising (see Meltzer 2011 for such a conclusion/account in a lexicalist setting).

Following Bruening (2012), we assume an extra position on top of Voice, PASS, which produces verbal and adjectival passives (as well as nominalizations). These heads introduce Voice-shifting projection (see Alexiadou et al. 2012):



- Both PASS-heads select for VoicePs without specifier; see Bruening (2012) for a possible way of implementation.
- PASS-verbal does not shift the category and the event properties. It basically absorbs the external argument.
- PASS-adj shifts, in addition, the category and stativizes the event (derived stative).

Question: How can we derive the restrictions on *by*-phrases and other modifiers as well as control that we still find in adjectival passives?

We would like to relate this to the **stative semantics of adjectival passives**. The restriction is, therefore, not structural/syntactic/argument structural but semantic (or pragmatic) (more on this by Gehrke & Sánchez-Marco tomorrow).⁴

- This predicts that the examples where *by*-phrases are good are similar/reproducible across languages.
- Furthermore, contextual factors that have been shown to improve *by*-phrases should be identical across languages.
- But what about Greek which is much more productive?

⁴ Gehrke 2012, to appear proposes that in a structure of the type in (37) the event is bound as an event kind, whereas with verbal passives, it is still not bound and can be bound by tense/aspect. From this follow the restrictions on modification: only event kind modification is possible.

5. Why Greek looks more productive but is not

First of all, we observed a great variability in Greek speaker's judgments. Some speakers tolerate *by*-phrases and Control much more than others. Thus for these other speakers, Greek does not differ radically from German/English.

For those speakers that do have different judgments than those reported for German/English, however, we believe, though more contexts have to be investigated, that this is so because **the construction is actually ambiguous between an adjectival passive and the perfect of an eventive passive**. Alexiadou & Anagnostopoulou (2008) in fact argued that this construction has the semantics of the Perfect of Result.

⇒ Two forms of the perfect passive:⁵

A: Have + invariable passive non-finite form (derived from the aorist infinitive)

B: Be + Passive Participle, inflects for gender and number

Historical motivation:

- The Greek participle bears a 'medio-passive' affix, namely *-men-*.
- The string BE + passive participle (BE+PP), which is now the adjectival passive of Modern Greek, was the only way to form the perfect for many centuries in the history of Greek (dating from 4th century BC to nearly 19th century AD), cf. Alexiadou (2012) for discussion.
- Although historically, BE+PP started off as a resultative construction, it grammaticalized into a perfect around the 5th century BC.
- The Modern Greek perfect emerged during the Medieval Greek period out of an earlier 'have' future/conditional tense (basically HAVE + aorist infinitive). This form grammaticalized as a perfect towards the 19th century.

Observation: In contexts which trigger an existential perfect reading, i.e. the result state can be denied, the canonical HAVE perfect passive and BE+PP seem to be interchangeable.

Speakers who do not like *by*-phrases and Control, also do not like (45b/46c), in which BE+PP is used as a perfect passive:

(45) Data found online: both sentences in (a) and (b) are found in the context of *mehri tora* 'uptil now' (this adverb triggers an experiential perfect reading, cf. Giannakidou 2003):

a. To thema ehi diavasti 74 fores.
the issue has read-NACT 74 times
'The issue has been read 74 times.'

b. To thema ine diavasmeno 55 fores.
the issue is read-neut 55 times
'The issue is read 55 times.'

⇒ Further research might lead to the conclusion that the apparent cross-linguistic variation is an illusion.

⁵ The active perfect is always HAVE + invariable active non-finite form.

6. Conclusion

In this paper, we argued:

- Adjectival passives across languages do not seem to differ in terms of the presence/absence of verbal layers (v, Voice).
- The restrictions observed with adjectival passives compared to verbal passives should find a semantic explanation.

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