

Der Himmel hängt voller Geigen – the German Stative Locative Alternation at the syntax-semantics interface

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1. Introduction

- A teaser

(1) ^a *Der Gang steht voll mit Kartons.*
the hallway stands full with cardboard boxes
'The hallway is [standing] full of cardboard boxes.'

- Aims of this talk:

- (i) state the descriptive generalizations governing the use of this underinvestigated construction
- (ii) discuss previous accounts
- (iii) present my own proposal
- [(iv) couch it within a larger context in which many alternations come out as theta-triggered clause-level binding constructions]
- (v) discuss a problem of compositionality

- Terminology:

(2) a. *Kartons stehen im Gang.* BASE ALTERNANT
cardboard.bboxes stand in.the hallway
'There are cardboard boxes standing in the hallway.'

b. ^a *Der Gang steht voll mit Kartons.* SLA⁺
the hallway stands full with cardboard.bboxes
'The hallway is [standing] full of cardboard boxes.'

2. Descriptive generalizations

2.1 Verb class restriction

- Only “stative localizing verbs relating to a (solid) supporting object” partake in the SLA (Kaufmann’s (1995) terminology). In Early New High German, the SLA was productive with a wider array of verb classes (Plank 1983: 6)
- SLV_{SUPPORT} for short

(3) a. *stehen* ‘stand’
^a *Der Gang steht voll mit Kartons.*
the hallway stands full with cardboard boxes
'The hallway is [standing] full of cardboard boxes.'

b. *liegen* ‘lie’
^a *Der Boden lag voll mit Glasscherben [...].*
the floor lay full with broken glass
'The floor was [lying] full of broken glass [...].'

- c. *sitzen* ‘sit’
^a *Das Wartezimmer saß voll mit [...] Flüchtlingen [...].*
 the waiting room sat full with refugees
 ‘The waiting room was [sitting] full of refugees [...].’
- d. *hocken* ‘sit (typically without a back rest or substandard/dialectal form for *sitzen*)’
^a [...] *die Bude hockte voll mit Verwandtschaft.*
 the shack sat full with kinsfolk
 ‘[...] the shack was [sitting] full of kinsfolk.’
- e. *hängen* ‘hang’
^a *Die Wand hing voll mit Bildern [...].*
 the wall hung full with pictures
 ‘The wall was [hanging] full of pictures.’
- f. *stecken* ‘stick/be stuck in’
^a [*Grünkohl*] *steckt voll mit Vitaminen.*
 kale sticks/pokes full with vitamins
 ‘Kale is [sticking/poking] full of vitamins.’
- g. *kleben* ‘stick/be stuck on’
^a [*D*] *as ganze [G]eschirr klebt voll mit Speisebrei*
 the whole dishes sticks/glues full with pap
 ‘The whole dishes are [sticking/glueing] full of pap.’

- Among the SLV_{SUPPORT}, *sitzen* ‘sit’ behaves in slightly idiosyncratic ways. Different senses of this verb have different degrees of productivity.

(4)^{??} *Das Parkett saß voll mit Ehrengästen.*
 the pit sat full with guests.of.honor
 ‘The pit was [sitting] full of guests of honor.’

- In those varieties of German that have it, *sitzen* in its ‘compact posture of gross material’ sense is most productive (northwestern regions of German near the Dutch border).

- (5) a. ^a *Die Pumpe saß voll mit braunem Bakterienschleim.*
 the pump sat full with brown bacteria.slime
 ‘The pump was [sitting] full of brown bacteria slime.’
- b. ^a *Der ganze Körper saß voll mit Ungeziefer.*
 the whole body sat full with vermin
 ‘Its whole body was [sitting] full of vermin.’
- c. ^a [*Der*] *Lüfter saß voll mit Wollmäusen.*
 the fan sat full with dust-bunnies
 ‘The fan [casing] was [sitting] full of dust bunnies.’

- The [+gross] feature belongs in the expressive meaning domain (Potts 2005, Gutzmann 2015). I would like to note in passing that the SLA⁺ (and probably all locative alternations) involve expressive meaning components (mirativity/heightened emotional state; DeLancey 2012). Rich research grounds to be discovered here!

- Kaufmann’s (1996) “stative localizing verbs with a non-solid supporting object” are (rarely) attested in the SLA⁺. They are typically rated as degraded.

- (6) a. ^a *Die ganze Weichsel schwimmt voller Leichname.*
 the whole Vistula swims full.of dead.bodies
 ‘The whole river Vistula is [swimming] full of bodies.’
 b. ^{*2} *Das Wasser schwamm voller kleiner Partikel.*
 the water swam full.of small particles
 int.: ‘The water was [swimming] full of small particles.’

- If the supporting object is contained in some bigger structure, the SLA⁺ with those verbs improves.

- (7) a. ^a *Die Luft schwebt voller Haarspray.*
 the air afloat.in.air full.of hairspray
 ‘The air is [lingering] full of hairspray.’
 b. ^{*2} *Der Nebel schwebte voller Rußpartikeln.*
 the fog afloat.in.air full.of soot.particles
 ‘The fog was [lingering] full of soot particles.’

Near-full productivity of the SLA with the stative localizing verbs relating to a (solid) supporting object:

<i>stehen</i> ‘stand’	<i>liegen</i> ‘lie’	<i>sitzen</i> ‘sit’
<i>hocken</i> ‘squat, sit’	<i>hängen</i> ‘hang’	<i>stecken</i> ‘stick’
<i>kleben</i> ‘stick, be stuck on’		

SLA⁺ involves expressive meaning.

2.2 Location “promotion”

- The locative PP of the base alternant corresponds to the subject DP in the SLA⁺.

- (8) a. *Kartons stehen im Gang.*
 cardboard.bboxes stand in.the hallway
 ‘There are cardboard boxes standing in the hallway.’
 b. ^a *Der Gang steht voll mit Kartons.*
 the hallway stands full with cardboard.bboxes
 ‘The hallway is [standing] full of cardboard boxes.’

- (9) a. *Glasscherben lagen auf dem Boden.*
 broken.glass lay on the floor
 ‘There was broken glass lying on the floor.’
 b. ^a *Der Boden lag voll mit Glasscherben [...].*
 the floor lay full with broken.glass
 ‘The floor was [lying] full of broken glass [...].’

2.3. Locatum demotion/non-atomicity of the locatum referent

- Locatum demotion

- (10) a. *Kartons stehen im Gang.*
cardboard.bboxes stand in.the hallway
'There are cardboard boxes standing in the hallway.'
- b. ^a *Der Gang steht voll mit Kartons.*
the hallway stands full with cardboard.bboxes
'The hallway is [standing] full of cardboard boxes.'

- (11) a. *Glasscherben lagen auf dem Boden.*
broken.glass lay on the floor
'There was broken glass lying on the floor.'
- b. ^a *Der Boden lag voll mit Glasscherben [...].*
the floor lay full with broken.glass
'The floor was [lying] full of broken glass [...].'

- *voll mit* vs. *voller* vs. *voll*

- (12) a. ^a *Der Boden lag voll mit Glasscherben [...].*
the floor lay full with broken.glass
'The floor was [lying] full of broken glass [...].'
- b. *Der Boden lag voller Glasscherben.*
the floor lay full.NAQ broken.glass
'The floor was [lying] full of broken glass.'
- c. *Der Boden lag voll Glasscherben.*
the floor lay full broken.glass
'The floor was [lying] full of broken glass.'

- The locatum referent must be a non-atomic entity.

- (13) *Der Tisch klebte voller Zettel/Butter/Unrat/*Handtuch.*
the table glued full.NAQ sticky notes/butter/debris/towel
'The fridge was [sticking] full of sticky notes/butter/debris/*towel.'

- With *voller*, definite D elements are ungrammatical

- (13') *Der Tische klebte voller (*der/*des) Zettel/Butter/Unrat/*Handtuch.*
the table glued full.NAQ the.GEN sticky notes/butter/debris/towel
'The fridge was [sticking] full of sticky notes/butter/debris/*towel.'

- In the analysis to be developed in section 4, I will treat *voller* as encapsulating *voll*+D+Num+CL.

- Coercion with atomic definites

- (14) *Das Zimmer lag voll mit dem Kostüm.*
the room lay full with the costume
'The room was [lying] full of the costume.'

2.4 Holistic effect

- The English locative alternations as in (15) are well-known for their holistic effect.
- For the SLA⁺, it is clear that the effect stems from the use of *voll* in the construction; cf. (16).

(15) English Dynamic Locative Alternation

- a. *They loaded hay **on trucks***
- b. *They loaded **trucks** with hay*

(16) German Stative Locative Alternation

- a. *Kartons stehen im Gang.*
cardboard.bboxes stand in.the hallway
'There are cardboard boxes standing in the hallway.'
- b. ^a *Der Gang steht voll mit Kartons.*
the hallway stands full with cardboard.bboxes
'The hallway is [standing] full of cardboard boxes.'

- The holistic effect allows for some pragmatic leeway. This does not cast doubt on its existence.
- I take the beautiful explicitness of SLA⁺ to be a guiding line for the assessment of analyses of English alternations involving holistic effects. Favoring generalizing-to-the-worst-case, I think that English alternations make use of covert 'full' predicates. Cast in Plank's (1983) terms, I propose that languages tending towards the "Transparency Principle" (of semantic role perspicuity) should be the model for the analysis of languages tending towards the "Functional Principle" (cf. also Van Valin 1980).

2.5 Reference to substructures

- (17a) and (18a) do not entail (17b) and (18b). (Movement accounts – see below – predict such entailments.)

(17) a. *Der Saal hing voll mit Gemälden.*
the hall hung full with paintings
'The hall was [hanging] full of paintings.'

- b. *Der Saal war voll mit Bildern.*
'The hall was full of paintings.'

(18) a. *Die Zitrone steckte voll mit Saft.*
the lemon stuck full with juice
'The lemon was [sticking] full of juice.'

- b. *Die Zitrone war voll mit Saft.*
'The lemon was full of juice.'

- I assume that, underlyingly, (17a) and (18a) have (contextualized) structures as in (19).

- (19) a. *Der Saal hing (an den Wänden) voll mit Gemälden.*
 the hall hung on the walls full with paintings
 ‘The hall was [hanging] full of paintings (on the walls).’/‘The walls of the hall were full of paintings hanging there.’
- b. *Die Zitrone steckte (innen) voll mit Saft.*
 the lemon stuck inside full with juice
 ‘The lemon was [sticking] full of juice (inside).’
- An effect that surfaces with conjoined locatum arguments supports the assumption of (overt or covert) reference to substructures.
- (20) a. *Die Orange steckte (innen) voll mit Saft und Vitaminen.*
 the orange stuck inside full with juice and vitamins
 ‘The orange was [sticking] full of juice and vitamins (inside).’
- b. [describing an orange decorated with cloves]
Die Orange steckte (innen) voll mit Saft (#und Nelken).
 the orange stuck inside full with juice and cloves
 ‘The orange was [sticking] full of juice and cloves (inside).’

Descriptive generalizations to be accounted for

- (i) verb class restriction: SLV_{SUPPORT}
- [(ii) expressivity]
- (iii) location promotion
- (iv) locatum demotion
- (v) non-atomicity of the locatum referent
- (vi) holistic effect
- (vii) reference to substructures

3. Previous accounts

3.1 The Dutch tradition (Mulder & Wehrmann 1989, Hoekstra & Mulder 1990)

- A movement account in the tradition of the typical analyses for passives of that time

- (21) a. [NP_{MATERIAL} LOC]_{SC} V (base)
 [*dass Kisten*_i [t_i *im Gang*] *stehen*].
 that boxes in.the hallway stand
 ‘that boxes are standing in the hallway.’
- b. [NP_{LOC} voll MATERIAL]_{SC} V (SLA⁺)
 [*dass [der Gang]*_i [t_i *voll mit Kisten*] *steht*].
 that the hallway full with boxes stands
 ‘that the hallway is [standing] full of boxes.’

- Note that the alternants have different SC structures.

- This captures:
 - (i) location “promotion”
 - (ii) locatum “demotion”
 - (iii) non-atomicity of locatum (if *voll* has the right selectional restriction)
 - (iv) the holistic effect (trivially)
- Problems:
 - (i) parallel subcategorization requirement for the locata/material arguments in either alternant is not modelled; missing locality in (22b)

(22) a. [NP_{MATERIAL} LOC]_{sc} V (base)
 [*dass Kisten*_i [t_i *im Gang*] *stehen*[#]*liegen*].
 that boxes in.the hallway stand/lie
 ‘that boxes are standing[#]lying in the hallway.’

b. [NP_{LOC} *voll* MATERIAL]_{sc} V (SLA⁺)
 [*dass [der Gang]*_i [t_i *voll mit Kisten*] *steht*[#]*liegt*].
 that the hallway full with boxes stands/lies
 ‘that the hallway is [standing[#]lying] full of boxes.’

- (ii) double theta-marking of the locatum/material argument in (22a); the alleged landing position behaves like a theta-marked position, not like the subject position of a raising verb; cf. (23)-(25)

(23) *Die Kisten standen und standen und standen im Gang.*
 the boxes stood and stood and stood in.the hallway
 ‘The boxes were standing, and standing, and standing in the hallway.’

(24) *The children were laughing, and laughing, and laughing.*
 (theta position of S)

(25) [#]*The boxes seemed, and seemed, and seemed to have been forgotten for good.*
 (raising verb)

- (iii) We identified substructure PPs in 2.5 than can *salva veritate* be inserted in each and every case in the position of the alleged movement trace.

(26) a. *Der Saal hing (an den Wänden) voll mit Gemälden.*
 the hall hung on the walls full with paintings
 ‘The hall was [hanging] full of paintings (on the walls).’/‘The walls of the hall were full of paintings hanging there.’

b. *Die Zitrone steckte (innen) voll mit Saft.*
 the lemon stuck inside full with juice
 ‘The lemon was [sticking] full of juice.’

- The long and the short of this is that movement is probably not the right distance relationship between the subject position of the SLA⁺ and the uppermost position in the small

clause.

- In section 4 I will argue that (theta-head related Knight Move) binding is the relationship that captures the property in a neater fashion..

3.2 Bücking & Buscher (2015)

- The authors propose a lexicalist type coercion analysis in Asher's (2011) type composition logic framework
- The burden that empty elements or movements carry in the Dutch syntax tradition is shifted to a rich lexicon with presuppositional and selectional adjustments which are triggered as needed in the course of composition.
- Bücking's & Buscher's (2015) syntax is surface-oriented.

(27) ... *dass* 4[*der Saal* 3[2[*voll* 1[*mit Gemälden*]₁]₂ *hing*]₃]₄.
that the hall full with paintings hung
'...that the hall was [hanging] full of paintings.'

- 2 describes a Kimian state (a state that is located in time, but not in space).
- In 3, a lexically derived variant of *hängen* 'hang' with existential closure of the locatum referent wants to select a predicate of a Davidsonian state.
- This doesn't go together with the Kimian state predicate in 2.
- A variant of a type adjustment rule already envisaged by Asher (2011: 225) solves the problem. After applying this rule, a Kimian state may be selected by a Davidsonian state of something hanging somewhere.
- Technically, this appears to work (as far as I can tell; the proposal is not one that dispenses with heavy notation).
- However, the generality and restrictiveness of the proposal is hard to pin down, because no other related constructions such as *spray/load* alternations or *swarm* alternations are discussed.
- I see two major problems with the analysis. The first issue concerns the analysis of *voll* 'full' states as Kimian states. The data in (28) shows beyond doubt that *voll* predications are localizable and must, hence, be Davidsonian states.

- (28) a. *Die Jacke war (an den Ärmeln) voll mit Fusseln.*
the jacket was at the sleeves full with lint
'The jacket had its sleeves full of lint.' (lit.: 'The jacket was full of lint on its sleeves.')
- b. *Der Flur war (am Eingang) voll mit Unrat.*
the hall was at.the entrance full with debris
'The hall was full of debris at the entrance door.'

- The evidence that Bücking & Buscher (2015: 96) adduce in favor of Kimian statehood for *voll* states as embedded in the SLA⁺ does, in my opinion, not hold up to closer scrutiny, either; consider (29). (Judgments are Bücking & Buschers', but I changed the tense in the examples from present tense to preterite.)

- (29) a. *Ich sah Fahrräder im Keller stehen.*
 I saw bicycles in.the basement stand
 'I could see bicycles standing in the basement.'
- b.* *Ich sah Fahrräder im Keller sein.*
 I saw bicycles in.the basement be
 'I could see bicycles be in the basement.'
- c.?? *Ich sah den Keller voll mit Fahrrädern stehen.*
 I saw the basement full with bicycles stand
 'I saw that that the basement was [standing] full of bicycles.'

(29a) is good, because standing is a Davidsonian state, which may be embedded under a verb of perception, because it can be localized. (29b) is degraded, and the reason that the authors give is that being inside the basement is a Kimian, non-localizable, state. (29c) is said to be intermediate in acceptability, and the authors claim that this is due to the fact that the verb of perception licitly embeds a Davidsonian state in the outer *stehen* shell of the SLA⁺, and that, illicitly, a Kimian 'full' state is embedded one shell further down.

I would like to propose different judgements and different reasons for degraded judgements in (29). (29b) is bad because it competes with the less prolix (30).

- (30) *Ich sah Fahrräder im Keller.*
 I saw bicycles in.the basement
 'I could see bicycles in the basement.'

I would thus like to argue that the preposition *in* comes with a Davidsonian state argument, and not with a Kimian state argument. (29c), finally, is impeccable if it is embedded in a discourse as in (31).

- (31) [I came home yesterday, and I noticed immediately that something was different. The front door was open. I entered the hall, and I saw mud and soil on the floor, obviously stemming from dirty bicycle tires. I followed the traces down into the basement, and...]
 ... *ich sah den Keller voll mit Fahrrädern stehen.*
 I saw the basement full with bicycles stand
 '...I saw that the basement was [standing] full of bicycles.'

In a way, these problems are not a real threat for Bücking & Buscher's (2015) proposal. If the criticism just stated is justified, the authors could simply say that no coercion is needed in the end and that, on this assumption, the Davidsonian states of standing in (29a)/(31), and the one of hanging as in (27), simply embed other Davidsonian states of being full of bicycles, or paintings. This move would simplify their analysis to a considerable extent.

There is, however, another cluster of properties that will probably require further adjustments. It was argued above that the second argument referent of *voll* 'full' in the SLA⁺ cannot be the same as the subject referent of the whole construction. The crucial data is summarized in (32).

- (32) a. *Der Saal hing voll mit Gemälden.*
 the hall hung full with paintings
 ‘The hall was [hanging] full of paintings.’

--> *Der Saal war voll mit Gemälden.* ‘The hall was full of paintings.’

- b. *Die Zitrone steckte voll mit Saft.*
 the lemon stuck full with juice
 ‘The lemon was [sticking] full of juice.’

--> *Die Zitrone war voll mit Saft.* ‘The lemon was full of juice.’

(32a) may be true in a scenario in which a large exhibition room has not a single thing standing on its floor, but its walls are filled all over with paintings. Put differently, only a substructure of the hall is full of paintings. Therefore, the negated entailment stated in the last line of (32a) holds. In a similar vein, in a scenario in which a lemon was bursting with juice as in (32b), it is not true to conclude that the lemon is full of juice. Only a suitable substructure is, maybe its pulp, or the individual segments (or even those little pulp atoms) inside the fruit. It would seem to follow from Bücking & Buscher’s (2015) analysis, though, that the negated entailments of (32) should hold as non-negated ones. As, on their account, the subject of the SLA⁺ is fed into composition as the second argument of *voll* ‘full’ after the main verb has been merged to contribute its posture or configuration entailments, there is no way around this conclusion.

Therefore, one may probably say that Bücking & Buscher’s (2015) proposal doesn’t do full empirical justice to the facts that constrain the use of the SLA and that it doesn’t illustrate the kind of type coercion rendered possible by Asher’s (2011) flexible type logic calculus.

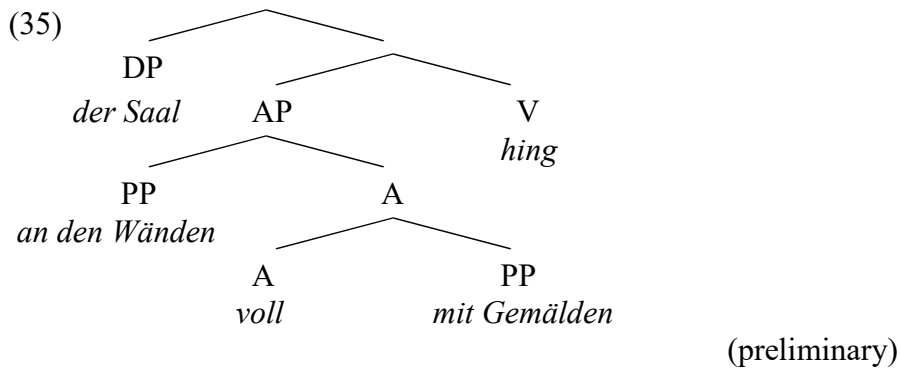
4. A proposal in terms of theta-induced Knight Move Binding

- (33) summarizes the things that should fall out of the account developed in this section.

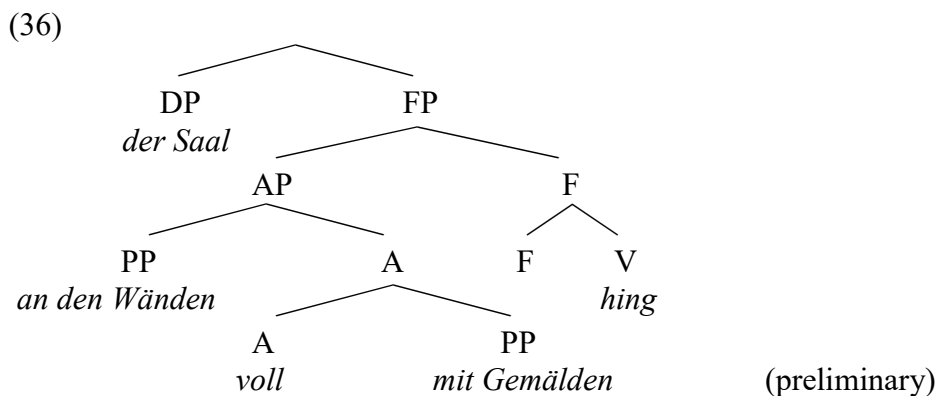
- (33) a. verb class restriction: SLV_{SUPPORT}
 [b. expressivity
 c. location promotion
 d. locatum demotion
 e. non-atomicity of the locatum referent
 f. holistic effect
 g. reference to substructures

- (34) *dass der Saal (an den Wänden) voll mit Gemälden hing.*
 that the hall on the walls full with paintings hung
 ‘The hall was [hanging] full of paintings (on the walls).’/‘The walls of the hall were full of paintings hanging there.’

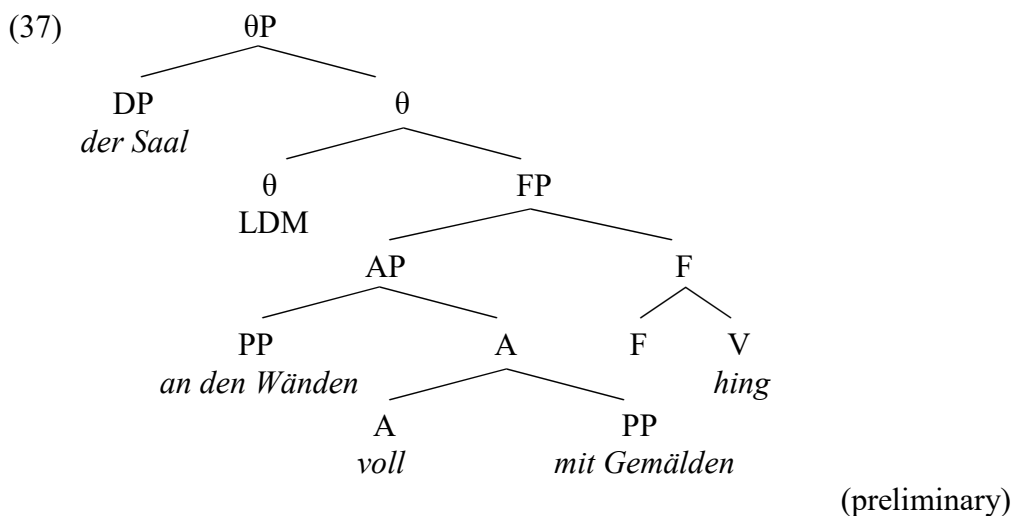
- A first attempt



- Inside the AP, this may work. The subject DP does not appear to be (theta-)licensed in the right way, though. (The hall does not hang. The hall is the location at which something else hangs.)
- Plus, the argument structure of canonical *hing* would predict another overall structure.
- Thanks god we have invisible functional heads to take care of the latter problem.



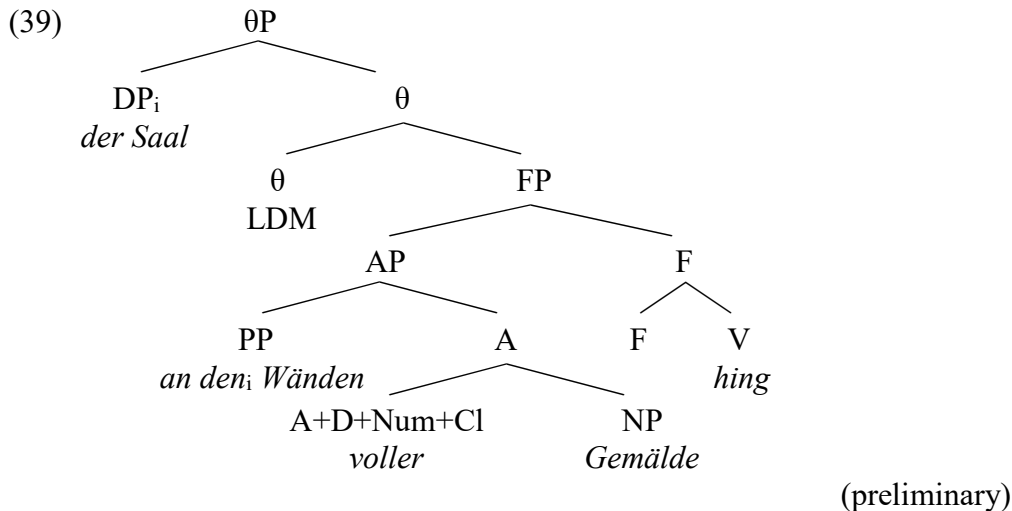
- Now let's theta-mark *der Saal* as a locative, or landmark (Hole 2014).



- In Hole's (2008, 2012, 2014) theory, each theta head may come in a flavor which triggers binding. In the wake of Hole (2008) and Kratzer (2009), the pertinent index is *underneath* the theta head (binding is driven by verbal functional heads).

- (39) depicts this in a more traditional way; but see the sample derivation below.

(38) *dass der Saal (an seinen/den Wänden) voll mit Gemälden hing.*
 that the hall on its/the walls full with paintings hung
 ‘The hall was [hanging] full of paintings (on its walls).’/‘The walls of the hall were full of paintings hanging there.’

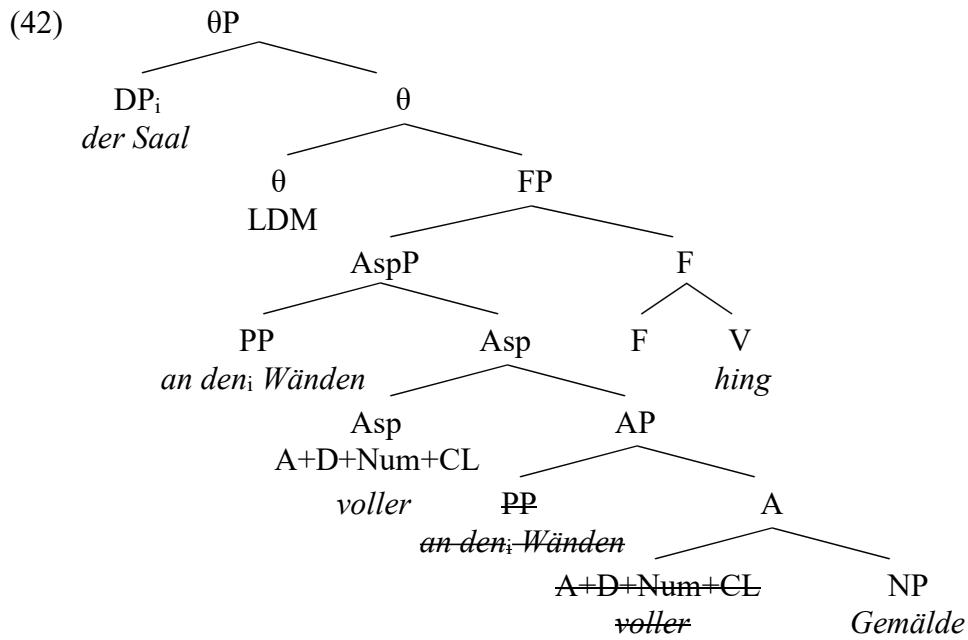


- (39) does not just introduce a binding configuration. It also proposes a multiply fused *voller* head that allows us to make more sense of the pattern repeated as (40).

(40) a. *Der Tisch klebte voller (*der/*des) Zettel/Butter/Unrat/*Handtuch.*
 the table glued full.NAQ the.GEN sticky notes/butter/debris/towel
 ‘The fridge was [sticking] full of sticky notes/butter/debris/*towel.’
 b. *Der Tisch klebte voll mit (den) Zetteln/ (der) Butter.*
 the table glued full.NAQ with the sticky notes/ the butter
 ‘The fridge was [sticking] full of the sticky notes/the butter.’

- The last refinement is for the syntactically inclined only. It models what used to be a small clause in older approaches as a semi-finite AspP with movement of *voller* to the inflectional head, and of the “subject” PP to the edge. This is in the spirit of den Dikken (2008). Maybe one can make semantic sense of this by saying that the AspP is related to the culmination/full semantics of *voller*; but I haven’t worked this out properly.
- The simplified truth-conditions of such structures will come out as in (41).

(41) a. $[[DP]]$ is the landmark of the $[[V]]$ -state of $[[DP]]$ ’s $[[PP]]$ substructure being full of non-atomic $[[NP]]$ material.
 b. The hall is the landmark of the hanging state of the hall’s walls being full of paintings.



(final)

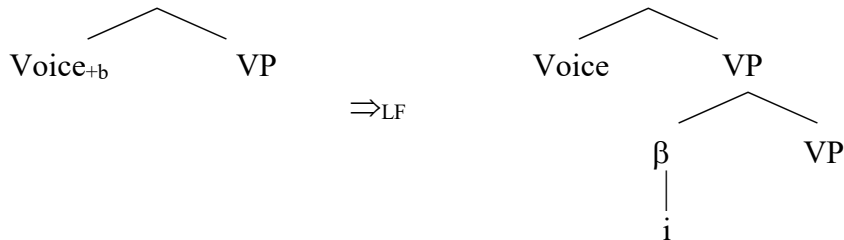
- Like this, the landmark DP is not just part of the event by way of presupposition, but also by way of a locative entailment.
 - Crosscheck:
- (43) a. ? verb class restriction: stative localizing verbs relating to a (solid) supporting object
 b. ✓ location “promotion”
 c. ✓ locatum “demotion”
 d. ✓ non-atomicity of the locatum referent
 e. ✓ holistic effect
 f. ✓ reference to substructures

5. Theoretical significance and generality

- The proposed analysis of the SLA⁺ is couched within a larger endeavor aiming at analyzing many alternations with the same toolkit (inspired by Kratzer 2009, developed in Hole 2008, 2012, 2014):
 - (i) **no movement** of the highest construction-specific argument; instead: licensing/theta-marking in the higher position (landmark, experiencer, ...) → no A-movement or A'-movement in alternations
 - (ii) **binding** of a variable at the left edge of a co-phasal argument (Knight Move Binding) → locality, binding instead of movement
 - (iii) **binding originates in theta-heads** → clause-level binding as a phenomenon that is tied to verbal functional heads/theta heads

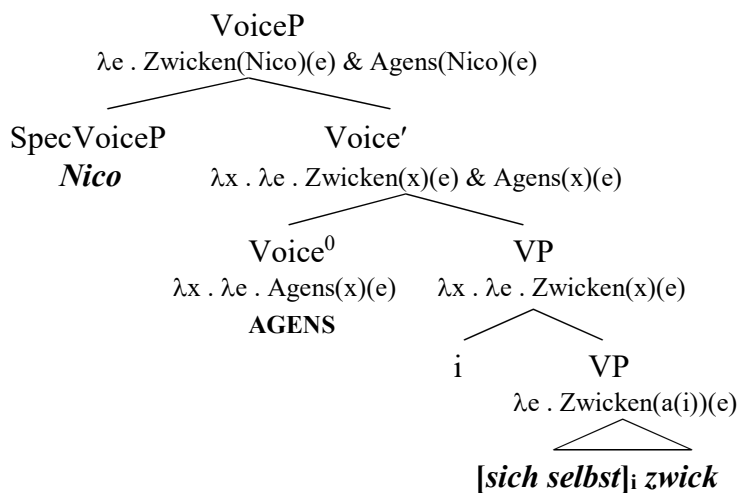
- The toy categories for which this program was first carried out in an agent-severed and, more generally, theta-severed framework :
 - reflexivity
 - free datives

(44) Binder Rule for the agent-oriented reflexive voice (BR-R)

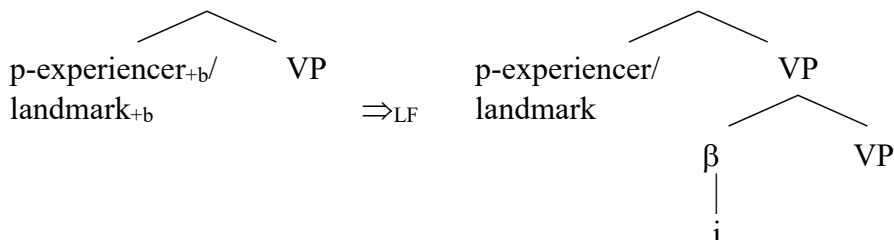


(45) a. ... dass Nico sich selbst zwickt
 '... that Nico is pinching himself.'

b. For any assignment a:



(46) Binder Rule for the Free Dative voice (BR-D)



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Appendix

(i) dispenses with the aspectual layer introduced in (42). The way (i) is designed, the culmination aspect hypothesized to justify the aspectual category in (42) is already built into the denotation of *voller*. I submit that the AspP of (42)

is a semantically void bit of structure that provides the AP with a syntactically required minimal degree of finiteness to allow it to be used as a small clause. The internal structure of the PP in (i) is left implicit; but cf. xxx.

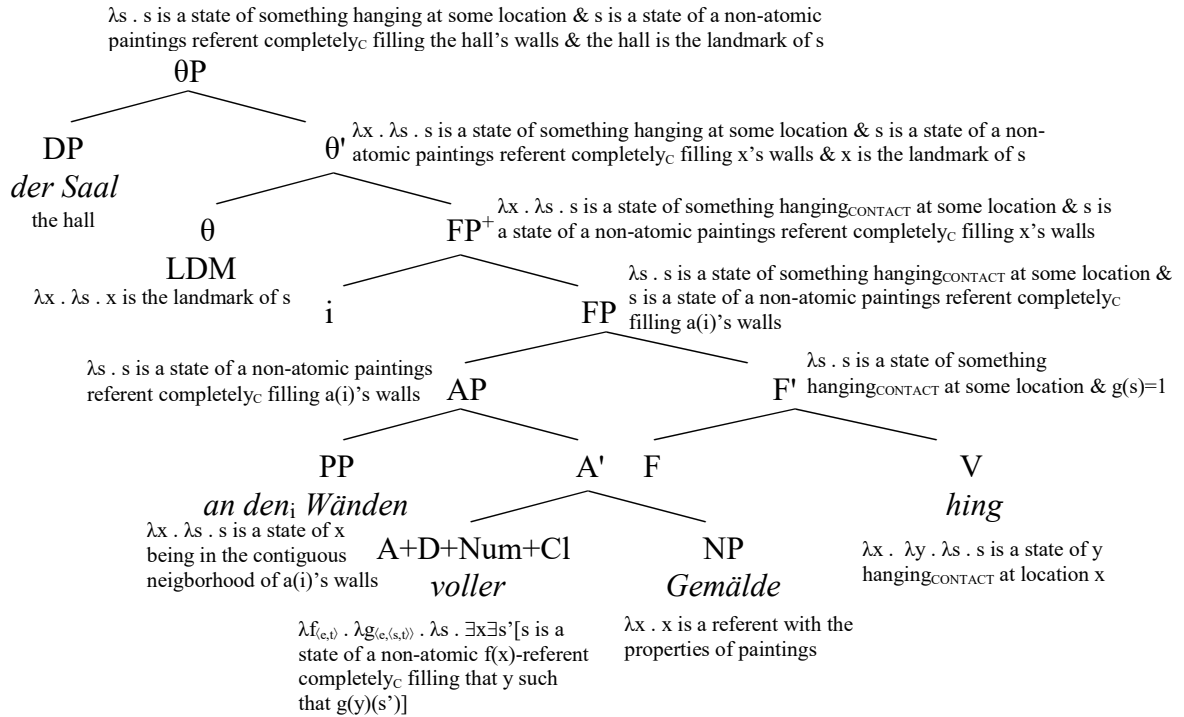
The analysis has three important ingredients: (a) *voller*; (b) the functional head F; (c) LDM_[+b] with the ensuing structure expansion that inserts a bare index right underneath the landmark head. (i) just depicts the structure after the application of BR-X.)

(a) *Voller*: (i) features the fused *voller* head which, arguably, encompasses not just the ‘full’ semantics of *voll*, but also divisibility implications pertinent to its complement denotation that stem from the fused D, Num and Cl structure. It has a contextual variable built into it that allows for pragmatic leeway regarding the matter as to what should count as ‘completely full’.

(b) F: F is the most important element in the structure. It provides functional alternation glue, as it projects the structure which takes the verb as its complement, and the AP as its specifier. It existentially binds the individual variables of its sister. As the state *s* of the F' denotation is identified with the state *s* of the AP denotation by way of Davidsonian Predicate Modification at the level of FP, it is ensured that the painting referents and the walls' neighborhoods come out as those referents that correspond to the existentially bound variables of the *hing* predication. The denotation of F comes with a presupposition/selectional restriction which requires its specifier (the AP) to denote a ‘full’-predication. This ensures that not just any function of type $\langle s,t \rangle$ is allowed to occur in SpecF. At the present point, I have not much to say to independently justify this idiosyncratic selectional restriction. Something like this is needed though, as only APs headed by *voll*, *randvoll*, *übertoll* etc. lead to well-formed structures.

(c): LDM_[+b] with its binder feature is a theta head which, as a consequence of its binder feature [+b], triggers the structure expansion as rendered visible by the bare index underneath it in (i). As a result of this expansion, the binder feature has been eliminated in (i). The make-up of the FP⁺ subtree of (i) triggers Predicate Abstraction (Heim & Kratzer 1998). As a consequence, a predicate is abstracted over the pronominal location/whole argument inside *an den Wänden* ‘on its walls’. As was the case at the FP level, the two daughter nodes of θ' are combined by Davidsonian Predicate Modification (Hole 2014: 92). In this case, Predicate Modification does not just ensure the identity of the individual arguments *x*, but also of the state argument *s*. Like this, a true semantic binding relationship between the landmark referent *der Saal* ‘the hall’ and the possessor of the walls obtains.

(i) For any assignment a, context C and number i:



$\llbracket A' \rrbracket = \lambda g_{(e,(s,t))} . \lambda s . \exists x \exists s' [s$ is a state of a non-atomic paintings referent completely_C filling that y such that $g(y)(s')$]

- Alternative zur einfachen existenziellen Bindung durch F:

$\llbracket F^2 \rrbracket = \lambda f_{(e,(e,(s,t)))} . \lambda g_{(s,t)} . \lambda s . \exists x \exists y [f(x)(y)(s) \ \& \ g(s)=1]$, defined iff g describes a state of something being full of something else

- Oder *voll(er)* mit einem superhohen Typ ausstatten?
- Ich favorisiere die Lösung wie im Baum dargestellt, bin mir aber über die kompositionale Zulässigkeit nicht im Klaren.