1. Introduction

- empirical domain: the Stative Locative Alternation (SLA) in German

(1) a. Menschen stehen auf dem Platz.
‘There are people standing on the square.’
b. Der Platz steht voll mit Menschen.
lit.: ‘The square is standing full of people.’/‘The square is full of people standing there.’

- An aside: voll mit has the near-synonymous variants voll and voller. I have nothing to say about this variation (but cf. Zeldes 2013).

(2) Der Platz steht voll mit/voll/voller Menschen.
lit.: ‘The square is standing full of people.’/‘The square is full of people standing there.’

- Aims:
  (i) provide a syntactic and semantic analysis in the footsteps of Mulder & Wehrmann’s (1989) and Hoekstra & Mulder’s (1990) proposals for Dutch;
  (ii) demonstrate that probably no LOCATUM/MATERIAL movement is involved;
  (iii) subsume the SLA under the rubrum ‘θ-related binding alternation’.

2. Descriptive generalizations and previous studies

2.1 Location “promotion”

(3) a. Menschen stehen auf dem Platz. (base)
‘People are standing on the square.’
b. Der Platz, steht voll mit Menschen. (SLA)
‘The square is full of people standing there.’

(4) a. LOCATUM – verb – LOCATIONPP (base)
b. LOCATIONNOM – verb – voll mit – LOCATUM (SLA)
2.2 Locatum “demotion”

(5) a. *Menschen*_{NOM} stehen auf dem Platz. (base)  
   ‘People are standing on the square.’
   
b. *Der Platz steht voll mit Menschen*_{PP}. (SLA)  
   ‘The square is full of people standing there.’

(6) a. *LOCATUM*_{NOM} – verb – LOCATION (base)  
   b. LOCATION – verb – *voll mit* – *LOCATUM*_{PP} (SLA)

2.3 Holistic effect

- The meaning contributed by *voll* ‘full’ in the SLA is the same as that which distinguishes the English location-first alternant in (7) from the locatum-first alternant in (8).

(7) a. *He sprayed the wall with paint* (The wall is full afterwards.)
   b. *She loaded the truck with hay.*
   c. *The garden was swarming with bees.*

(8) a. *He sprayed paint onto the wall.*
   b. *She loaded hay onto the truck.*
   c. *Bees were swarming in the garden.*


(9) a. V [NP_{MATERIAL} LOC]_{SC}  
   *(Es) stehen Menschen auf dem Platz.*
   
b. V [NP_{LOC} voll MAT]_{SC}  
   *(Es) steht der Platz voll mit Menschen.*

   (i) NP_{MATERIAL} in (9a) is theta-marked by the external argument role of the locative PP.
   (ii) In (9b), NP_{LOC} is an argument of *voll* ‘full’
   (iii) *Voll* ‘full’ is the overt spell-out of the predicate which is responsible for the holistic effect.
   (iv) MAT is another argument of *voll*.
   (v) The left/higher argument of the SCs in (9) then moves up to become the subject of the whole structure.
   (vi) On both construals, V imposes selectional restrictions on MAT/NP_{MAT}.
(10)a. Zettel\textsuperscript{i} / Kerzen kleben auf dem Kühlschrank.
   ‘There are sticky notes/candles sticking on the fridge.’
   (only good if the candles are not upright)
b. Der Kühlschrank klebt voll mit Zettel\textsuperscript{i} / Kerzen.
   ‘The fridge is full of sticky notes/candles sticking on it.’
   (only good if the candles are not upright)

- **Conclusion 1** drawn by M&W/H&M:
  The two construals have differing underlying argument structures in all languages with the alternation, irrespective of how the *voll* morpheme is realized, if it is realized overtly at all. (✓)

- **Conclusion 2** drawn by M&W (114):
  “To account for the facts in [(10)] we can assume that in these cases selectional requirements are imposed on the relation between the verb and the SC as a whole, irrespective of the SC-internal order of MAT and LOC.” (😊)

- **Strategy pursued below**: Have all selectional requirements fulfilled in a more perspicuous way.

2.4 The verb class: Stative Localizing Verbs with a Firm Supporting Object
   (Kaufmann 2006)

(11) Alternating unaccusative verbs
a. hängen ‘hang’
   "Der Himmel hängt voll mit Geigen.
   ‘Heaven is full of violins (+ T/ l→ /suspension).’"
b. stehen ‘stand’
   "Der Gang steht voll […] mit Kartons.
   ‘The aisle is full of cardboard boxes (+ □ /vertical filling).’"
c. stecken ‘be stuck in’
   "[Diese Frucht] steckt voll mit Vitaminen.
   ‘This fruit is full of vitamins (+ stuck/tight posture).’"
d. kleben ‘be joined to something with a sticky substance’
   "[D]as ganze Eß- und Kochgeschirr klebt voll mit Speisebrei.
   ‘The whole dishes and pots are full of pap (+ stick/“surfacy” contact).’"
e.  *sitzen*  ‘be in (contact with)’ (of a compact entity) [NOT (primarily) ‘sit’]
   
   a) *Das ganze Kornfeld saß voll mit diesen Maikäfern.* (i)
   ‘The whole grainfield was full of these ladybugs (+ compact posture).’
   
   b) *Die Pumpe saß voll mit braunem Bakterienschleim.*
   ‘The pump was full of brown bacteria slime inside (+ compact posture).’

   **UNCLEAR ACCEPTABILITY PATTERN WITH sitting posture**

   e’.  *Das Parkett sitzt voll mit Ehrengästen.*
   ‘The parquett is full of guests of honor sitting there.’

   e”.  *Der Platz sitzt voll mit Ehrengästen.*
   int.: ‘The square is full of guests of honor sitting there.’

   ❓ There may be a dimensionality issue here which pertains to LOCATION.

f.  copular verbs *sein*  ‘be’, *bleiben*  ‘remain’
   
   *Der Gang ist/bleibt voll mit Kartons.*
   ‘The aisle is/remains full of cardboard boxes.’

2.5 *Locatum atom*

- The LOCATUM/MATERIAL in SLA must be mass, plural, or abstract.

(12)a.  **BASE**

   **Die Statue/**(Die) Statuen /**(Das) Wasser stand(en) im Keller.**
   ‘The statue/(The) Statues/(The) Water was/were in the basement in an
   upright position, or filling it vertically.’

   b.  **SLA**

   **Der Keller stand voll mit *der Statue/**(den) Statuen/**(dem) Wasser.**
   ‘The basement was full of *the statue/(the) statues/(the) water.’

- There are good examples with definite singular LOCATUM PPs. They
  involve collective interpretations.

(13)  **Das Zimmer lag voll mit dem Kostüm.**
   ‘The room was full of the costume (lying there).’
   (The costume has several parts.)
2.6 Location “promotion”?

- Recall that Mulder & Wehrmann (1989) and Hoekstra & Mulder (1990) assume
  (i) different small clause structures for BASE and SLA
  (ii) whose left arguments end up as the subject of the whole structure:

  (14)a. \[ \text{[NP}_{\text{MATERIAL}} \text{ LOC]}_{\text{SC}} \text{ V (BASE)} \]
  \[
  \begin{array}{c}
  \text{dass } \text{Menschen}_{i} \quad \text{t}_{i} \\
  \text{auf dem Platz stehen.}
  \end{array}
  \]

  b. \[ \text{[NP}_{\text{LOC}} \text{ voll MAT]}_{\text{SC}} \text{ V (SLA)} \]
  \[
  \begin{array}{c}
  \text{dass [der Platz]}_{i} \quad \text{t}_{i} \\
  \text{voll mit Menschen steht.}
  \end{array}
  \]

- An argument that the subject of the SLA is in fact not \text{NP}_{\text{LOC}} of the SC:

  (15)a. stative passiv
  \[ \text{Der Kühlschrank ist verschmutzt mit Öl und umgekippter Sahne.} \]
  ‘The fridge is dirty with oil and spilled cream.’
  \text{The oil may be outside on the surface, and the cream inside.}

  b. SLA
  \[ \text{Der Kühlschrank klebt voll mit Zetteln und umgekippter Sahne.} \]
  ‘The fridge is full of sticky notes and spilled cream.’
  \text{The sticky notes and the cream must be on the same substructure of the fridge.}

  (16) \[ \text{Diese Weihnachtsorange steckt voll mit Nelken und Vitaminen.} \]
  ‘This Christmas orange is full of cloves and vitamins.’
  \text{The cloves and the vitamins must be part of the same substructure of the orange, contrary to world knowledge.}

  (17) \[ \text{Die Decke saß voll mit Milben und Stofftieren.} \]
  ‘The duvet was full of mites and plush toys.’
  \text{The mites and the plush toys must be part of the same substructure of the duvet, contrary to world knowledge.}

- Structure (14b) does not predict this behavior.
- Here is a structure with binding which does. The effect comes out as a kind of strict-identity pattern (as opposed to sloppy identity).
NPLOC of the small clause is a neighborhood region DP now with a possessor variable bound by the (base-generated) subject: ‘x’s neighborhood region N’

World knowledge and context restrict the contextualized interpretive range in each case:
- x’s surface
- x’s inside
- x’s top
- x’s bottom
- x’s side(s)
- x’s walls
- x’s ceiling
...

Das Zimmer hing voll mit Bildern/Spinnweben/Lampen/Girlanden.
‘The room was full of pictures/cobwebs/lamps/festoons.’

The neighborhood region expression can occur overtly.

Die Decke saß innen voll mit Milben.
‘The duvet was full of mites inside.’

3. An analysis in terms of θ-related binding

3.1 SLA and θ-related binding

The proposal:
(i) The subject of the SLA has its own local theta-role: LANDMARK
(ii) The LANDMARK θ-head comes with a binding requirement (like AGENTS of reflexive clauses, free datives and others; see below)
(21) Binder Rule for the LANDMARK alternation

\[
\begin{align*}
\text{DP} & \quad \text{LANDMARK}+b \quad \text{VP} \\
\text{DP} & \quad \text{LANDMARK} \quad \text{VP}
\end{align*}
\]

\[\Rightarrow_{LF}\]

- Together with a ban on vacuous quantification, this will make sure that the LANDMARK DP binds a variable in the VP (The resulting structure in (21) triggers Predicate Abstraction; Heim & Kratzer 1998, Hole 2008, 2012)

(22) … dass \(\text{[der Gang]}_{\text{LDM}} \ i \ [[\text{pro},'s \text{Nachbarschaftsregion N}]_{\text{LOC}} [\text{mit Kartons}]_{\text{MAT}} \text{voll}]\) steht.
‘… that the aisle pro’s neighborhood region N with boxes full stands’

    c. *[Der Gang mit Kartons voll] soll stehen.

(24)

\[
\begin{align*}
\text{[der Gang]} & \quad \theta_{\text{LDM}} \\
\text{i} & \quad \text{VOLL}_{\text{SC}}
\end{align*}
\]

\[\text{pro,'s neighborhood region N mit Kartons voll}\]

(25) \text{voll (MATERIAL) (pro,'s neighborhood region N) (SLV}_{\text{firm/locative BE)}
= \text{There is a non-atomic referent y such that } pro,’s \text{neighborhood region N is completely full of } y \text{ in the SLV posture}
\& \ y \text{ has the MATERIAL property}
• What this buys us:
  (i) the selectional restrictions within the VOLL\textsubscript{SC} constituent follow, because \textit{voll} takes all other major constituents as arguments and can "manage" the relations between them;
  (ii) the strict-identity effect of (15)-(17) follows;
  (iii) the important insights of previous analyses are preserved;
  (iv) it allows us to identify the SLA as just another instance of \(\theta\)-related (Knight Move) Binding alternations (cf. 3.2).

• What it doesn’t cover:
  (i) the non-atomic locatum restriction is just stated, but not derived;
  (ii) case
  (iii) the restriction on $SLV\textsubscript{firm}$ is not explained (*schwimmen, *schweben ‘swim/float’).

3.2 Other instances of \(\theta\)-related binding/Knight Move Binding (Hole 2005, 2008, 2012, to appear)

• “Possessor” datives
• “Beneficiary” datives
• Reflexivity
• …

(26) General \(\theta\)-related Binder Rule (BR-X)

\[
\begin{array}{c}
\alpha \\
\theta+b \quad \beta \\
\langle e, \langle s, t \rangle \rangle \\
\langle s, t \rangle \quad \Rightarrow_{LF} \quad \theta \\
\langle e, \langle s, t \rangle \rangle \\
\Rightarrow_{\gamma} \\
\langle s, t \rangle
\end{array}
\]

(27) \textbf{LANDMARK} binder with some free datives

\%	extit{Dem Haus LDM} \textit{i läuft Wasser in den/seinen} \textit{Keller}.
‘The house has water seeping into its basement.’
(28) **EXPERIENCER** binder with some free datives

*Paul backte Maria **EXP i zu ihrem** i **Nutzen einen Kuchen.***

‘Paul baked Maria a cake to her benefit.’

(29) **AGENT** binder with reflexives (cf. Hole 2008, Kratzer 2009)

*Paul **AGT i zwickte [sich selbst]**.*

‘Paul pinched himself;’

...

4. … and English?

- English has *voll* ‘full’ morphemes.
  
  (i) pronounced: *full of dirt*
  
  (ii) unpronounced (Mulder & Hoekstra 1989): *load the truck full with hay, The garden is swarming full with bees*

- Why doesn’t it have the SLA?

(30) *The square is standing full of people.*

- possible reason I: English *sit, stand(?), lie* are more closely tied to agentivity. (How?)

(31)a. The magazines were ("deliberately) lying on the floor.

→‘The magazines would have intentions.’

b. Die Zeitschriften lagen (absichtlich) auf dem Boden.

→‘Somebody else has intentions.’

- possible reason II: limit on the number of unpronounced constituent parts of the SLA:

(32)a.* The aisle stands **pro’s neighborhood region N full of boxes.***

b. *The aisle has**[LDM] its floor full of boxes.

(33) *Der Gang steht **pro’s neighborhood region N voll mit Kartons.***
5. Conclusions

- A non-movement analysis of the German SLA…
- …making use $\theta$-induced binding…
- …which can be used to model other alternations, too.
- no explanation of the $\text{SLV}_{\text{firm}}$ restriction

6. References


