

Accusative Case in PPs

Boban Arsenijević, University of Amsterdam (b.arsenijevic@uva.nl)

Berit Gehrke, Universitat Pompeu Fabra (berit.gehrke@upf.edu)

1. Introduction

Case alternation in PPs

In some Indo-European languages (most Slavic ones, Latin, Ancient Greek, German), a number of prepositions with spatial meanings take nominal complements in two different cases: an oblique case (e.g. dative, locative, or instrumental) (1), and accusative (2).

- (1) a. Elena čitala knigu na avtobuse. Russian
Elena read book.ACC on bus.LOC
'Elena read a/the book on a/the bus.'
- b. Hans schob den Wagen in dem Graben. German
Hans pushed the.ACC cart in the.DAT ditch
'Hans pushed the cart inside the ditch.'
- (2) a. Elena položila knigu na sumku. Russian
Elena put book.ACC on bag.ACC
'Elena put a/the book on a/the bag.'
- b. Hans schob den Wagen in den Graben. German
Hans pushed the.ACC cart in the.ACC ditch
'Hans pushed the cart into the ditch.'

More traditional accounts:

- P assigns accusative in the context of a change of state (location), accusative is linked to the denotation of a goal
- P assigns oblique case if the PP modifies the location of the entire event

Problem: requires two lexical entries for each preposition showing this behavior

Goal of the paper:

- to treat the Ps under question as one single lexical entry, expressing a locative relation between Figure and Ground only
- to formulate generalizations about the assignment of accusative inside PPs
- to develop a more general analysis of case assignment

2. Generalizations

not all Ps display case alternation:

- if at all, only locative PPs can appear with both cases
- there are locative Ps that only appear with an oblique case and thus do not alternate
- lexically directional Ps do not alternate (goal and source Ps appear with dative and/or genitive case, route Ps appear with accusative case)

this paper: focus on accusative case in alternating Ps - Serbo-Croatian (S-C), German (G)

leave aside: Ps that do not alternate; correlation with word order variation in languages like Dutch (see Gehrke 2008)

(G1) Accusative case is assigned irrespective of the preposition, but directly depending on the relation established between the denotations of the verb and the PP.

In S-C, the complements of PPs referring to the location of the event appear with instrumental (projective Ps, Zwarts & Winter 2000) or locative (non-projective Ps):

- (3) a. Olovka je bila pod/nad/pred/za kutijom. S-C
 pen.NOM Aux been under/above/in_front_of/behind box.INST
 ‘The pen was under/above/in front of/behind a/the box.’
- b. Olovka je bila u/na kutiji. S-C
 pen.NOM Aux been in/on box.LOC
 ‘The pen was in/on a/the box.’

In German, the oblique case in the relevant examples is always dative:

- (4) Der Stift war unter/über/vor/hinter/in/auf/neben der Kiste. G
 the pen was under/above/in_front_of/behind/in/on/next_to the.dat box
 ‘The pen was under/above/in front of/behind/in/on/next to the box.’

When the particular PPs refer to the final location, i.e. the goal of an eventuality, their complements appear in the accusative:

- (5) a. Bacio je olovku pod/nad/pred/za/u/na kutiju. S-C
 thrown Aux pen.ACC under/above/in_front_of/behind/in/on box.ACC
 ‘He threw the pen under/above/in front of/behind/in/on a/the box.’
- b. Er warf den Stift unter/über/vor/hinter/in/auf/neben die
 he threw the.ACC pen under/above/in_front_of/behind/in/on/next_to the.ACC
 Kiste. G
 box
 ‘He threw the pen under/above/in front of/behind/in/on/next to the box.’

different types of relations between verb and PP:

- i. stative verbs like *be, remain, stay* (3), (4): cannot refer to a change of state or location and do not involve entities undergoing a change of state or location (UNDERGOERS, van Valin & LaPolla 1997); only allow PPs with locative but not with accusative case, i.e. the PP can only modify the entire event but cannot specify a goal of the event
- ii. many verbs that can refer to a movement or a change of state or location, like manner of motion verbs (*swim, dance, walk*), semelfactives (*jump*), change of state or location verbs that optionally combine with PPs to refer to a final location (e.g. *throw* in (5b))¹
- iii. change of location verbs like *put* (2a): require a PP complement to refer to the final location of the undergoer; a locative PP is necessarily interpreted as the final location, which results in a PP with accusative case; a PP with an oblique case is not possible²

¹ For example, a verb of throwing can also simply combine with a PP with a complement bearing oblique case, which would then refer to the overall location of the throwing event. In this case the final location of the undergoer is not specified or might not even exist (i.e. it might be a random throwing around event, which likens these examples to semelfactives) (i).

- (i) Sie warf den Stift in der Kiste. G
 she.NOM threw the.ACC pen in the.DAT box
 a. ‘She threw the pen, which was inside the box.’
 b. ‘She threw the pen, while standing inside the box.’

(G2) *Accusative case can be assigned to a nominal expression appearing as the complement of a preposition only if the eventuality also involves an entity undergoing a change.*

- (6) a. Bacio je olovku u kutiju. S-C
 thrown Aux pen.ACC in box.ACC
 ‘He threw a/the pen in a/the box.’
- b. Sie hängte die Wäsche an die Leine. G
 She hung(kaus)the.ACC laundry on the.ACC line
 ‘She hung up the laundry.’
- (7) a. Olovka je bila u kutiji/*u. S-C
 pen.NOM Aux been in box.LOC/*ACC
 ‘A/the pen was in a/the box.’
- b. Pamtio je scenu u pozorištu/*e. S-C
 remember Aux scene.ACC in theater.LOC/*ACC
 ‘He remembered a/the scene in the theater.’
- c. Die Wäsche hing an der/*die Leine. G
 the.NOM laundry hung on the.DAT/*ACC line
 ‘The laundry was hanging on the line.’

Sometimes the undergoer is not explicitly expressed, but is implicit or contextually given:

- (8) a. Udario je u drvo. S-C
 hit Aux in tree.ACC
 ‘He hit into a/the tree.’
- b. Sie schoss in die Wand. G
 she.NOM shot in the.ACC wall
 ‘She shot into the wall.’
- c. Er richtete die Kamera auf die Hauptdarstellerin. G
 he.NOM pointed the.ACC camera on the.ACC main_actress
 ‘He pointed the camera at the main actress.’

² Unless it is adjoined to a VP that already contains a PP with accusative case. Relevant examples from German are given in (ii).

- (ii) a. Sie legte den Stift auf den Tisch im Zimmer. G
 she.NOM put the.ACC pen on the.ACC table in_the.DAT room
 ‘She put the pen on the table in the room.’
- b. Im Zimmer legte sie den Stift auf den Tisch.
 in_the.DAT room put she.NOM the.ACC pen on the.ACC table
 ‘In the room, she put the pen on the table.’

In (ia), the acc-PP is the PP complement of *put* and refers to the final location of the undergoer (i.e. *the pen*), whereas the dat-PP is preferably interpreted as a DP-internal modifier, specifying the location of the table. In (iib), the dat-PP modifies the entire event by specifying its overall location, in which case the sentence-initial position of the PP is usually preferred (see also Maienborn 2003 for the differentiation between internal and external locatives).

(G3) PPs taking a nominal complement in accusative always denote a secondary resultative predicate of the undergoer of a change of location.

PPs with complements in accusative express a predicate of the result subevent. The subject of the result subevent is the undergoer of change: the result of the change is that the undergoer bears a certain property. The undergoer is the internal argument of the main verb and thus is assigned accusative in the default case.

- (9) a. Roberta hat den Laster auf den Hügel gefahren. G
Roberta.NOM has the.ACC truck on the.ACC hill driven
'Roberta drove the truck onto the hill.'
- b. Mačka se sakrila pod krevet. S-C
cat.NOM Refl.ACC hidden under bed.ACC
'The/a cat went to hide under the bed.'

Apparent counter-examples to this generalization:

cases where the undergoer does not bear accusative but some other case such as INST or NOM

- (10) a. Marija je udarila rukom u jastuk. S-C
Marija.NOM Aux hit hand.INST in pillow.ACC
'Marija hit into the pillow with her hand.'
- b. Marija je udarila ruku u radiator. S-C
Marija Aux hit hand.ACC in radiator.ACC
'Marija hurt her hand on a/the radiator.'

- the undergoer can be realized by a direct object in accusative only if it is not simultaneously an instrument, i.e. if the eventuality is not controlled by the agent. It seems here that two cases compete to be assigned to the undergoer/instrument, accusative and instrumental, and the latter wins.

- (11) Jovan je seo pred automobil. S-C
Jovan.NOM Aux sit_down in_front_of car.ACC
'Jovan sat down in front of a/the car.'

- unaccusative structures: old question why the logical object, appears as the subject of the sentence and with the nominative case.

- (12) a. Hans sprang in den Fluss. G
Hans.NOM jumped in the.ACC river
'Hans jumped into the river.'
- b. Das Boot trieb an die andere Seite des Sees. G
the.NOM boat drifted at the.ACC other ACC side the.GEN lake.GEN
'The boat drifted to the other side of the lake.'
- c. Sie tanzten auf die Bühne. G
they.NOM danced on the.ACC stage
'They danced onto the stage.'

- Debate in the literature: Are these resultatives (e.g. Neeleman & van de Koot 2002 vs. Rothstein 2004, see also Levin & Rappaport Hovav 1995)?

3. Summary of the facts and questions to be answered

- case alternations of complements to PPs involve two cases, one of which is accusative and the other oblique.
- accusative is typically a structural case assigned to the direct object of the verb.
- only locative Ps license case alternation (meanings like IN, ON, BEHIND, UNDER); those involving a component of direction (TOWARDS, FROM) or degree (FROM, UNTIL) combine with nominal expressions in only one case.
- PPs with an accusative case complement establish a particular relation with the verb they combine with, by being secondary resultative predicates over the internal argument of the verb – the undergoer of the event.
- for a PP with accusative case to be possible, it is crucial that the verb itself allows for a change of state or location interpretation with respect to the respective argument (the undergoer), and that the PP can be interpreted as the final value of the property of the undergoer that is subject to change.

Questions:

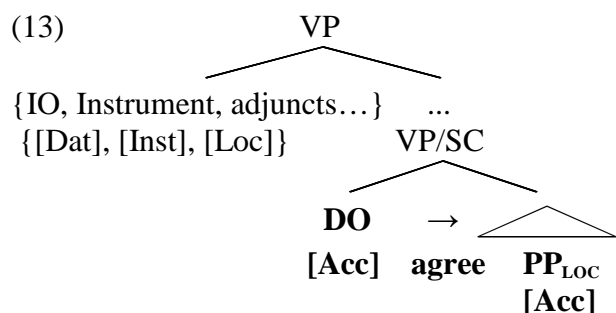
- Q1 - why is the same case assigned to the undergoer and the complement of PP?
- Q2 - what is the relation established with the verb, and how is it established?
- Q3 - why only locative meanings?
- Q4 - what is the status and the nature of the oblique case with these Ps?

4. The account

Our account is compatible with different structures proposed for the VP and its resultative predicate. In the paper, we use Hoekstra's (1988) small clauses (SC), without necessarily committing to more particular aspects of his view. In a similar fashion, we take that accusative case is assigned to direct objects in the specifier of a functional projection that we mark as VP, but which corresponds to Borer's (2005) FP. It is, however, necessary for our account that this phrase projects immediately on top of the structure that represents the resultative predicate. We identify two possible general accounts.

4.1. Agreement

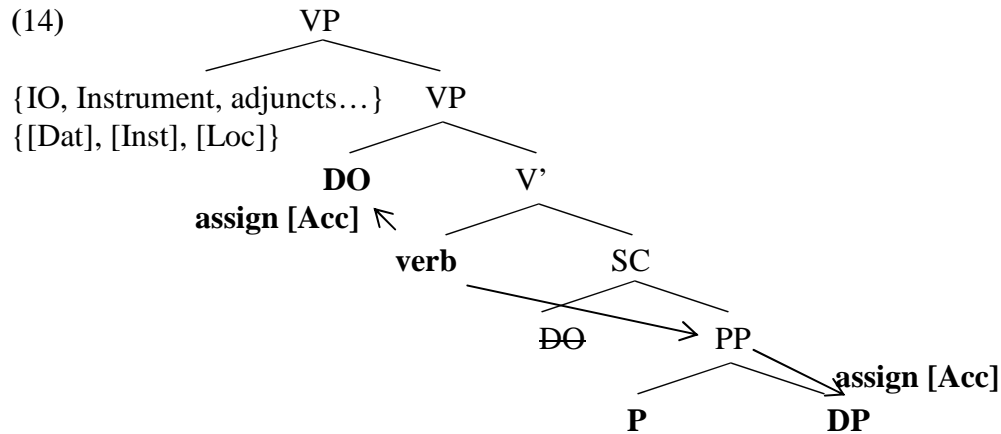
There is an agreement relation between the undergoer and the resultative predicate, established within the structure representing the resultative predication.



- Q1 - agreement in the VP domain targets case (while the agreement of the TP domain targets phi-features) – hence case on the complement of PP comes from agreement.
- Q2 - only undergoers may have a resultative predicate, and the availability of this role depends on the interpretation made available by the verb.
- Q3 - bare locative meanings satisfy the minimality requirements for agreement – a further projection on top of the locative one intervenes for agreement.
- Q4 - the oblique case is always there, inherent to the respective locative meanings, but it is overwritten by the structural case when agreement takes place.

4.2. Assignment

VPs with resultative meanings involve a local relation between the verb and the resultative because the undergoer moves from the resultative to SpecVP; due to this locality, accusative is assigned by the verb to the locative PP; the locative component is lexicalized by the P, but the case stays the one assigned by the verb.



Q1 - the verb assigns accusative to all the local arguments; since the subject of SC has moved, and is assigned accusative too, the local domain is extended to the predicate of SC.

Q2 - only verbs with meanings that can combine with resultatives may merge in the V head projected by a resultative predicate.

Q3 - locative meanings satisfy the minimality requirements for case assignment – a further projection on top of the locative one intervenes for case assignment.

Q4 - the oblique case is always there, inherent to the respective locative meanings, as a weaker specification of case, but it gets overwritten if structural case is assigned.

The answers from the later account are illustrated in more detail in section 5, on different kinds of examples.

4.3. Discriminating data

We identified one problem for the agreement story, coming from the object-oriented secondary predicates that are bound to the result subevent, but denote a depictive rather than a resultative.

- (15) a. Jovan ostavi Mariju u bolnici. S-C
 Jovan left Marija.ACC in hospital.LOC
 ‘Jovan left Marija in the hospital.’
- b. Hans hat Maria im Krankenhaus gelassen. G
 John has Mary.ACC in_the.DAT hospital left
 ‘John (has) left Mary in the hospital.’

- the agreement story incorrectly predicts that the direct object should still agree with the complement of PP (all the requirements satisfied: result subevent, minimality, secondary predication).

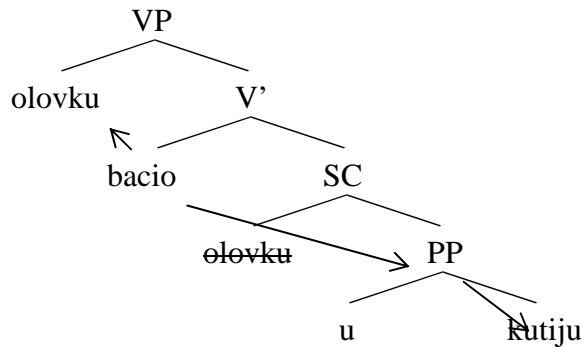
- the assignment story correctly predicts that no accusative case will be assigned to the complement of PP because although indeed, as required, the subject of the secondary predicate moves to the position where accusative is assigned, the secondary predicate is a depictive, and hence should not be immediately dominated by VP, i.e. is not local to the verb.

5. Accounting for the observed regularities

Accusative PPs

- (16) Bacio je olovku u kutiju.
 thrown Aux pen.ACC in box.ACC
 'He threw a/the pen in a/the box.'

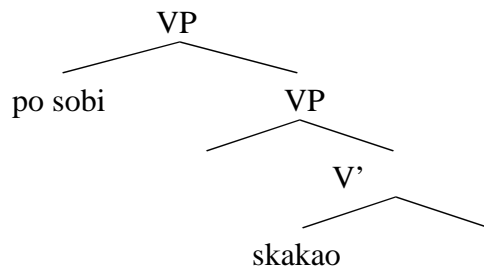
S-C



Oblique PPs that modify the entire VP

- (17) Skakao je po sobi.
 jumped Aux over room.LOC
 'He jumped around the/a room.'

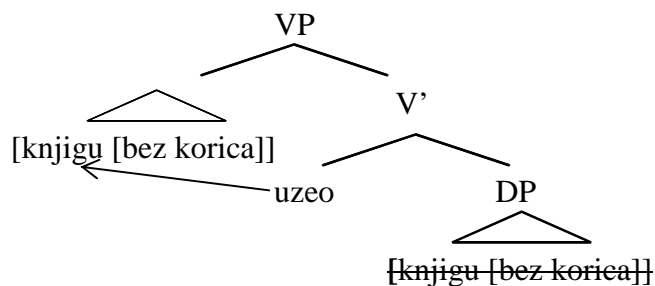
S-C



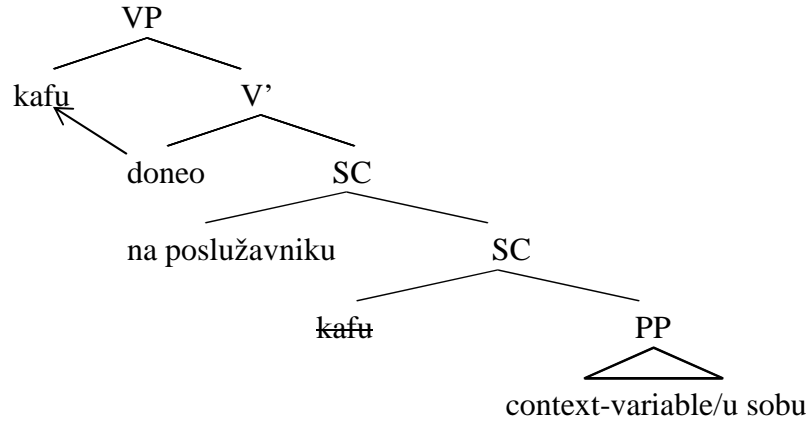
VP-internal oblique PPs

- (18) a. Uzeo je knjigu bez korica.
 took Aux book.ACC without cover.GEN
 'He took a/the book without covers.'

S-C

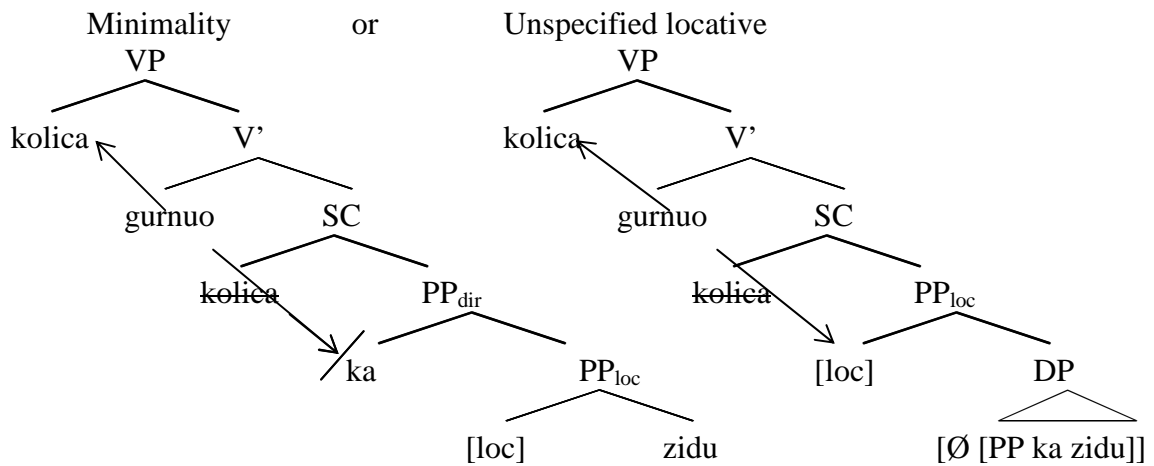


- b. Doneo je kafu na poslužavniku (u sobu). S-C
 brought Aux coffee on tray.LOC in room
 'He brought a/the coffee on a/the tray (into a/the room).'

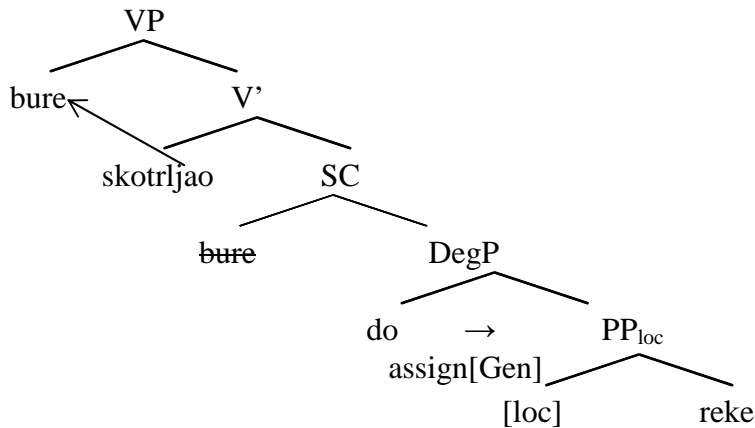


Directional PPs that do not appear with accusative

- (19) a. Gurnuo/pomerio je kolica ka zidu. S-C
 pushed/moved Aux trolley.ACC towards wall.DAT
 'He pushed/moved a/the trolley towards a/the wall.'



- b. Skotrljao je bure do reke. S-C
 rolled_down Aux barrel.ACC till river.GEN
 'He rolled a/the barrel down to the river.'



Some evidence of the universal presence of DegP with prepositions like *do*:

- (20) a. Spustio je korpu 3 metra do zemlje. S-C
 move_down Aux basket.ACC 3 meters to ground.GEN
 'He got a/the basket to 3 meters from the ground(-level).'

DOES NOT ENTAIL:

Korpa je do zemlje.
 basket.NOM is to ground.GEN
 'The basket is next to the ground(-level).'

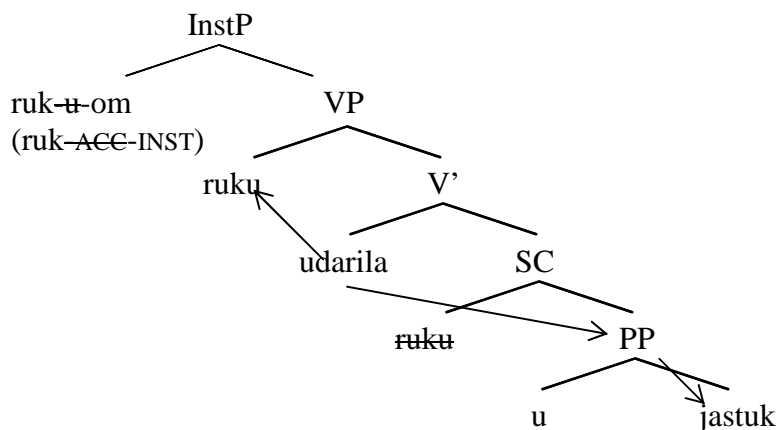
- b. Spustio je korpu 3 metra u zemlju. S-C
 move_down Aux basket.ACC 3 meters in ground.ACC
 'He got a/the basket 3 meters into the ground.'

ENTAILS:

Korpa je u zemlji.
 basket.NOM is in ground.LOC
 'The basket is in the ground.'

Overwriting the structural case

- (21) Marija je udarila rukom u jastuk. S-C
 Marija.NOM Aux hit hand.INST in pillow.ACC
 'Marija hit into the pillow with her hand.'



6. Conclusion

- Accusative is always a structural case.
- Locative PPs denote pure locations, without the component of direction: the goal component is derived in the VP by the appearance of the PP in the resultative position.
- The projection in which the locative meaning is specified does not intervene for case assignment to the nominal expression.
- Accusative case in goal PPs is best accounted for in terms of assignment by the verb, under conditions of locality.
- Case can be assigned more than once: every time it is assigned, it overwrites the one previously present on the nominal expression.

7. References

- Arsenijević, Boban. 2006. *Inner Aspect and Telicity: The Decompositional Nature of Eventualities at the Syntax-Semantics Interface*. Doctoral Dissertation, Leiden University. LOT Dissertation Series 142.
- Borer, Hagit. 2005. *Structuring sense, Volume 2: The normal course of events*. Oxford: Oxford University Press.
- Gehrke, Berit. 2008. *Ps in Motion: On the Semantics and Syntax of P Elements and Motion Events*. Doctoral Dissertation, Utrecht University. LOT Dissertation Series 184.
- Hoekstra, Teun. 1988. Small Clause Results. *Lingua* 74:101-139.
- Levin, Beth. 1993. *Verb Classes and Alternations: A Preliminary Investigation*. Chicago: The University of Chicago Press.
- Levin, Beth & Malka Rappaport Hovav. 1995. *Unaccusativity: At the Syntax-Lexical Semantics Interface*. Linguistic Inquiry Monograph 26. Cambridge, MA: MIT Press.
- Maienborn, Claudia. 2003. Event-internal modifiers: Semantic underspecification and conceptual interpretation. In *Modifying Adjuncts*, ed. Claudia Maienborn, Ewald Lang & Catherine Fabricius-Hansen, 475-509. Berlin: de Gruyter.
- Neeleman, Ad & Hans van de Koot. 2002. Bare resultatives. *Journal of Comparative Germanic Linguistics* 6:1-52.
- Rothstein, Susan. 2004. *Structuring Events: A Study in the Semantics of Lexical Aspect*. Oxford: Blackwell.
- Van Valin, Robert D., Jr. & Randy J. LaPolla, 1997. *Syntax: structure, meaning, and function*. Cambridge: Cambridge University Press.
- Zwarts, Joost & Yoad Winter. 2000. Vector space semantics: A modeltheoretic analysis of locative prepositions. *Journal of Logic, Language and Information* 9.2:169-211.