

## THE CASE OF RESTRICTED LOCATIVES

### Sinn und Bedeutung 23, Barcelona, September 5-7, 2018

#### 1. INTRODUCTION: THE PUZZLE

The **locative case in Latin** only appears with names of towns, cities, small islands and a few common nouns (1b) including *domus/domi* ‘home’, *rus/ruri* ‘countryside’ and *humus/humi* ‘ground’ (henceforth, *L-nouns*). All other toponyms and common nouns require a preposition

- (1) a. *iacēre humi* Gildersleeve and Lodge 1876:266  
 lie.INF ground.LOC  
*to lie on the ground*
- b. *Militēs Albae cōstitērunt in urbe opportūnā.*  
 soldiers Alba.LOC halted in city.ABL convenient.ABL  
*The soldiers halted at Alba, a conveniently situated town.*
- (2) a. *Pompeius in Thessaliam pervenit.* Woodcock 1959:4  
 Pompey in Thessaly.ACC arrived  
*Pompey arrived in Thessaly.*
- b. *Me potius in Hispania fuisse tum quam Formiis!* Woodcock 1959:36  
 I.ACC able in Spain.ABL be.PERF.INF then than Formiae.LOC  
*To think of my having been in Spain at that time rather than at Formiae!*

Cannot be a morphological restriction on the distribution of the locative case suffix (which is syncretic with other cells in the paradigm anyway): exactly the same set of lexical items uses bare **accusative** case-marking **for allative** and bare **ablative** case-marking **for the source**:

NB: The directional accusative can appear also with some country names (Woodcock 1959:4-6). No explanation yet

- (3) a. *Missī lēgātī Athēnās sunt.* Gildersleeve and Lodge 1876:214  
 sent.PL envoys Athens.ACC are  
*Envoys were sent to Athens.*
- b. *Innumerābilēs (philosophī) numquam domum revertērunt.*  
 innumerable philosophers never home.ACC returned  
*Innumerable philosophers never returned home*
- (4) a. *(Verrēs) omnia domō ēius abstulit.* Gildersleeve and Lodge 1876:249  
 Verres everything house.ABL his took.away  
*Verres took everything away from his house.*
- b. *Dolābella Dēlō proficīscitur.* Gildersleeve and Lodge 1876:251  
 Dolabella Delos.ABL depart  
*Dolabella sets out from Delos.*

And it is not the case that the use of a preposition is excluded:

- (5) a. *ut a Mutina discederet* Latin sources, via Allen et al.  
 so.that from Modena.ABL retire.SBJ  
*that he should retire from Modena (which he was besieging)*
- b. *ad Alesiam proficiscuntur*  
 to Alesia.ACC advance.3PL  
*they set out for Alesia*

Intuition: only L-nouns can make use of accusative and ablative cases to function as sources or goals

This is not an isolated case: lexical-semantic restrictions on the availability of locative cases are very common cross-linguistically

## 2. THE CORE OF THE SOLUTION: THE SEMANTICS OF LOCI

Many different technical approaches to the semantics of spatial prepositions (Bierwisch 1988, Wunderlich 1991, Zwarts and Winter 2000, Kracht 2002, Bateman et al. 2010, etc.). All agree: **locative prepositions operate with loci** (regions, sets of points, sets of vectors, etc.)

Directional prepositions might be more complicated

We minimally need the semantic **type for loci** and a function to **map an entity to its locus**

Wunderlich 1991: the *eigenspace* of an entity is the region that it occupies (obtained by the application of the primitive function **EIGEN**)

A preposition applies to a locus (e.g., a set of points) and returns another locus



All this is a simplification. Prepositions can introduce additional restrictions (e.g., *on* requires contact rather than orientation) and may relate not to the object itself but only to its (relevant) boundaries (cf. Matushansky and Zwarts 2017). But for our present purposes this is good enough

Creary, Gawron and Nerbonne 1989 (building on Jackendoff 1983, cf. Larson 1987): just as NP arguments can be pronominalized, quantified over and give rise to ACD, so can locatives:

- (7) a. Bill sang **everywhere** Mary sang/did.  
 b. Al lives *on the Ohio*, and Ed works **there**.

The core outcome is: there is a semantic domain that deals with loci and their relationships to each other

If an NP already denotes a locus, the (locative) preposition is not necessary

**L-nouns in Latin denote loci**, which is why they do not need a preposition (or an external theta-role, cf. Emonds 1987, Barrie and Yoo 2017)

- L-nouns form a **closed class**: only those that denote loci
- **L-demonstratives** (e.g., *here*, *there*) receive a natural explanation

Alternatives:

- Kayne 2005: English locative adverbials should be derived from a complex structure (~~this~~ *here* **PLACE**).
- Collins 2008 (cf. Katz and Postal 1964): null preposition with L-demonstratives, thus accounting for their bare uses, same for the bare use of *home* and the light locative *place* (see also Larson 1985)

Tie-breaker: **L-pronouns** (cf. the French clitics *en* and *y*), which are morphologically simplex

## 3. THE BIGGER PICTURE

The hypothesis that some nouns can denote in the locative domain explains multiple puzzles in a number of languages that do not restrict their locatives in precisely the same ways.

In **Russian**, the true locative case is only available for demonstratives, simplex wh-words and their existential derivatives, and the universal quantifier, as well as the noun *dom* 'home':

here is also the so-called *locative II*, which is restricted to location-denoting nouns of the second (consonantal) declension. As this is a case assigned by a preposition, the matter seems to be subtly different here

- (8) a. gde 'where', kudá 'whereto', ot.kúda 'wherefrom'  
 b. zdes'/tut 'here', sjudá 'to here', ot.sjúda 'from here'  
 c. tam 'there', tudá 'to there', ot.túda 'from there'  
 d. vezde, vsjúdu '(to) everywhere', oto.vsjúdu 'from everywhere'
- (9) dóma 'at home', domój 'homeward'

The locative preposition *te* in **Modern Dutch** is used only in highly formal register with city names and with the noun *huis* 'home' (Broekhuis 2013:88, minor variation exists):

- (10) a. Jan vestigt zich te Amsterdam. Broekhuis 2013:88  
 Jan settles REFL in Amsterdam  
*Jan is settling in Amsterdam.*
- b. \*Jan vestigt zich te Frankrijk/deze stadt.  
 Jan settles REFL in France this city

The directional/locative *he* was productive in **Biblical Hebrew** (Hoftijzer 1981, Waltke and O'Connor 1990, Arnold and Choi 2003, Medill 2013), but is limited to a handful of location-denoting nouns in **Modern Hebrew** (Zewi 2013)

- (11) ka-aseret alafim iš higiú le-latrun be-darkam yerušalayma Zewi 2013  
 like-ten thousands person arrived to-Latrun in-way.POSS<sub>3PL</sub> Jerusalem.DIR  
*About ten thousand people arrived at Latrun on their way to Jerusalem.*

It turns out that locative cases frequently have restricted distribution:

- |         |  |   |
|---------|--|---|
| (12) a. | locative case<br>restricted to L-nouns               | Latin; directional <i>he</i> in Modern Hebrew; Maltese: Borg 1987-1988; Itzaj Maya: Hofling 2000:219; also the Dutch <i>te</i><br>Russian, English: D + <i>dom</i> 'home', French: locative clitics |
| b.      | locative case-marking optional or absent for L-nouns | Biblical Hebrew: Waltke and O'Connor 1990; Tswana: Creissels 2009; Western Armenian: Guekguezian 2011; Yimas: Foley 1991:165, 170-171; Gurr-goni: Green 1995:35                                     |
| c.      | special locative case forms for L-nouns              | Hungarian (a handful of toponyms and a few common nouns): Rounds 2001:118; Agul, Archi, Avar, Lezgian, etc.: Daniel and Ganenkov 2009; Basque (de Rijk 2007:57)                                     |
| d.      | locative cases & genitive only for L-nouns           | Bagvalal: Daniel and Ganenkov 2009, Diyari: Austin 2013:52  |

Lexically restricted locations and paths can explain these patterns:

- |         |   |  |
|---------|---|--|
| (13) a. | locative case-marking<br>restricted to L-nouns          | only L-nouns denote loci (as in Latin)   |
| b.      | locative case-marking<br>optional or absent for L-nouns | only L-nouns denote loci; for all others locative case-marking indicates the presence of a null preposition that assigns it  |
| c.      | special locative case<br>forms for L-nouns              | only L-nouns denote loci, as in (12/13a), and have it marked with special morphology. For all others the default locative case results from the presence of a null preposition, as in (12/13b) |
| d.      | locative cases & genitive<br>only for L-nouns           | L-nouns denote loci with no corresponding entity-correlates  |

The complementary case-marking in languages like (12a) vs. (12b) shows that the locative-case label cannot correspond to the same structure across languages

The pattern in (12c) is a combination of the two options in (12a) vs. (12b)

The pattern in (12d) is the source of the appositive genitive (*the city of New York*), shows that the unmarked transition (coercion) from a locus to the corresponding object denotation may be unavailable (no morpheme for **EIGEN**<sup>+</sup>)

The basic dichotomy between locus-denoting and object-denoting nouns translates into a split in function of other parameters of a given language

#### 4. PATHS AND DIRECTIONALS

Bierwisch 1988, Koopman 2000, Tungseth 2003, Zwarts 2005, among others: directional PPs are more complex (semantically and syntactically)

Bierwisch 1988: directional prepositions are specified [+ dir]

Koopman 2000: for directional interpretation, a locative PP must be contained in the functional projection PathP

Zwarts 2005: directional PPs contain a Path function, in addition to the location

- (14) general consensus

Path<sup>0</sup> explains the directional/locative case alternation in Indo-European (Bierwisch 1988, den Dikken 2003, 2010, Zwarts 2005, 2006, Lestrade 2006, 2010, Caha 2010):

- (15) a. Multos annos Gallia **sub imperio Romano** fuit. locative  
 many years Gaul under rule.ABL Roman.ABL be.PRET  
*For many years Gaul was under Roman rule.*
- b. **Sub imperium Romanum** Gallia cecidit. directional  
 under rule.ACC Roman.ACC Gaul fall.PRET  
*Gaul fell under the Roman rule.*

Reasonable assumption: the accusative of direction results from the presence of the allative Path<sup>0</sup>

One technical option is that the case assigned by Path<sup>0</sup> overrides that assigned by Place<sup>0</sup> (cf. Pesetsky 2013), or that the two cases are combined (as in Matushansky 2008, 2010, 2012, but see also Svenonius 2003)

The same is true for the accusative used as allative with L-nouns:

- (16)

The ablative PathP requires a stipulation: assuming that FROM is covert (as shown by (4)), the overt preposition (*ab, ex*) in ablative PPs results from Place-to-Path movement:

- (17) a. b.

Issues:

- the source of the locative case
- the availability of overt prepositions

Radkevich 2010: for case, the morphological picture is actually more complex, including the features Distal, Motion, Orientation and Aspect:



Radkevich's picture (see also Mel'čuk 1994) is closer to that of Kracht 2002, distinguishing *configuration* and *mode* components in the locative (with the latter including the static mode, for non-directionals)

## 5. THE SOURCE OF THE LOCATIVE CASE

If L-nouns denote in the spatial domain, they should not combine as NPs do

Non-restrictive modification does not remove the ability to function as a locative (*meae domī* 'at my home' (Plautus, *Aulularia* 432 via Calabrese 2008); *proximae viciniae habitat* 's/he lives nearby' (Plautus, *Bacchidae* 2, 2, 27)), yet **restrictive modification generally blocks the bare locative** (cf. Donaldson 1860:314).

Conversely, locative PPs can function as modifiers of entities (NP-internally) or events (VP-internally):

- (19) a. a house in New York  
 b. to live/walk in New York

For the former case, direct composition is impossible; **must shift from a locus** (however it is defined) **to a set of entities** (type  $\langle e, t \rangle$ ). A very reasonable assumption for the latter case as well

Hence  $\text{EIGEN}^-$ : maps a locus to the set of entities (type  $\langle e, t \rangle$ ) that are located at this locus:

- (20)  $\text{EIGEN}^- =_{\text{def}} \lambda l . \lambda x . \text{EIGEN}(x) \subseteq l$   $\text{EIGEN}^- (\text{above} (\text{EIGEN} (\llbracket \text{the TV} \rrbracket)))$



$\text{EIGEN}^-$  **cannot be a lexical part of spatial prepositions**, since spatial PPs can be augmented by directional prepositions and modified:

- (21) a. [from [under the bed]]  
 b. [[six feet] [behind the house]]

The measure phrase and the directional preposition do not combine with something of the type  $\langle e, t \rangle$ , they need access to the spatial representation (e.g., a set of vectors, Zwarts and Winter 2000)

Which means that transition to the predicate type happens at a higher level than the modifier and can be accomplished by a functional head (the  $p^0$  of Svenonius 2003, cf. Kratzer 1996 for  $v^0$ )

Svenonius 2003: the case assigned to the Ground is assigned by  $p^0 + P^0$  (or  $p^0$  alone), cf.  $v^0$

We can now explain the locative cases in the locative/directional case alternation: more than one case can be used:

- (22) a. Marina bežít v gorode.                      c. Marina sprjatalas' pod stolom.  
           Marina runs in city.LOC                   Marina hid                    under table.INS  
           Marina is running in the city.           Marina hid somewhere under the table.
- b. Marina bežít v gorod.                      d. Marina sprjatalas' pod stol.  
           Marina runs in city.ACC                   Marina hid                    under table.ACC  
           Marina is running to the city.           Marina hid under the table.

Proposal: the combination  $p^0 + \text{Place}^0$  assigns different cases in function of different Places

The case will be different (accusative) in case of the combination  $\text{Path}^0 + \text{Place}^0$

Reconciliation with the decomposition in Kracht 2002 and Radkevich 2010: directional PPs do not comprise the totality of locative tree (because directionals do not need to include the pP, a different mode of composition is expected)

Possible mechanism for case combination: syntactic case-stacking (Béjar and Massam 1999, Merchant 2006, Caha 2007, Richards 2007, Matushansky 2008, 2010, 2012, Brattico 2011, Pesetsky 2013, etc.)

## 6. CONCLUSION AND FURTHER QUESTIONS

A set of cross-linguistic generalizations about restrictions on preposition-less locative case argues for adopting locus denotations for some terminals in some languages

As our ontology at any rate requires loci, it is unsurprising that there should be terminals that denote loci

Loci naturally have entity-correlates:

- (23)  $\text{EIGEN}^+$ : maps a locus to the unique entity located at this locus  
 $\lambda l . \iota x . \text{EIGEN}(x) = l$

Points of variation:

- whether a language has locus-denoting nouns at all
- whether each given locative case (form) indicates the presence of more structure (when corresponding to a hidden preposition) or less (when corresponding to the default case-marking on lexical loci)
- whether coercion to entities is available

(Potential) extensions:

- Matushansky 2016: French locative prepositions (the famous *en/au* alternation, cf. Cornulier 1972, Zwicky 1987, Miller, Pullum and Zwicky 1997) as locative case
- attested locative case syncretisms (Radkevich 2010): only directional/locative and ablative/locative (in Nivkh and Veps)
- the effect of modification (restrictive vs. non-restrictive)
- unmarked definite locatives (Rapa Nui (Kieviet 2017), Modern Greek (Ioannidou and Dikken 2009, Terzi 2010, Gehrke and Lekakou 2012), Western Armenian)
- weak definites (*to school, to the hospital*, cf. Carlson and Sussman 2005, Aguilar Guevara and Zwarts 2010, 2013, Aguilar Guevara 2014, etc.)
- Russian close apposition with toponyms (Matushansky 2013, in progress)
- temporal bare nominals (e.g., *Monday, next week*; cf. also Bresnan and Grimshaw 1978, McCawley 1988)
- connection between  $p^0$  and  $\text{Pred}^0$

The issue of multiple case-assignment and multiple case-marking: **which case wins?**

- unresolved (everything wins): Merchant 2006, Richards 2007
- outermost: Béjar and Massam 1999, Caha 2007, Pesetsky 2013
- morphological resolution: Brattico 2011, Matushansky 2008, 2010, 2012

**Decompositional (Jakobsonian) approach to case + the reflexive nature of case features**

## 7. BIBLIOGRAPHY

- Aguilar Guevara, Ana. 2014. Weak Definites: Semantics, Lexicon and Pragmatics, Doctoral dissertation, Utrecht University. Utrecht: LOT.
- Aguilar Guevara, Ana and Joost Zwarts. 2010. Weak definites and reference to kinds. In *Proceedings of Semantics and Linguistic Theory (SALT) 20*, ed. by Nan Li and David Lutz, pp. 179-196.
- Aguilar Guevara, Ana and Joost Zwarts. 2013. Weak definites refer to kinds. *Recherches linguistiques de Vincennes* 42, pp. 33-60.
- Arnold, Bill T. and John H. Choi. 2003. *A Guide to Biblical Hebrew Syntax*: Cambridge University Press.
- Austin, Peter K. 2013. *A Grammar on Diyari, South Australia*. London: SOAS, University of London.
- Barrie, Michael and Isaiah Won Ho Yoo. 2017. Bare nominal adjuncts. *Linguistic Inquiry* 48, pp. 499-512.
- Bateman, John A., Joana Hois, Robert Ross, and Thora Tenbrink. 2010. A linguistic ontology of space for natural language processing. *Artificial Intelligence* 174, pp. 1027-1071.
- Béjar, Susana and Diane Massam. 1999. Multiple case checking. *Syntax* 2, pp. 65-79.
- Bierwisch, Manfred. 1988. On the grammar of local prepositions. In *Syntax, Semantik und Lexikon*, ed. by Manfred Bierwisch, Wolfgang Motsch, and Ilse Zimmermann. *Studia Grammatica* XXIX, pp. 1-65. Berlin: Akademie.
- Borg, Albert. 1987-1988. To be or not to be a copula in Maltese. *Journal of Maltese Studies* 17-18, pp. 54-71.
- Brattico, Pauli. 2011. Case assignment, case concord, and the quantificational case construction. *Lingua* 121, pp. 1042-1066.
- Bresnan, Joan and Jane Grimshaw. 1978. The syntax of free relatives in English. *Linguistic Inquiry* 9, pp. 331-391.
- Broekhuis, Hans. 2013. *Syntax of Dutch: Adpositions and Adpositional Phrases*. Amsterdam: Amsterdam University Press.
- Caha, Pavel. 2007. Case Movement in PPs. *Nordlyd: Tromsø Working Papers on Language & Linguistics* 34.2. *Special Issue on Space, Motion, and Result*, ed. by Monika Bašić, Marina Pantcheva, Minjeong Son, and Peter Svenonius, pp. 239-299.
- Caha, Pavel. 2010. The German locative-directional alternation. *The Journal of Comparative Germanic Linguistics* 13, pp. 179-223.
- Calabrese, Andrea. 2008. On absolute and contextual syncretism. Remarks on the structure of paradigms and on how to derive it. In *The Bases of Inflectional Identity*, ed. by Andrew Nevins and Asaf Bachrach, pp. 156-205. Oxford: Oxford University Press.
- Carlson, Greg N. and Rachel Sussman. 2005. Seemingly indefinite definites. In *Linguistic Evidence: Empirical, Theoretical, and Computational Perspectives*, ed. by Stephan Kepser and Marga Reis, pp. 26-30. Berlin: Mouton de Gruyter.
- Collins, Chris. 2008. Home sweet home. *NYU Working Papers in Linguistics* 1. *Papers in Syntax*, ed. by Lisa Levinson and Oana Savescu-Ciucivara, pp. 1-34.
- Cornulier, Benoit de. 1972. A peeking rule in French. *Linguistic Inquiry* 3, pp. 226-227.
- Creary, Lewis G., Jean Mark Gawron, and John Nerbonne. 1989. Towards a theory of locative reference. In *Proceedings of the 27th Annual Meeting of the Association for Computational Linguistics*, pp. 42-50: Association for Computational Linguistics.
- Creissels, Denis. 2009. Spatial cases. In *The Oxford Handbook of Case*, ed. by Andrej Malchukov and Andrew Spencer, pp. 609-625. Oxford: Oxford University Press.
- Daniel, Michael and Dmitry Ganenkov. 2009. Case marking in Daghestanian: limits of elaboration. In *The Oxford Handbook of Case*, ed. by Andrej Malchukov and Andrew Spencer, pp. 668-685. Oxford: Oxford University Press.
- den Dikken, Marcel. 2003. On the syntax of locative and directional adpositional phrases. Ms., CUNY.



- den Dikken, Marcel. 2010. On the functional structure of locative and directional PPs. In *The Cartography of Syntactic Structure*, vol. 6, ed. by Guglielmo Cinque and Luigi Rizzi, pp. 74-126. New York: Oxford University Press.
- Donaldson, John William. 1860. *A Complete Latin Grammar for the Use of Students*. Cambridge: Deighton, Bell, & Co.
- Emonds, Joseph. 1987. Parts of speech in Generative Grammar. *Linguistic Analysis* 17, pp. 3-42.
- Foley, William A. 1991. *The Yimas Language of Papua New Guinea*. Stanford, California: Stanford University Press.
- Gehrke, Berit and Marika Lekakou. 2012. How to miss your P. Paper presented at *33rd Annual Meeting of the Department of Linguistics*, Thessaloniki, April 26-27, 2012.
- Gildersleeve, Basil L. and Gonzalez B. Lodge. 1876. *Latin grammar*. London: Macmillan Education Ltd.
- Green, Rebecca. 1995. A Grammar of Gurr-goni (North Central Arnhem Land), Doctoral dissertation, Australian National University.
- Guekguezian, Peter Ara. 2011. Bare locatives in Western Armenian. Ms., USC.
- Hofling, Charles Andrew. 2000. *Itzaj Maya Grammar*. Salt Lake City: University of Utah Press.
- Hoftijzer, J. 1981. *A Search for Method: a Study in the Syntactic Use of the H-Locale in Classical Hebrew*. Studies in Semitic Languages and Linguistics 12. With the collaboration of H.R. van der Laan and N.P. de Koo. Leiden: Brill.
- Ioannidou, Alexandra and Marcel den Dikken. 2009. P-drop, D-drop, D-spread. In *Proceedings of the 2007 Workshop in Greek Syntax and Semantics*, ed. by Claire Halpert, Jeremy Hartman, and David Hill, pp. 393-408. Cambridge, Massachusetts: MIT Press.
- Jackendoff, Ray. 1983. *Semantics and Cognition*. Cambridge, Mass: MIT Press.
- Katz, Jerrold J. and Paul M. Postal. 1964. *An Integrated Theory of Linguistic Descriptions*. Cambridge, Massachusetts: MIT Press.
- Kayne, Richard S. 2005. Here and there. In *Movement and Silence: Here and there*. Ed. by Kayne, Richard S., pp. 65-84. Oxford: Oxford University Press.
- Kieviet, Paulus. 2017. *A Grammar of Rapa Nui*. Studies in Diversity Linguistics 12. Berlin: Language Science Press.
- Koopman, Hilda. 2000. Prepositions, postpositions, circumpositions, and particles. In *The Syntax of Specifiers and Heads*, ed. by Hilda Koopman, pp. 204-260. London: Routledge.
- Kracht, Marcus. 2002. On the semantics of locatives. *Linguistics and Philosophy* 25, pp. 157-232.
- Kratzer, Angelika. 1996. Severing the external argument from its verb. In *Phrase Structure and the Lexicon*, ed. by Johan Rooryck and Laurie Zaring, pp. 109-137. Dordrecht: Kluwer.
- Larson, Richard K. 1985. Bare-NP adverbs. *Linguistic Inquiry* 16, pp. 595-621.
- Larson, Richard K. 1987. "Missing prepositions" and the analysis of English free relative clauses. *Linguistic Inquiry* 18, pp. 239-266.
- Lestrade, Sander. 2006. Adpositional case, MA thesis: Radboud University Nijmegen.
- Lestrade, Sander. 2010. Finnish case alternating adpositions: a corpus study. *Linguistics* 48, pp. 603-628.
- Matushansky, Ora. 2008. A case study of predication. In *Studies in Formal Slavic Linguistics. Contributions from Formal Description of Slavic Languages 6.5*, ed. by Franc Marušič and Rok Žaucer, pp. 213-239. Frankfurt am Main: Peter Lang.
- Matushansky, Ora. 2010. Russian predicate case, *encore*. In *Proceedings of FDSL 7.5*, ed. by Gerhild Zybatow, Philip Dudchuk, Serge Minor, and Ekaterina Pshehotskaya, pp. 117-135. Frankfurt: Peter Lang.
- Matushansky, Ora. 2012. On the internal structure of case in Finno-Ugric small clauses. *Finno-Ugric Languages and Linguistics* 1, pp. 3-43.
- Matushansky, Ora. 2013. Sorts of proper names. Paper presented at *Semantics and Philosophy in Europe 6*, St. Petersburg, June 10-14, 2013.
- Matushansky, Ora. 2016. The definite article in proper places. Paper presented at *Workshop on the semantic contribution of Det and Num. (In)definiteness, genericity and referentiality*, UAB, May 27-28, 2016.
- Matushansky, Ora and Joost Zwarts. 2017. Making space for measures. In *NELS 47: Proceedings of the Forty-Seventh Annual Meeting of the North East Linguistic Society*, vol. 2, ed. by Andrew Lamont and Katerina Tetzlo, pp. 261-274. Amherst, Massachusetts: GLSA (Graduate Linguistics Student Association).
- McCawley, James D. 1988. Adverbial NPs: Bare or clad in see-through garb? *Language* 64, pp. 583-590.



- Medill, Kathryn McConaughy. 2013. Directional strategies in Biblical Hebrew: influences on the use of locative *hey*. Ms., Indiana University.
- Mel'čuk, Igor. 1994. *Cours de morphologie générale (théorique et descriptive)*, vol. 2: Significations morphologiques. Montréal: Presses Universitaires de Montréal.
- Merchant, Jason. 2006. Polyvalent case, geometric hierarchies, and split ergativity. In *Proceedings of the 42nd annual meeting of the Chicago Linguistics Society*, ed. by Jackie Bunting, Sapna Desai, Robert Peachey, Chris Straughn, and Zuzana Tomkova. Chicago, Illinois: Chicago Linguistics Society.
- Miller, Philip H., Geoffrey K. Pullum, and Arnold M. Zwicky. 1997. The principle of phonology-free syntax: four apparent counterexamples in French. *Journal of Linguistics* 33, pp. 67-90.
- Pesetsky, David. 2013. *Russian Case Morphology and the Syntactic Categories*. Cambridge, Massachusetts: MIT Press.
- Radkevich, Nina. 2010. On Location: The Structure of Case and Adpositions, Doctoral dissertation, University of Connecticut.
- Richards, Norvin. 2007. Lardil "case stacking" and the structural/inherent case distinction. Ms., MIT. Available at <http://ling.auf.net/lingBuzz/000405>.
- de Rijk, Rudolf P.G. 2007. *Standard Basque: A Progressive Grammar*. Cambridge, Massachusetts: MIT Press.
- Rounds, Carol. 2001. *Hungarian. An Essential Grammar*. London: Routledge.
- Svenonius, Peter. 2003. Limits on P: *Filling in holes* vs. *falling in holes*. In *Proceedings of the 19th Scandinavian Conference of Linguistics*, ed. by Anne Dahl, Kristine Bentzen, and Peter Svenonius. *Nordlyd* 31.2, pp. 431-445. Tromsø: University of Tromsø.
- Terzi, Arhonto. 2010. On null spatial Ps and their arguments. *Catalan Journal of Linguistics* 9 pp. 167-187.
- Tungseth, Mai. 2003. Two structural positions for locative and directional PPs in Norwegian motion constructions. In *Proceedings of the 19th Scandinavian Conference of Linguistics*, ed. by Anne Dahl, Kristine Bentzen, and Peter Svenonius. *Nordlyd* 31.2, pp. 473-487. Tromsø: University of Tromsø.
- Waltke, Bruce K. and Michael Patrick O'Connor. 1990. *An Introduction to Biblical Hebrew Syntax*. Winona Lake, Indiana: Eisenbrauns.
- Woodcock, Eric Charles. 1959. *A New Latin syntax* 267 p. Cambridge: Harvard University Press.
- Wunderlich, Dieter. 1991. How do prepositional phrases fit into compositional syntax and semantics? *Linguistics* 29, pp. 591-622.
- Zewi, Tamar. 2013. Directive *he*. In *Encyclopedia of Hebrew Language and Linguistics*, ed. by Geoffrey Khan. Leiden: Brill.
- Zwarts, Joost. 2005. The case of prepositions: Government and compositionality in German PPs. Paper presented at *Israel Association for Theoretical Linguistics 21*, The Technion, Haifa, June 22-23, 2005.
- Zwarts, Joost. 2006. Case marking direction: The accusative in German PPs. Paper presented at *CLS 42*, Chicago, April 6-8, 2006.
- Zwarts, Joost and Yoad Winter. 2000. Vector space semantics: a model-theoretic analysis of locative prepositions. *Journal of Logic, Language and Information* 9, pp. 169-211.
- Zwicky, Arnold M. 1987. French prepositions: no peeking. *Phonology Yearbook* 4, pp. 211-227.