Sorting things right out:
An analysis of English particle verbs without object movement

Steven Foley[1], Vera Lee-Schoenfeld[1], and Jill McLendon[2]
[1]University of Georgia; [2]Goethe-Universität Frankfurt

LSA Annual Meeting – January 9, 2026

1. Goals

1.1 To account for word order possibilities of Particle Verb (PrtV) constructions without operations that are otherwise difficult to motivate for English, in particular, Object (Obj) movement

Basic word order alternation:
(1) a. She <u>put</u> <u>on</u> her shoes.　　(continuous order)
　　b. She <u>put</u> her shoes <u>on</u>.　　(discontinuous order)

(2) a. He <u>pulled</u> <u>off</u> the bandaid.　　(continuous order)
　　b. He <u>pulled</u> the bandaid <u>off</u>.　　(discontinuous order)

1.2 To draw attention to degree modification of Prt as an analytical diagnostic, specifically how word order restrictions (see (3-4)) and the semantics of the modification in cases of multiple modifiers (see (5)) might follow from the phrase-structural representation of the modifier

Word order restrictions:
(3) a. She <u>put</u> her shoes **right** <u>on</u>.
　　b. *She <u>put</u> **right** <u>on</u> her shoes.

(4) a. He <u>pulled</u> the bandaid **right** <u>off</u>.
　　b. *He <u>pulled</u> **right** <u>off</u> the bandaid.

⇒ Only the discontinuous order allows Prt modification

Multiple modifiers:
(5) a. She <u>put</u> her shoes **almost halfway** <u>on</u>.
　　b. He <u>pulled</u> the bandaid **pretty much right** <u>off</u>.

⇒ There can be more than one modifier, but they don't all modify Prt directly

Order of modifiers:
(6) c. He <u>pulled</u> the bandaid **right back on** <u>off</u>.
　　d. ?He <u>pulled</u> the bandaid **right on back** <u>off</u>.
　　e. *He <u>pulled</u> the bandaid **back right on** <u>off</u>.
　　f. *He <u>pulled</u> the bandaid **back on right** <u>off</u>.
　　g. *He <u>pulled</u> the bandaid **on right back** <u>off</u>.
　　h. *He <u>pulled</u> the bandaid **on back right** <u>off</u>.

⇒ The order of modifiers is not random: *right < back < on <* Prt
⇒ Semantically, *right* modifies *back*; *right back* modifies *on*; and *right back on* modifies Prt　(Note: *back* and *on* are special in that they can function as Prt as well)

1.3 To appeal to idiomaticity (or lack thereof) to motivate syntactic differences

(7) a. ??He pulled the heist right off.
     b. He pulled the bandaid right off.

(8) a. ??By failing the test, I let my parents right down.
     b. After our hot air balloon ride, I let my parents right down.

⇒ Idiomatic V-Prt combos resist Prt modification, at least when uttered out of the blue

2. Major previous approaches

We focus on two major types of analyses. For a thorough overview, see Larsen 2014.

2.1 Obj is argument of V+Prt (Johnson 1991, Basilico 2008)

- Johnson 1991: V+Prt head-adjunction and Obj shift
  - Obj moves to Spec-µP (argued for on independent grounds, see below)
  - Continuous order: V+Prt head-moves to v, above Obj
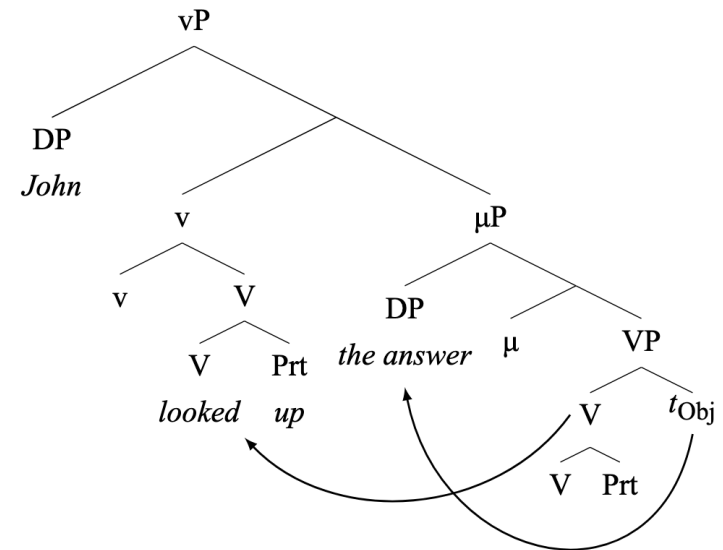 - Discontinous order: V excorporates, leaving behind Prt below Obj

Figure 1a: Johnson's (1991) analysis of the continuous order. Some labels adapted and steps of head movement omitted.
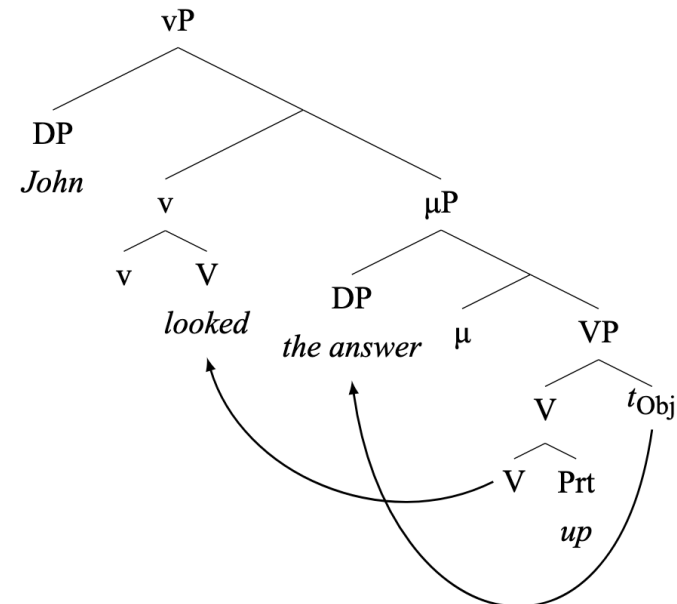

Figure 1b: Johnson's (1991) discontinuous-order analysis

2

- A more recent similar account (Basilico 2008)
  - Verb is decomposed into Root ($\sqrt{}$) and categorizer (V, following Merchant 2019; Basilico's *v*)
  - Prt merges with $\sqrt{}$, and either Prt projects (PrtP) or $\sqrt{}$ does (complex $\sqrt{}$ adjoined to V); that affects where Obj is merged
  - Continuous order: $\sqrt{}$ projects, V merges, Obj is merged in Comp-VP and is licensed in situ
  - Discontinuous order: Prt projects, Obj is merged in Comp-PrtP, V merges; Obj must move to Spec-VP to get case-licensed
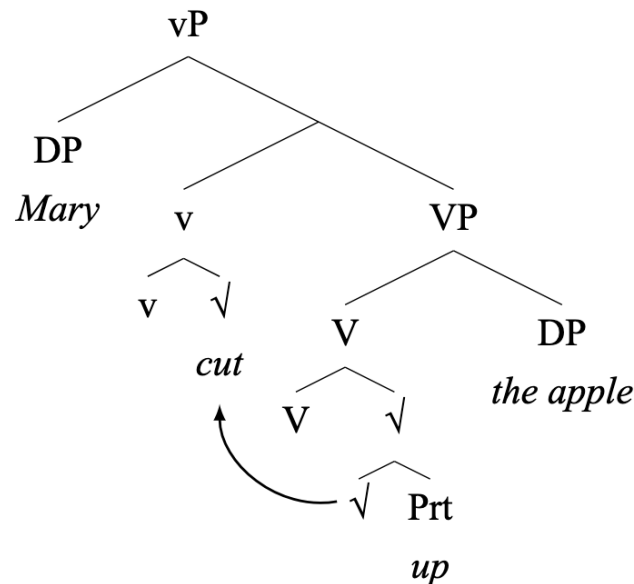 - $\sqrt{}$ always excorporates, stranding Prt

Figure 2b: Basilico's (2008) discontinuous-order analysis, labels adapted
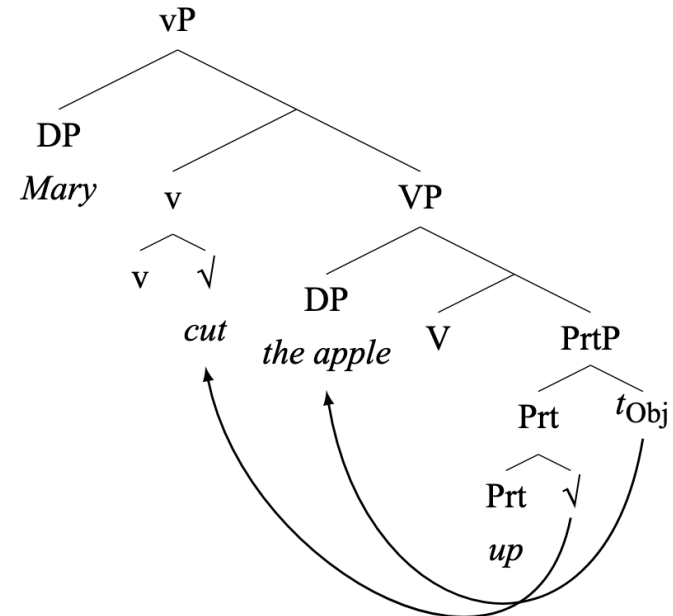

Figure 2a: Basilico's (2008) continuous-order analysis, labels adapted

- What we adopt:
  - V+Prt head-adjunction and optional V-excorporation (from Johnson)
  - A level of representation where Obj is higher than Comp-VP (from Johnson and Basilico)
  - V+Root decomposition (from Basilico)
  - Possibility of PrtP (from Basilico)
- What we do differently:
  - Obj doesn't shift but *originates* high
    - Obj isn't argument of $\sqrt{}$, but rather V – following work in syntax (Merchant 2019) and event semantics (Parson 1990, Lohndal 2012)

3

- Manner adverbs and case are not independent motivation for Obj mvmt:
  - How and where Adv-adjunction takes place is debatable; there are other ways to explain *Mikey visited quietly his parents*
  - Obj can be case-licensed at a distance by Agree (Chomsky 2000, 2001)
- We focus on Prt modification facts
  - Johnson analyzes Prt modifiers as head-adjoined, without considering phrasal modifiers
  - Basilico accounts for ordering restriction on PrtV constructions with modified Prt and argues for Prt projection (*p*P = our PrtP) with a modifier in Spec-PrtP but doesn't consider modifiers that are themselves modified

2.2 Obj is argument of Prt: Small clause analyses (Harley & Noyer 1998, Harley 2008; see also Kayne 1985, Svenonius 1994, den Dikken 1995)
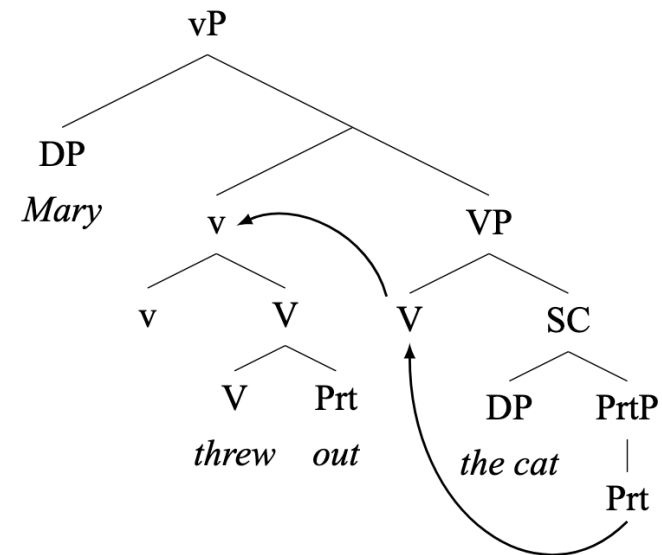

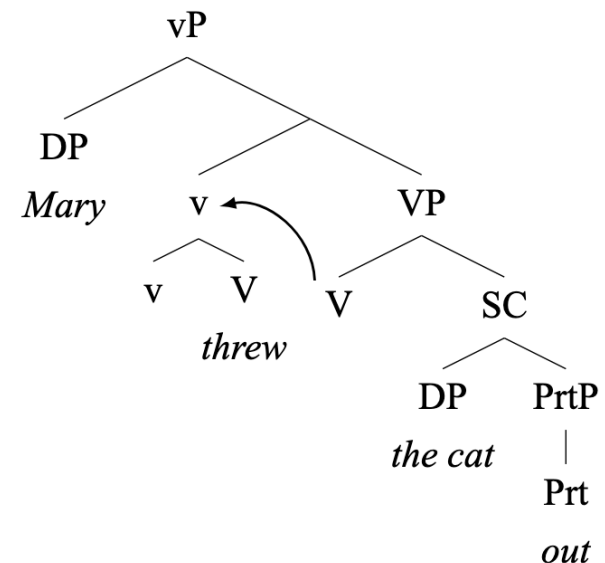Figure 3a: Harley's (2008) continuous-order analysis, labels adapted

Figure 3b: Harley's (2008) discontinuous-order analysis

- Prt is predicate of small clause (SC); **Obj is argument of Prt**
  - o Basic word order alternation is derived by optional head movement of Prt
  - o Assimilates PrtV constructions to resultative secondary predicates
  - o No consensus on the internal syntax of SC or the position Obj
    - ▪ Obj might be in Comp-PrtP (Harley & Noyer 1998), necessitating otherwise unmotivated Obj movement (cf. Ramchand 2008)
    - ▪ Obj might undergo rightward mvmt akin to heavy NP shift (Kayne 1985)
    - ▪ More elaborate decompositions are possible too (e.g. Ramchand & Svenonius 2002, Ramchand 2008)
    - ▪ Or a mixed approach: Obj is SC argument given PrtP, but Obj is in Comp-VP when Prt is just a head (Larsen 2014)
- What we adopt:
  - o Possibility of PrtP (in addition to Prt as head-adjoined to V)
- What we do differently:
  - o Obj is an argument of V, not Prt/SC – maintaining UTAH (Baker 1988, et seq)

2.3 Interim summary
- For Johnson 1991, Prt is always adjoined to V, but that can't account for modification
- For Basilico 2008 as well as the Small Clause approach, Obj doesn't have a consistent position across simple transitives and PrtV constructions, which flies in the face of UTAH (Baker 1988)
- Few approaches seriously consider particle modification possibilities (Larsen 2014 being the most thorough), and none investigate the effect of particle modification on V+Prt idiomaticity

3. Our proposal

We adopt Johnson's (1991) V+Prt head adjunction and head-mvmt with optional V-excorporation approach, but we don't need Obj mvmt.

Like Basilico (2008) and Larsen (2014), we focus on Prt modification facts, which show that Prt can be phrasal and thus isn't always head-adjoined to V.

This leads to two different base configurations.

- <u>Base configuration I</u>: Prt is head-adjoined not to V but to the verbal Root
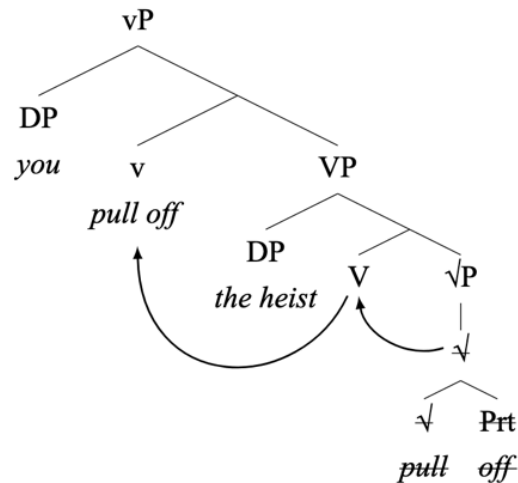 - ○ Head movement options result in the two possible orders
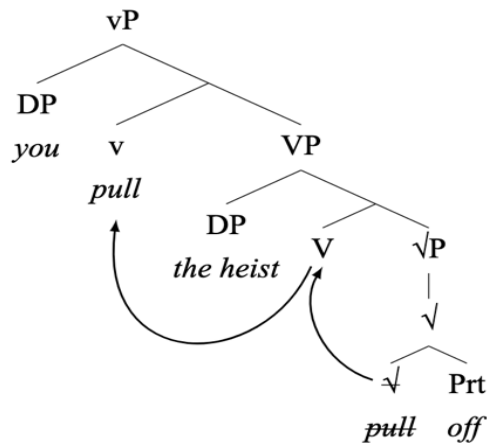

Figure 4: Adjoined and head–moved Prt → cont. order

Figure 5: Adjoined and stranded Prt → discont. order

- ○ Key difference is whether or not the Prt head-moves with verbal Root
- ○ Holds regardless of idiomaticity
  - ▪ *We pulled the heist off.*
  - ▪ *We pulled off the heist.*

- <u>Base configuration II</u>: PrtP as complement to verbal Root
  - ○ Prt can't move with V because whole phrases can't be involved in head-adjunction
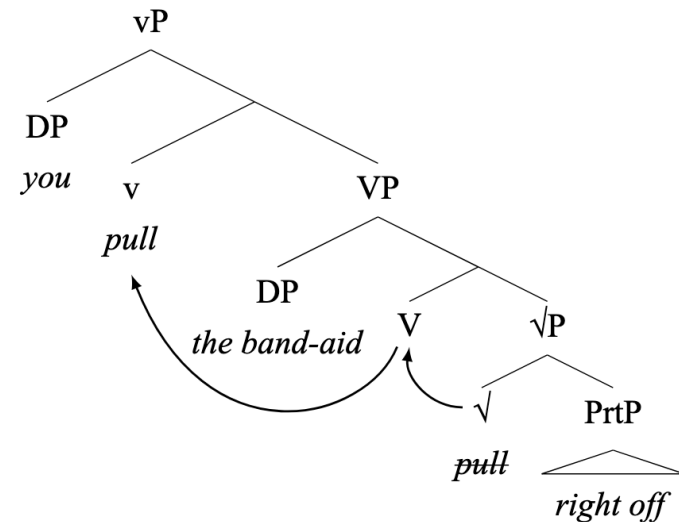

Figure 6: Projecting Prt with modifier → discont. order

- ○ Prt is phrasal only when it has a degree modifier (DegP), otherwise it's just a head adjoined to the verbal Root (see Figures 4-5)

- PrtP with DegP in Spec-PrtP analysis is supported by idiomaticity facts/tendencies:

(9) a.   #We pulled the heist right off.
     b.   #I let my parents right down.

- o   This follows if structures including roots are interpreted phase-by-phase (Arad 2003), and if PrtP is a phase; PrtP meaning can't be influenced by root
- o   Parallel: phasal theta-complete PPs (Baltin 1982, Hestvik 1991, Lee-Schoenfeld 2007)

- DegP inside PrtP (e.g., *right off*), patterns just like IntP inside AP (e.g., *too proud*) and possessor-DP inside DP (e.g., *the neighbor's dog*): they can each have another (phrasal) modifier as their specifier:
  - o   [PrtP [DegP [DegP *pretty much*] *right*] *off*]
  - o   [AP [IntP [IntP *all*] *too*] *proud*]
  - o   [DP [DP [DP *Mr. Smith*]*'s neighbor*]*'s dog*]


```
                PrtP
              /      \
          DegP        Prt
         /    \        off
     DegP      Deg
    /          right
pretty much
```
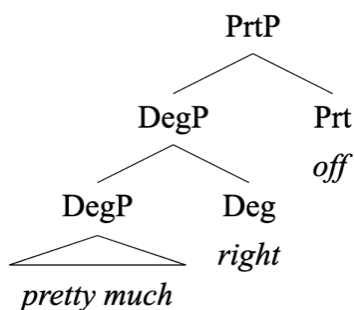
Figure 7: Recursive DegP-modification of Prt

- Compare recursive head-adjunction (Larsen 2014:311), which doesn't accurately reflect compositionality of modification
  - o   [Prt *right* [Prt *back* [Prt *on* [Prt *up*]]]]

4. Rebutting an argument for object movement

Kayne (1985) and Basilico (2008) note acceptability contrasts in subextraction from PrtV Objs.

- For Basilico 2008, these contrasts follow if there's Obj mvmt in the discontinuous order (Figure 2), and if that renders Obj an island (like Subj; see McCloskey 1993)

(10) a.   *Which aliens did the government cover [every encounter with _] up?
     b.   Which aliens did the government cover up [every encounter with _]?

(11) a.   *This is the subject you threw [all your books about _] out.
     b.   This is the subject you threw out [all your books about _].

- However, pied piping makes the (a)-examples better:

(12) a.   With which aliens did the government cover [every encounter _] up?
     b.   With which aliens did the government cover up [every encounter _]?

(13) a. This is the subject about which you threw [all your books _] out.

b. This is the subject about which you threw out [all your books _].

- Given this contrast, we suggest:
  - Subextraction from Objs of discontinuous PrtVs (10a) is degraded because:
    - In general, prosodically heavy Objs (e.g., PP-containing DPs) aren't good in discontinuous order, and subextraction is only possible from such Objs
    - And perhaps the P-gap-Prt sequence is more prone to processing errors, something like double center embedding (cf. Lewis & Vasishth 2005)
  - Pied piping improves subextraction because:
    - PP-mvmt makes Obj lighter, and yields a N-gap-Prt sequence

5. Left for future work

Ditransitives:
(14) a. We fried the kids up some chicken.

b. *We fried the kids some chicken up.

c. *We fried up the kids some chicken.

- How to control where Prt must be stranded? – It can't be left in situ or move all the way up; must be moving along with V until after Ind. Obj.

With modification:
(15) a. *We fried the kids right up some chicken.

b. *We fried the kids some chicken right up.

c. *We fried the kids some chicken right up.

- If both Objs originate high (neither as sister to Root), how to prevent Prt modification, i.e., PrtP as complement of Root, just in case the verb takes two DP internal arguments?

6. Conclusion

With the goal of sorting things right out, we have arrived at an account that:
- is simpler than previous approaches in that Obj is always generated in the same position and doesn't have to move
- comes with a new restriction on Prt modification – only non-idiomatic V-Prt combinations (involving PrtP) readily allow it

Broader implications and theoretical connections
- Syntax–semantics interface
  - Our connection between Prt phrasality/phasehood and (non)idiomaticity relates to the theories of root allosemy (a review: Carston 2024), which seek to constrain possible interpretations of syntactic structure
  - How does this fit into a broader debate about the structure of idioms (Larson 2017, Bruening 2020)?

- Subextraction and sentence processing
  - Discontinuous PrtV constructions seem to cause processing difficulty due to a nonlocal lexical relationship (Capelle et al. 2010, Czypionka et al. 2018, a.o.)
  - There are complex semantic restrictions on subextraction from objects (Davies & Dubinsky 2003)
  - Thus PrtV Obj subextraction ((9)-(12)) offers a unique way to study how lexical and syntactic dependencies are processed simultaneously
- Comparative Germanic syntax
  - PrtV constructions with different syntactic properties are found across Germanic (Larsen 2014, Dehé 2015, a.o.), and in unrelated languages (e.g. Hungarian: Kiss 2006)
  - To what extent can our analysis be extended beyond English?

References

Arad, Maya. 2003 Locality constraints on the interpretation of Roots: The case of Hebrew denominal verbs. *Natural Language and Linguistic Theory*, 21(4): 737–778.

Baker, Mark C. 1988. *Incorporation: A theory of grammatical function changing*. University of Chicago Press.

Baltin, Mark. 1982. A landing site theory of movement rules. *Linguistic Inquiry* 13(1): 1–38.

Bruening, Benjamin. 2020. Idioms, collocations, and structure: Syntactic constraints on conventionalized expressions. *Natural Language and Linguistic Theory*, 38: 365–424.

Cappelle, Bert, Yury Shtyrov, and Friedemann Pulvermüller. 2010. *Heating up* or *cooling up* the brain? MEG evidence that phrasal verbs are lexical units. *Brain & Language*, 115: 189–201.

Carston, Robyn. 2024. Words and roots – polysemy and allosemy – communication and language. *Review of Philosophy and Psychology*, 15: 1055–1087.

Chomsky, Noam. 2000. Minimalist inquiries: The framework. In *Step by step: Essays on minimalist syntax in honor of Howard Lasnik*, ed. Roger Martin, David Michaels, and Juan Uriagereka. 89–156. MIT Press.

Chomsky, Noam. 2001. Derivation by phase. In *Ken Hale: A Life in Language*, ed. Michael Kenstowicz, 1–52. MIT Press.

Czypionka, Anna, Felix Golcher, Joanna Błaszczak, and Carsten Eulitz. 2018. When verbs have bugs: lexical and syntactic processing costs of split particle verbs in sentence comprehension. *Language, Cognition and Neuroscience*, 34(3): 326–350.

Davies, William D. and Stanley Dubinsky. 2003. On extraction from NPs. *Natural Language and Linguistic Theory*, 21: 1–37.

Dehé, Nicole. 2015. Particle verbs in Germanic. In *Word Formation: An international handbook of the languages of Europe*, eds. Peter Müller, Susan Olsen, and Franz Reiner. 611–626. Berlin: De Gruyter Mouton.

den Dikken, Marcel. 1995. *Particles: On the syntax of verb–particle, triadic, and causative constructions*. Oxford University Press.

Harley, Heidi. 2008. The bipartite structure of verbs cross-linguistically, or: Why Mary can't exhibit John her paintings. In *Conferências do V Congresso Internacional da Associação Brasileira de Lingüística*, eds. Thaïs Cristófaro Silva and Heliana Mello. 45–84. ABRALIN and FALE/UFMG.

Harley, Heidi and Rolf Noyer. 1998. Mixed nominalizations, object shift and short verb movement in English. In *Proceedings of NELS 28*, eds. Kiyomi Kusumoto and Pius Tamanji. 143–157. University of Massachusetts at Amherst: GLSA.

Hestvik, Arild. 1991. Subjectless binding domains. *Natural Language and Lingusitic Theory*, 9: 455–496.

Johnson, Kyle. 1991. Object positions. *Natural Language and Linguistic Theory*, 9: 577–636.

Kayne, Richard. 1985. Principles of particle constructions. In *Grammatical Representation*, eds. Jacqueline Guéron, Hans-Georg Obenauer, & Jean-Yves Pollock. 101–140. Foris.

Kiss, É. Katalin. 2006. The function and the syntax of the verbal particle. In *Event Structure and the Left Periphery*, ed. É. Kiss Katalin. 17–56. Dordrecht: Springer.

Larsen, Darrell. 2014. Particles and particle-verb constructions in English and other German languages. Ph.D. thesis, University of Delaware.

Larson, Richard K. 2017. On "dative idioms" in English. *Linguistic Inquiry*, 48: 389–426.

Lee-Schoenfeld, Vera. 2007. *Beyond Coherence: The syntax of opacity in German*. John Benjamins Publishing Company.

Lewis, Richard L. and Shravan Vasishth. 2005. An activation-based model of sentence processing as skilled memory retrieval. *Cognitive Science*, 29: 375–419.

Lohndal, Terje. 2012. Toward the end of arguments structure. In *The End of Argument Structure?*, eds. María Cristina Cuervo and Yves Roberge. 155–184. Emerald.

McCloskey, James. 1993. Constraints on syntactic processes. In *SYNTAX: Ein internationales Handbuch zeitgenössischer Forschung*, eds. Joachim Joacobs, Arnim von Stechow, Wolfgang Sternefeld, and Theo Venneman. Walter de Gruyter. 496–506.

Merchant, Jason. 2019. Roots don't select, categorial heads do: Lexical-selection of PPs may vary by category. *The Linguistic Review*, 36(3): 325–341.

Miller, George A. and Noam Chomsky. 1963. Finitary models of language users. In *Handbook of Mathematical Psychology*, volume 2, eds. R. D. Luce, R. Bush, and E. Galanter. Wiley. 419–491.

Parsons, Terence. 1990. *Events in the semantics of English*. MIT Press.

Ramchand, Gillian. 2008. *Verb Meaning and the Lexicon: a First Phase Syntax*. Cambridge University Press.

Ramchand, Gillian and Peter Svenonius. 2002. The lexical syntax and lexical semantics of the verb–particle construction. In *WCCFL 21 Proceedings*, eds. Line Mikkelsen and Christopher Potts. 387–400. Cascadilla Press.

Svenonius, Peter. 1994. Dependent nexus: Subordinate predication structures in English and the Scandinavian languages. Ph.D. thesis, University of California at Santa Cruz.

Authors in alphabetical order:

Steven Foley – srfoley@uga.edu

Vera Lee-Schoenfeld – vleesch@uga.edu

Jill McLendon – jillielendon@gmail.com