

Variation and Change in the Particle Verb Alternation in UK and US Englishes

Daniel Ezra Johnson¹, Bill Haddican², Joel Wallenberg³

¹Lancaster University, ²Queens College-CUNY, ³Newcastle University

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Cross-speaker differences in English particle placement

- **Focus:** Cross-lectal differences in effects on particle placement in English (Kroch and Small, 1978; Hughes et al., 2005; Szmrecsanyi, 2005; Cappelle, 2009; Haddican and Johnson, 2012).

(1) *Particle verb alternation*

- a. She cut **open** the melon. [VPO order]
- b. She cut the melon **open**. [VOP order]

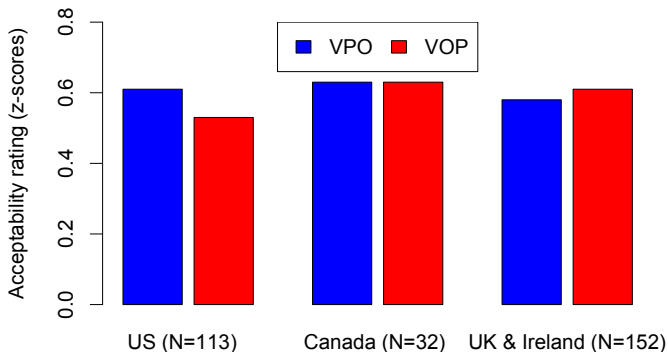
Regional differences in English particle placement

- Reports of regional differences in UK dialects.
- Hughes et al. (2005, 23) report that Scotland favors VPO, while the South of England favors VOP.
- Szmrecsanyi (2005, 133) reports th



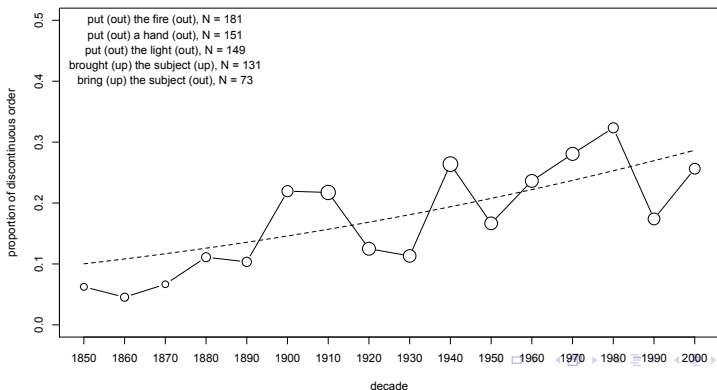
Regional differences in English particle placement

- Haddican and Johnson (2012) report evidence from an acceptability judgment experiment and Twitter corpus results suggesting no regional differences within UK, but instead a transatlantic difference.



Regional differences in English particle placement

- Haddican and Johnson (2012) also note real time evidence of change toward VOP orders in COHA data (Davies, 2009) .
- They speculate that both UK and US Englishes are changing toward VOP, but UK is leading change.



Focus effects on particle placement

- Several sources report that new information objects favor VPO order, given objects favor VOP (Bolinger, 1971; Svenonius, 1996; Kayne, 1998; Dehé, 2002).

- (2) Q: Who will you pick up?
A: I'll pick (?the girls) up (the girls). (Svenonius, 1996)
- (3) Q: How are Turid and Ingrid going to get here?
A: I'll pick (the girls) up (?the girls). (Svenonius, 1996)

Focus effects on particle placement

- Most developed treatment of these facts by Dehé (2002), who argues that VPO is the “neutral” order, i.e. preferred in wide focus contexts, and also when object itself focused. VOP order only when object defocused.

(4) Q: What did Durban do to the camera?

A: Durban [VP[+Foc] turned [XP[-Foc] the camera] off].
(Dehé, 2002, 132)

- Svenonius (1996), however, notes considerable cross-speaker variation in the effects illustrated in (6) and (7).

Goals of this talk

- *Two main claims:*

- 1 Data from the Brown “family” of corpora support a UK/US difference and suggest that change toward VOP is proceeding more quickly in the UK than US.
- 2 Acceptability judgment data support topic/focus effects on the variation in (6) and (7). Cross-speaker correlation in topic and focus effects suggests a single underlying locus of variation.

The Brown family of corpora

- The Brown corpus (Brown) (Francis and Kucera, 1979)
- The Lancaster-Oslo-Bergen corpus (LOB) (Leech et al., 1986)
- The Freiburg-Brown corpus (Frown) (Mair and Leech, 2007a)
- The Freiburg-LOB corpus (F-LOB) (Mair and Leech, 2007b)
- The BLOB-1931 corpus (B-LOB) (Leech et al., 2013)
- The British English 2006 corpus (BE06) (Baker, 2008)
- The American English 2006 corpus (AmE06) (Potts and Baker, 2011)

The Brown family of corpora

- Span 7 decades.
- Matched for style and genre across 15 text types.

Country	<i>Median sampling year</i>			
	1931	1961	1991	2006
UK	BLOB	LOB	F-LOB	BE06
US	—	Brown	Frown	AmE06

Data and method

- 2557 transitive particle verbs with determiner + one-word noun, e.g. *the boat*, *an umbrella*.
- **Five predictors:** (Kroch and Small, 1978; Gries, 2001; Lohse et al., 2004)
 - 1 *Object definiteness* (definite, indefinite)
 - 2 *Object length* (continuous-in syllables)
 - 3 *Year of text* (continuous)
 - 4 *Country* (UK, US)
 - 5 *Category* (Genre)
- Generalized linear model with random intercepts for particle, verb and verb-particle pair, using lme4 (Bates et al., 2012).

Model

- Table summarizing contribution of fixed effects in a model of the Brown family corpora. N observations = 2557.
- **Model:** Order \sim Country * Date + Definiteness + Category + Object.syllables + (1 | Verb.stem) + (1 | Particle) + (1 | Pair)

	Df	AIC	LRT	Pr(> χ^2)
Definiteness	1	1995.2	3.7973	0.0513
Category	14	1995.0	26.6248	0.0090
Object (syllables)	1	1994.8	3.4633	0.0627
Country:date	1	1996.2	4.8109	0.0283

Brown corpora results

- Predicted values by year and country for Brown family corpora



Brown Summary

- Results support a contemporary UK preference for VOP relative to US. (Haddican and Johnson, 2012). Evidence that UK dialects leading change toward VOP orders.
- Unclear whether change related to cross-dialect differences in Saxon vs. Norman genitives (Hinrichs and Szmrecsanyi, 2007), dative alternation (Bresnan and Hay, 2008; Bresnan and Ford, 2010).
- Changing evaluations of preposition stranding (T. Kroch, p.c.)?

(5) Who did you come with ~~who~~?

An acceptability judgment experiment

- Cross-speaker differences in object topic/focus effects on VPO/VOP (Bolinger, 1971; Svenonius, 1996; Kayne, 1998; Dehé, 2002).

- (6) Q: Who will you pick up?
A: I'll pick (?the girls) up (the girls). (Svenonius, 1996)
- (7) Q: How are Turid and Ingrid going to get here?
A: I'll pick (the girls) up (?the girls). (Svenonius, 1996)

An acceptability judgment experiment

■ *Subjects*

- 125 self described native speakers of English, aged 18-52, ($M=22.8$, $SD=6.6$), 91 women and 34 men.

■ *Materials*

- The experiment crossed two factors: word order (VPO vs. VOP) and focused constituent. We biased focus readings with a preceding *wh*-question focusing four kinds of constituents as in (8)-(11).

An acceptability judgment experiment

(8) *Sentence wide focus*

Q: What happened?

A: Ann cut (the tree) down (the tree).

(9) *VP focus*

Q: What did Ann do?

A: Ann cut (the tree) down (the tree).

(10) *Object focus*

Q: What did Ann cut down?

A: Ann cut (the tree) down (the tree).

(11) *Topic object*

Q: What happened to the tree?

A: Ann cut (the tree) down (the tree).

An acceptability judgment experiment

■ *Procedure*

- 32 question-answer pairs were created for each of these eight conditions.
- Non-idiomatic verbs; all objects two-syllable definites, e.g. *the tree*.
- Lexicalizations were blocked and assigned to lists by Latin square with four items/condition/subject.
- These 32 experimental items pseudo-randomized with 32 fillers, half grammatical/half ungrammatical.
- Self-paced web-based experiment using Ibx Farm (Drummond, 2013).

An acceptability judgment experiment

QUESTION: What happened to the box?

ANSWER: The employees carried out the box.

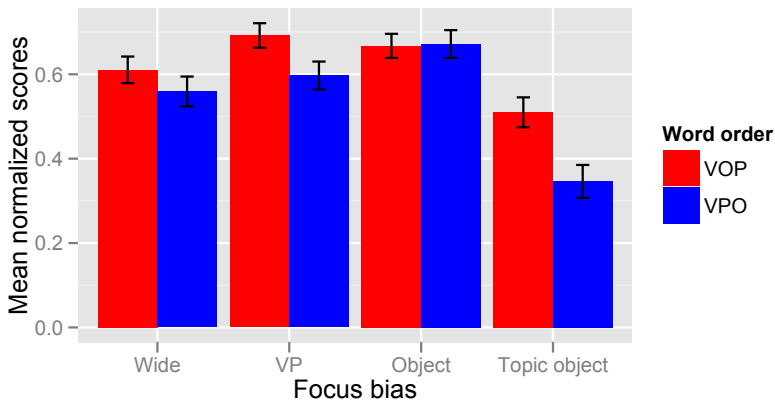
(Bad) 0 1 2 3 4 5 6 7 8 9 10 (Good)

Click a box to judge the above answer as a natural response to the preceding question.

- Data normalized by converting to z-scores taken over the 32 filler sentences.
- 6 separate lmer models—one for each possible pairwise comparison between the four focus conditions in (8)-(11)—with fixed effects for word order and focus bias and random intercepts and slopes by subject and by item.

Results

- Acceptability of VOP and VPO orders by focus bias (Means and 95%CI).



Results

- No support for Dehé's claim that VPO orders are preferred in sentence-wide focus and VP-focus contexts.
 - No preference in wide-focus condition ($p=.19$).
 - Opposite effect for VP-focus condition ($p=.002$).
- Significant order * focus interactions:
 - VP-focus with narrow object focus sentences ($p=.01$), contra Dehé.
 - Wide focus with topic-object sentences ($p=.02$).
 - Narrow object focus with topic-object sentences ($p=.001$).
- All other interaction p 's $>.1$.

Results

- Haddican and Johnson (to appear) proposed that these focus effects reflect PP-internal topic movement.

(12) *Old information object contexts*

cut [_{TopicP} [_{DP} the tree]_[TOPIC] [_{Topic'} Topic [_{PredP} [_{DP} the tree]
down]]]]

(13) *Narrow object focus contexts*

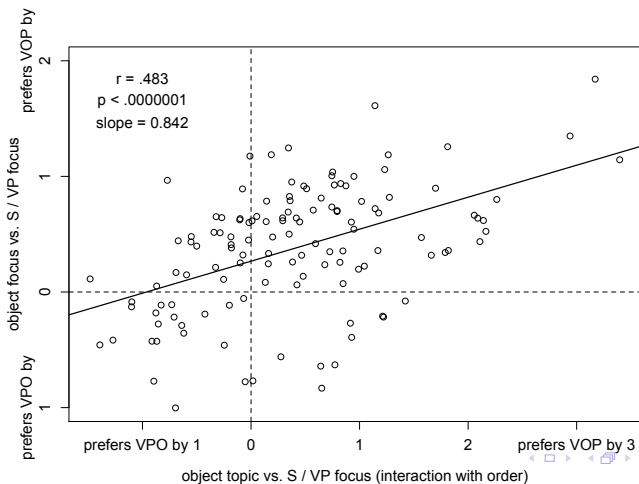
cut [_{TopicP} down]_[TOPIC] [_{Topic'} Topic [_{PredP} the tree down]]]]

Cross-speaker variation

- But something more is needed to explain (i) the subtlety of judgments and (ii) the considerable cross-speaker variation in these judgments.
- We take gradience in intuitions of well-formedness to reflect grammar competition as set forth in the work of Kroch and colleagues (Kroch, 1989, 1994, 2001; Embick, 2008; Yang, 2000, 2004, 2010).
 - **Grammar 1:** A Topic head merged atop the extended projection of P attracting [TOPIC]-bearing constituents, as above.
 - **Grammar 2:** Topic and focus are marked prosodically, with no effect on word order.
- If so, we expect a cross-speaker correlation in topic and focus effects.

Distribution of Grammars 1 & 2 across speakers

- Focus effects and topic effects by speaker.



Summary

■ *Two main claims:*

- 1 Data from the Brown “family” of corpora support a UK/US difference and suggest that change toward VOP is proceeding more quickly in the UK than US.
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