Constraints on Remnants in Pseudogapping: An Experimental Approach

Pseudogapping (PG, see Levin 1986 and Miller 2014 for detailed corpus data), illustrated in (1), is a construction similar to Verb Phrase Ellipsis (VPE) in that it involves ellipsis after an Auxiliary (Aux). However, in VPE, the entire VP complement of the Aux is ellipted, whereas in PG the Aux is followed by a XP, called the 'remnant' (*me* in (1)), which is interpreted as the complement of the ellipted verb (*bother* in (1)).

(1)   "It doesn't ~~bother~~ me," I said. "Well, it <u>does</u> ~~bother~~ me," he growled.

Two central analyses of PG have been available since 1990. One is a transformational analysis, proposed by Jayaseelan 1990 and further developed by Lasnik 1999 and Gengel 2013. Under this analysis ('remnant raising') the remnant is raised out of the VP, feeding VPE:

(2)   "It doesn't bother me," I said. "Well, it does [$_{VP}$ ~~bother t_i~~] me$_i$,"

The other (Miller 1990, Kubota and Levine 2017) is a direct generation approach involving neither movement nor deletion under identity. The Aux is assumed to subcategorize any NP or PP complement and is interpreted anaphorically via an antecedent of type $< e, e, t >$ recovered from the discourse context. In (1), *does* is SUBCAT[—NP] and its meaning (in the case of *do*, the identity function) combines with the anaphorically recovered meaning 'bother'.

Miller 2014 provides extensive corpus data arguing against the remnant raising approach, showing in particular that the putative movement violates island constraints, as in (3-a) where remnant raising would violate the CNPC (Complex Noun Phrase Constraint), (compare with the Relative clause (Rel) variant (3-b)).

(3)   a.   According to current ideas, the frothiness of space <u>retards the arrival of</u> a burst's highest-energy photons more than it <u>does</u> the lowest-energy photons.
       b.   ?*The photons which it retards the arrival of . . .

This paper provides evidence from an acceptability experiment corroborating these corpus findings. It compares the effect on acceptability of CNPC violations in PG and in *wh-* movement (illustrated by Relative clauses). If PG and Rel are both derived by A-bar movement, one would expect them to show similar evidence of island violation on acceptability when their derivations involve CNPC violations. Experimental items involve two factors: (i) PG vs. Rel and (ii) +CNPC vs. –CNPC (presence vs. absence of a CNPC violation). A typical item in its four conditions is presented in (4) (annotations were of course not presented to the subjects):

(4)   a.   [PG,–CNPC] We tried more shirts than we did pants$_i$ [$_{VP}$ ~~try t_i~~]
       b.   [PG,+CNPC] We tried more brands of shirts than we did pants$_i$ [$_{VP}$ ~~try [$_{NP}$ brands of t_i~~]]
       c.   [Rel,–CNPC] I didn't like the items ϕ_i that [we tried t_i]
       d.   [Rel,+CNPC] I didn't like the items ϕ_i that [we tried [$_{NP}$ the most brands of t_i]]

20 items of this type were constructed. The experiment was set up on the Ibex platform. Items were distributed across 4 lists following a Latin Square design, randomly mixed with 44 distractors. 100 participants (hired on MechTurk) judged acceptability (explained in terms of naturalness) on a 7 point scale. 2 self-reported non-native speakers of English were excluded.

As shown, there was no significant difference between (i) PG/–CNPC (col.1); (ii) PG/+CNPC (col.2);

Mean judgment scores with CI for each condition
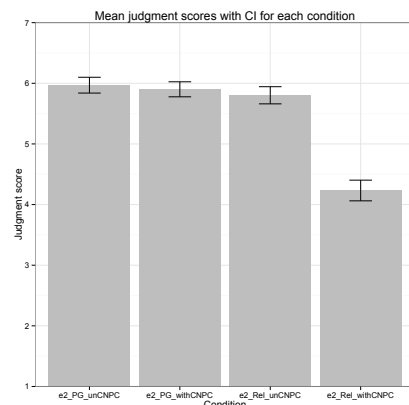
and (iii) Rel/–CNPC (col.3). But, (iv) Relative clauses with CNPC violations (col.4) were judged significantly less acceptable, providing strong evidence against remnant movement.

As is well known, the central problem with the Miller/Levin&Kubota approach is that it overgenerates. First, any $< e, e, t >$ type meaning inferable from the context is assumed to be a possible antecedent. They argue programmatically that discourse pragmatic constraints should account for the status of cases that are grammatical but unacceptable. Our own corpus evidence suggests that in acceptable cases the subject of the Aux is identical and the object denotes a highly salient contrastive referent. We plan to investigate this idea through an experiment with items involving the factor +/− Contrast, as illustrated in (5). Notice that in both conditions the correspondent of the remnant is embedded in the object NP (i.e. a CNPC violation for remnant movement), but the +Contr condition involves two highly salient situationally given contrasting entities with deictic reference. In both conditions, *can* is interpreted as 'can fire the chair of'.

(5) a. You can't fire [$_{NP}$ the chair of [$_{NP}$ that committee]] but you can this one.   +Contr
     b. #You can't fire [$_{NP}$ the chair of [$_{NP}$ the committee]] but you can the board.   –Contr

Remnant raising approaches predict that these should be equally bad, whereas our contrast constraint predicts that the +Contr condition will be better (as is clearly the case intuitively).

The second central case of overgeneration involves the form of the remnant. Whereas the remnant raising analysis naturally predicts connectivity, direct generation does not constrain the form of the remnant. We claim that the problem is similar to that of enforcing the correct form of sluices and propose a variant of Ginzburg's (2012) direct generation analysis for sluicing, on the basis of his notion of 'Focus Establishing Constituent'. We then show how this can be extended to account for the cases of non-connectivity found in corpora by Miller 2014. He claims that non-connectivity is possible if the verb can establish the same thematic relations with different markings. This is illustrated in (6-a) and (6-b) as opposed to (6-c) and (6-d):

(6) a. Kim didn't give Sandy a book but she did me. (give NP$_1$ NP$_2$ = give NP$_2$ to NP$_1$)
     b. Kim didn't give Sandy a book but she did to me.
     c. Kim didn't see Sandy but she did me. (see NP$_1$ $\neq$ see to NP$_1$)
     d. #Kim didn't see Sandy but she did to me.

We plan to run an experiment to evaluate Miller's hypothesis using items that contrast cases of non connectivity with and without identical thematic relations, i.e., items will have two conditions of the types illustrated in (6-b) and (6-d). The remnant raising approach predicts that these should be equally unacceptable (and ungrammatical), whereas the direct generation approach with the discourse condition predicts that the condition illustrated in (6-b) will be more acceptable.

References

Gengel, Kirsten. 2013. *Pseudogapping and Ellipsis*. Oxford: Oxford University Press.

Ginzburg, Jonathan. 2012. *The Interactive Stance*. Oxford: Oxford University Press.

Jayaseelan, K. A. 1990. Incomplete VP deletion and gapping. *Linguistic Analysis* 20:136–155.

Kubota, Yusuke and Robert Levine. 2017. Pseudogapping as pseudo-VP ellipsis. *Linguistic Inquiry* 48.1.

Lasnik, Howard. 1999. Pseudogapping puzzles. In Shalom Lappin and Elabbas Benmamoun, eds., *Fragments: Studies in Ellipsis and Gapping*, 141–174. Oxford: Oxford University Press.

Levin, Nancy. 1986. *Main Verb Ellipsis in Spoken English*. Outstanding Dissertations in Linguistics. New York: Garland.

Miller, Philip. 1990. Pseudogapping and *Do so* substitution. In *Papers from the 26th Regional Meeting of the Chicago Linguistic Society*, 293–305. Chicago, IL.

Miller, Philip. 2014. A corpus study of pseudogapping and its theoretical consequences. In Christopher Piñón, ed., *Empirical Issues in Syntax and Semantics*, Volume 10, 73–90. URL www.cssp.cnrs.fr/eiss10/eiss10.pdf.