Discourse conditions on VPE
ECBAE 2020, July 16 2020

Philip Miller*
Université de Paris

Evidence from corpus surveys and acceptability experiments establish that non-comparative VP Ellipsis (VPE) is more acceptable when the elliptical clause addresses a QUD provided by the antecedent clause and less acceptable when it goes beyond this. E.g., the antecedent in (1) provides the QUD 'who wrote a song?'. The elliptical clause (1-a) addresses this QUD, whereas (1-b) goes beyond it, providing information about the beneficiary via the non contrastive adjunct for her. Continuation (1-b) is intuitively less natural than (1-a). This judgment is corroborated by our experiments.

(1)   Sue didn't write a song.
     a.   Sam did.
     b. #Sam did for her.

The existence of this construction-specific discourse condition raises new questions about the classical syntactic identity constraint on VPE. Specifically, antecedents with category mismatch typically also violate the discourse condition. Nominal antecedents, for instance, not only involve a syntactic mismatch, but also lead to violation of the discourse condition, since they background the antecedent. In (2), not only is the antecedent mismatched, but it is also backgrounded and provides no QUD for VPE to address.

(2)   Jim's discussion of our paper is hard to read. #I'm surprised that Sue didn't [~~discuss our paper~~].

In order to tease apart the respective effects of category mismatch and discourse conditions we used 'polar nouns' as antecedents. These nouns, which we have discussed in previous work, are exceptional in that they can be the head of an NP which can be interpreted in a way very similar to an indirect question, when placed in certain contexts taking indirect interrogatives:

(3)   Mubarak's survival is impossible to predict and, even if he does, his plan to make his son his heir apparent is now in serious jeopardy. (COCA) ($\approx$ Whether or not Mubarak will survive is impossible to predict . . .)

Thus, in appropriate contexts, NPs headed by these nouns do provide a QUD ('will Mubarak survive?' in (3)) which makes them unusually good antecedents for VPE, as we have shown in previous experiments. We set up an acceptability experiment based on two binary factors, (i) category match vs mismatch (CM vs CMM), and (ii) satisfaction of the discourse condition

(QUD+ vs QUD-), depending on whether there is or is not a non contrastive adjunct. We also included a No Ellipsis control condition to ensure that any decrease in acceptability in the QUD condition was not due to the choice of adjunct. The nouns chosen were systematically polar nouns, so that the NP antecedents can satisfy the discourse condition. Five conditions for a typical item:

(4)   a.   CM/QUD+ We are uncertain whether he will participate in the study. It will improve the results if he does.

          b.   CMM/QUD+ We are uncertain of his participation in the study. It will improve the results if he does.

          c.   CM/QUD We are uncertain whether he will participate in the study. It will improve the results if he does actively.

          d.   CMM/QUD We are uncertain of his participation in the study. It will improve the results if he does actively.

          e.   No Ellipsis We are uncertain whether he will participate in the study. It will improve the results if he participates actively.

We found no significant difference between the No Ellipsis and CM/QUD+ conditions. Individual violation of the match condition (CMM/QUD+) and of the discourse condition (CM/QUD) both led to a significant decrease in acceptability compared to the control condition ($p < 0.001$), with no significant difference between them: violation of the discourse condition can have as much effect on acceptability as category mismatch. When both the match and discourse condition are violated, acceptability is significantly lower than when a single condition is violated, but we find an underadditive pattern. We suggest that VPE requires an accessible antecedent in the discourse context, without any hard requirement of syntactic identity. However, a syntactically identical antecedent is more accessible, explaining the decrease in acceptability in the CMM conditions, even when the discourse condition is satisfied. Interestingly, other cases of deep anaphors are known to exhibit similar decreases in acceptability depending on the specific form of the antecedent (McKoon et al. 1993).

To conclude, I will discuss why syntactic identity improves acceptability, independently of the QUDRC; try to motivate the QUDRC itself in terms of usage; return to the classical deep vs. surface anaphora distinction, arguing that it does not draw a consistent boundary; insist on the independence of two often confused claims, namely that there has to be a syntactically identical antecedent and that there is unpronounced structure in the ellipsis site.

References

Arregui, Ana, Charles Clifton, Jr., Lyn Frazier, and Keir Moulton. 2006. Processing elided verb phrases with flawed antecedents: The recycling hypothesis. *Journal of Memory and Language* 55:232–246.

Bélanger, Suzanne Michelle. 2014. *Regeneration in Recall and Verb Phrase Ellipsis*. Ph.D. thesis, University of Toronto, Toronto.

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

Hankamer, Jorge and Ivan A. Sag. 1976. Deep and surface anaphora. *Linguistic Inquiry* 7:391–426.

Hardt, Daniel. 1993. *Verb Phrase Ellipsis: Form, Meaning, and Processing*. Ph.D. thesis, University of Pennsylvania. Distributed as IRCS Report 93-23.

Johnson, Kyle. 2001. What VP ellipsis can do, and what it can't, but not why. In Mark

Baltin and Chris Collins, eds., *The Handbook of Contemporary Syntactic Theory*, 439–479. Cambridge: Blackwell.

Kehler, Andrew. 2002. *Coherence, Reference, and the Theory of Grammar*. Stanford: CSLI Publications.

Kertz, Laura. 2013. Verb phrase ellipsis: The view from information structure. *Language* 89:390–428.

Kim, Christina S. and Jeffrey T. Runner. 2018. The division of labor in explanations of Verb Phrase ellipsis. *Linguistics and Philosophy* 41:41–85.

McKoon, Gail, Gregory Ward, and Roger Ratcliff. 1993. Morphosyntactic and pragmatic factors affecting the accessibility of discourse entities. *Journal of Memory and Language* 32:56–75.

Merchant, Jason. 2013. Voice and ellipsis. *Linguistic Inquiry* 44:77–108.

Miller, Philip. 2011. The choice between verbal anaphors in discourse. In I. Hendrickx, S. Lalitha Devi, A. Branco, and R. Mitkov, eds., *Anaphora Processing and Applications: 8th Discourse Anaphora and Anaphor Resolution Colloquium, DAARC 2011*, Volume 7099 of *Lecture Notes in Artificial Intelligence*, 82–95. Berlin: Springer.

Miller, Philip and Barbara Hemforth. 2014. Verb phrase ellipsis with nominal antecedents. Ms. Université Paris Diderot.

Miller, Philip, Barbara Hemforth, Pascal Amsili, and Gabriel Flambard. 2019. Missing antecedents found. Paper presented at the 2019 LSA meeting, New York.

Miller, Philip and Geoffrey K. Pullum. 2014. Exophoric VP ellipsis. In Philip Hofmeister and Elisabeth Norcliffe, eds., *The Core and the Periphery: Data-driven Perspectives on Syntax Inspired by Ivan A. Sag*, 5–32. Stanford, CA: CSLI Publications.

Onea, Edgar. 2016. *Potential Questions at the Semantics-Pragmatics Interface*. Leiden: Brill.

Poppels, Till and Andrew Kehler. 2020. Inferential ellipsis resolution: Sluicing, nominal antecedents, and the question under discussion. Paper presented at the 94th Annual Meeting of the Linguistic Society of America, New Orleans. URL https://tpoppels.github.io/files/2020-poppels-kehler-lsa.pdf.

Tanenhaus, Michael K. and Greg N. Carlson. 1990. Comprehension and deep and surface verbphrase anaphors. *Language and Cognitive Processes* 5:257–280.

Xiang, Ming, Julian Grove, and Jason Merchant. 2019. Structural priming in production through 'silence': an investigation of Verb Phrase ellipsis and null complement anaphora. *Glossa* 4.1.