Agreement Mismatches in Fragments and Distributed Ellipsis

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Outline of the Talk

Guiding questions about Ellipsis

(1) John won't swim, but Mary will ___.

(2) a. ***Structure question:*** Is there syntax internal to the ellipsis site?
   b. ***Identity question:*** The understood material is identical to some antecedent. Is the relevant kind of identity syntactic (defined over phrase markers or syntactic derivations) or semantic (defined over semantic representations or computations)?

(Merchant 2018)

Families of analyses

syntactic approaches

direct interpretration
and related approaches

Lobeck 1995,
Ginzburg and Sag 2000,
Culicover and Jackendoff 2005
Kim and Nykiel 2020

cyclic structure
building
plus
PF non-pronunciation

counter-cyclic
structure building

Fiengo and May 1994
Oku 1998
Landau 2021

Ross 1969
Lasnik 2001
Merchant 2001
Sailor 2021
Saab forthcoming
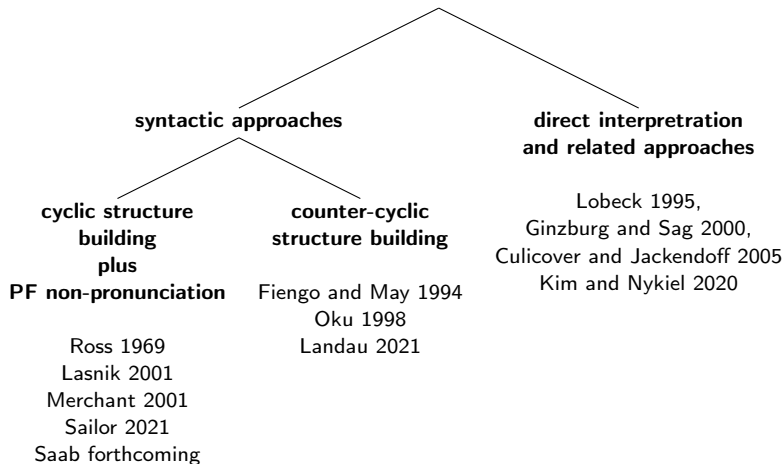
Overview of approaches

- **_Cyclic approaches:_** the omitted constituent is assembled in the narrow syntax, and ellipsis corresponds to a PF-deletion operation, an instruction to forego lexical insertion, or insertion of silent material.

- **_Counter-cyclic approaches:_** ellipsis sites do not start off with a complex syntactic structure. At LF or simply after spell-out before the final LF representation, the structure corresponding to the antecedent merges in the ellipsis site, thereby providing the final representation.

- Nothing excludes the possibility that different types of elliptical constructions are built with different devices.

Sidebar: rule interaction and derivational models

- ▶ A great deal of research in every module reveals opacity (e.g. wh- movement and *wanna*-contraction, affrication and apocope), and more recently in PF proper

- ▶ Arregi & Nevins 2012 contains numerous arguments for opacity specifically in the domain of PF, whereby a morphological dissimilation rule feeds a morphological metathesis rule.

- ▶ Specifically, the expected absolutive proclitic on the Basque auxiliary is deleted in a [+participant] configuration. The vacuum it leaves behind is filled by a metathesizing ergative clitic:

(3) Su-k   gu-∅   ikus-i   ***s***   -*endu*   -*n*
     you(Sg).ERG us-ABS see-PRF **CL.E.2.SG** -PST.1.PL -CPST

     'You(Sg) saw us.'   (Ondarru)

Agreement as a connectivity effect

(4)   Some people think there are no such rules, but there {*is/are}.

<div align="right">(adapted from Ross 1969)</div>

(5)   a. First, there were bananas available, and then there {weren't/*wasn't}.

b. First, there were going to be bananas available, and then there {weren't/ *wasn't}.

<div align="right">(Merchant, 2013)</div>

▶ If agreement morphology is the reflex of a syntactic dependency relating two syntactic objects in a particular configuration, ellipsis sites must somehow provide syntactically active elements capable of controlling agreement.

▶ As pointed out by Van Craenenbroeck and Merchant (2013), this argument for hidden structure has not featured prominently in the literature.

▶ In the current talk we provide evidence from Closest-Conjunct Agreement in South Slavic for abstract syntactic structure and PF structure in the ellipsis site.

Previous work

In previous production and acceptability judgement experiments, we have established across six sites with varieties of Slovenian and Bosnian/Croatian/Serbian that verbal agreement can be with the linearly closest conjunct:

(6) Včeraj   so   bile   [krave   in teleta]   prodana.
     yesterday AUX.PL been.FEM.PL cow.FEM.PL and calf.NEUT.PL sold.NEUT.PL
     'Yesterday cows and calves were sold.'
     (Slovenian; Marušič, Nevins, and Badecker (2015))

We argued for a model in which Agreement takes place in two steps: Agree-Link, which chooses an agreement controller in the syntax, and Agree-Copy, which at PF copies features from the XP chosen as a controller. Assuming that Linearization of syntactic structure occurs only at PF, Closest Conjunct Agreement must result from Linearization feeding Agree-Copy.

Present context

Short answers to polar questions, which in several languages can consist of the lexical verb alone, sometimes accompanied by a polarity particle and an auxiliary clitic, without the (otherwise obligatory) arguments (i.e., verb-echo answers).

(7)   A: Jel Ivan kupuje šećer?
             Q   John buy.3SG sugar
             'Is John buying sugar?'
    B: Da, kupuje.
             yes buy.3SG
             'Yes, he is.'

SV order

(8) A: Jesu   li molbe   i   rješenja   ovjerena   pečatom?
         Aux.PL Q request.F.PL and resolution.N.PL verify.N.PL by stamp
         'Were requests and resolutions verified by stamp?'

     B: Da, ovjerene=su.   /ovjerena=su.   /ovjereni=su.
         Yes, verify.F.PL=AUX.PL /verify.N.PL=AUX.PL /verify.M.PL=AUX.PL
          'Yes. They were verified by stamp.'

The fragment answer contains no visible agreement controller. We refer to the three possible morphological forms of the verb as *old* agreement, *switch* agreement, and default agreement.

VS order

(9) A: Jesu   li u trgovini izložena   ogledala   i   lampe?
         Aux.PL Q in shop   displayed.N.PL mirrors.N.PL and lamps.F.PL
         'Were mirrors and lamps displayed in the shop?'

     B: Da, *izložene=su.   /izložena=su.   /izloženi=su.
         Yes, verify.F.PL=AUX.PL /verify.N.PL=AUX.PL /verify.M.PL=AUX.PL
          'Yes. They were displayed in the shop.'

As with their unelided counterparts, in VS order it is not possible to have last-conjunct
agreement (switch agreement), as this would be with an XP that is neither highest nor
linearly closest.

Previous production work

- In previous work (presented at FASL28 2019, SLS16 2021, PNCLR9 2021), we demonstrated in production experiments that participants freely produce switch-agreement in SV structures, but significantly less so in VS structures.

- In the current experiment we sought to obtain acceptability ratings to confirm that this low rate of production was indeed due to a grammatical dispreference.

Experimental procedure

- Acceptability judgement with 31 participants in Zadar/Croatia and 31 participants in Niš/Serbia, 7-point scale

- 2x2x2 design: MM conjunction vs NF conjunction, SV order vs VS order, and Old-Agreement vs Switch-Agreement

- 6 items per condition, Latin Square Design, plus 48 fillers without &Ps.

- Experiment presentation via PCIbex platform (https://www.pcibex.net).

Results of rating experiment

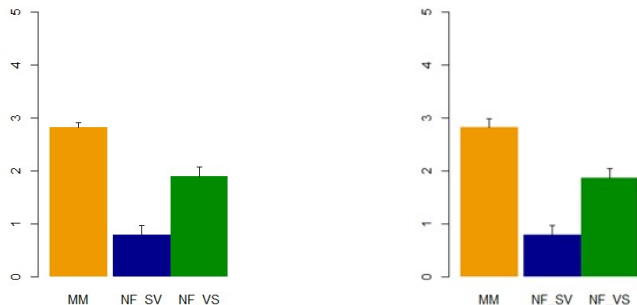**Mean ratings per condition**
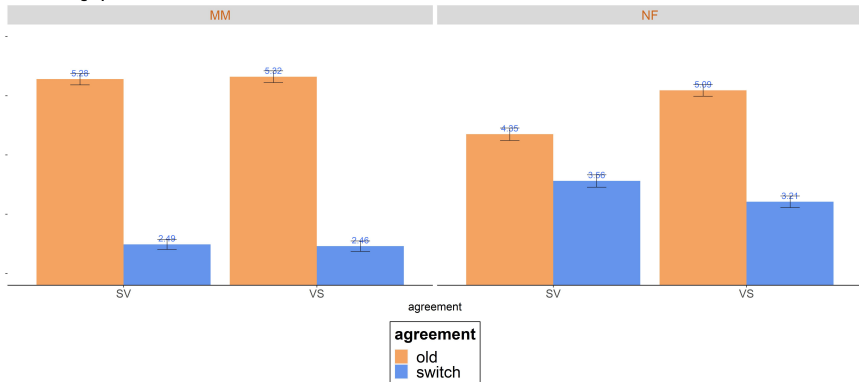
Comparison of Switch-Agreement in SV vs VS following lmer mixed effects model:
t=2.929, p = 0.003**

Indices of switch-dispreference

We refer to the index of preference as the difference in rating between Old and Switch Agreement for these conditions:

The dispreference for switch agreement in VS remains higher than for SV when analyzed by item (left) and by participant (right).
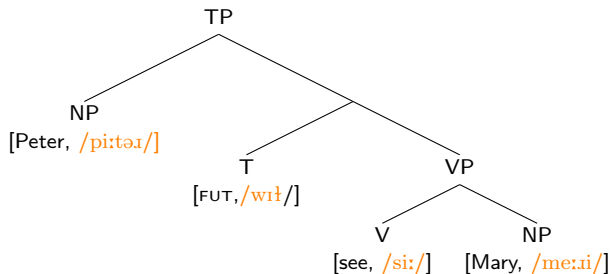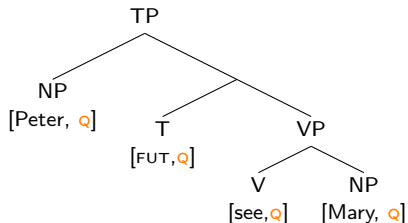
Implementation

▶ Syntactic terminals with Halle's (1991) Q-feature undergo Vocabulary Insertion, one of the very last steps at PF.

▶ Ellipsis in the syntax involves deletion of the Q-feature on the relevant terminals, which will deprive them of Vocabulary Insertion (see, e.g., Saab forthcoming).

▶ Importantly, since Q-deletion doesn't implicate either obliteration of the whole syntactic terminals or any further tampering with other morpho-syntactic features, Q-less elements can still take part in operations within the PF cycle (though see Lipták and Saab 2016 for further discussion on the interaction between ellipsis sites and morphological operations).

▶ Crucially, PF operations such as Linearization and Agree-Copy, operating on abstract PF structure, occur even though the terminals undergoing them are not pronounced.

Implementation

▶ Vocabulary insertion as Q-replacement (Halle 1991, Embick 2015)
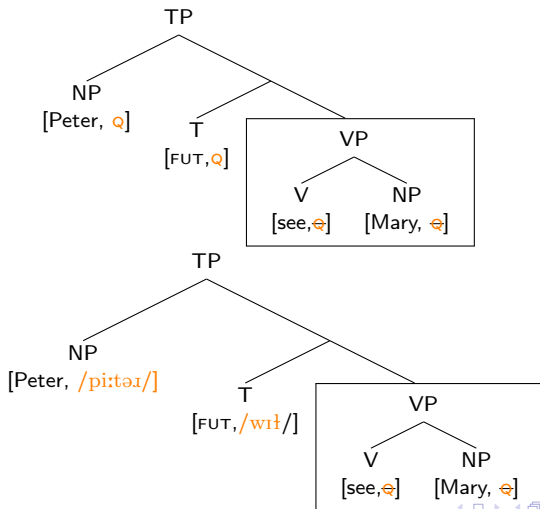
(10)   Peter will see Mary.

```
                    TP
                   /  \
                 /      \
               NP        \
           [Peter, Q]     \
                    T      VP
                 [FUT,Q]  /  \
                        /      \
                       V        NP
                   [see,Q]   [Mary, Q]
```

```
                    TP
                   /  \
                 /      \
               NP        \
         [Peter, /piːtəɹ/] \
                    T        VP
              [FUT,/wɪɫ/]   /  \
                          /      \
                         V        NP
                  [see, /siː/]  [Mary, /meːɹi/]
```

Implementation

▶ Ellipsis as Q-deletion (Saab forthcoming)
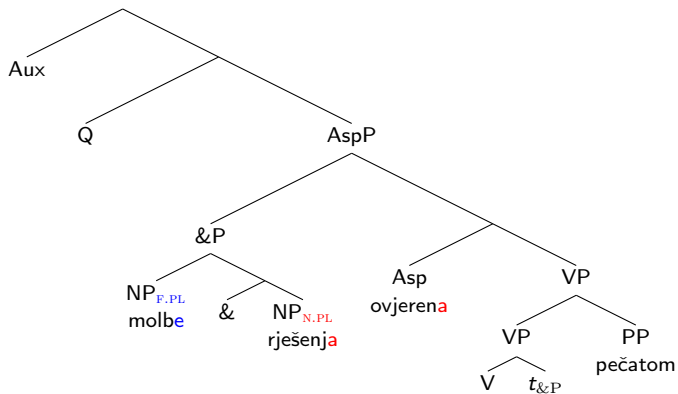
(11) A: Mary won't see Mary.
   B: Peter will.

Fragment answer implementation

- Arguments that raise above the verb in Questions must do so in Answers as well, to maintain parallelism of information structure (Kehler 2000, Neeleman and van de Koot 2008, Titov 2012).

- Ellipsis in fragment answers of these sorts involves argument ellipsis (see e.g. Oku 1998, Landau 2018, Landau 2019, among others), with the availability of limited adjunct omission (Oku 2016).

- Reshuffling of the relative order of the conjuncts inside the &P is also disallowed in the Question-Answer pair. That is, some degree of syntactic identity is required (*pace* Merchant 2001, Abels 2018).

- Auxiliaries are postposed into 2nd position, following the participle, as a late prosodic inversion (cf. Ionova 2019, Bošković and Nunes 2007).

SV structures: polar questions

Aux
Q
AspP
&P
NP$_{\text{F.PL}}$
molbe
&
NP$_{\text{N.PL}}$
rješenja
Asp
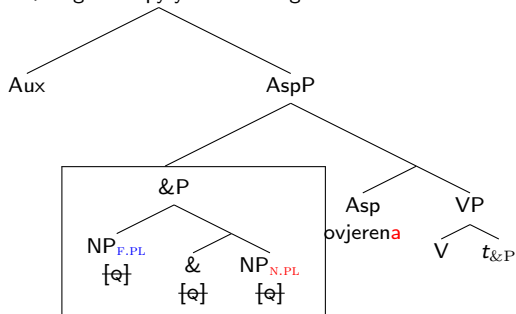ovjerena
VP
VP
PP
pečatom
V
$t_{\&\text{P}}$

Fragment answers to SV showing HCA

Agree-Copy > Linearization yields Switch Agreement
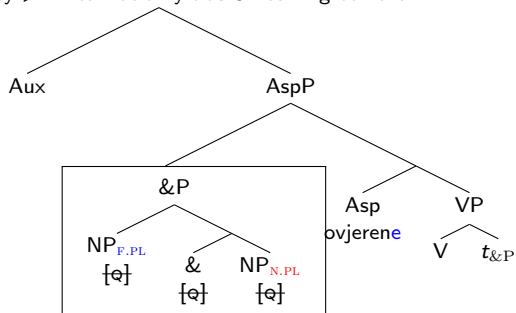
Fragment answers to SV showing HCA

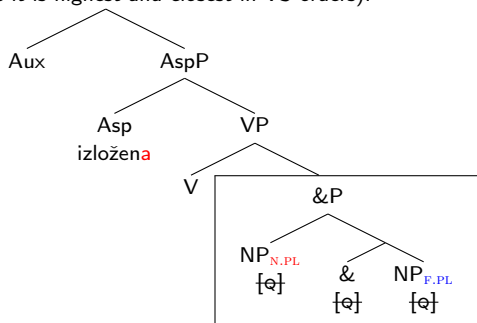Linearization > Agree-Copy yields Old Agreement

- Aux
- AspP
  - &P
    - NP$_{\text{F.PL}}$ [θ]
    - & [θ]
    - NP$_{\text{N.PL}}$ [θ]
  - Asp ovjeren**a**
  - VP
    - V
    - $t_{\&\text{P}}$
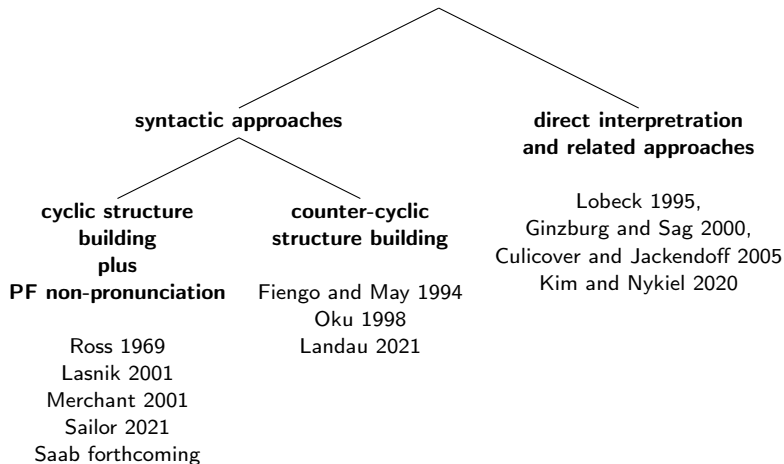
VS questions: structure
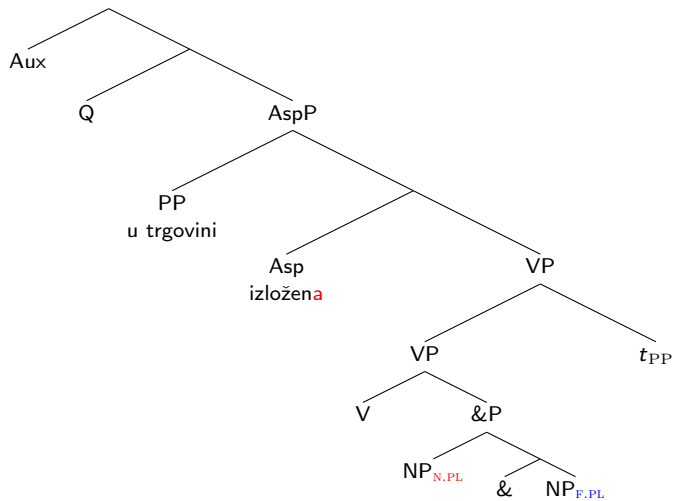
VS fragment answers

Either order of Agree-Copy and Linearization will yield agreement with the first
conjunct (as it is highest and closest in VS orders):

▶ As above, the position of &P in the answer has to be the same as the position
  of &P in the question.

▶ The grammar blocks LCA because of the underlying VS word order.

Conclusions

syntactic approaches

direct interpretration
and related approaches

cyclic structure
building
plus
PF non-pronunciation

counter-cyclic
structure building

Lobeck 1995,
Ginzburg and Sag 2000,
Culicover and Jackendoff 2005
Kim and Nykiel 2020

Fiengo and May 1994
Oku 1998
Landau 2021

Ross 1969
Lasnik 2001
Merchant 2001
Sailor 2021
Saab forthcoming

Conclusions

- The restricted possibility of agreement switch in the answer makes it unlikely that analyses that do not resort to complex abstract syntax in the ellipsis site can account for the findings presented here without resorting to additional stipulations.

- Furthermore, the facts presented here suggest that ellipsis sites have regular PF articulation.

Conclusions

On a 'don't send to PF approach', none of the postsyntactic operations below will happen, while on a Q-deletion approach, only the last one is bled:
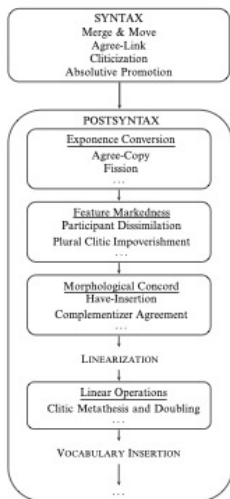
It is not only the case that one needs silent structure in the syntax, but at PF as well (*pace* Murphy & Müller, to appear).

Conclusions

- The possibility of agreement switch with pre-verbal &P and its impossibility with post-verbal &P implies that a purely semantic identity condition on ellipsis won't suffice (*pace* Merchant 2001, Abels 2018).

- Furthermore, while supplementing a semantic identity condition with a lexical requirement helps in some cases (e.g. NoNewWords, *John is jealous, but I don't know *(of) who*), it won't suffice here either because it would in principle allow reshuffling of the relative order of the conjuncts inside the &P in the ellipsis site (*pace* Chung 2006, Merchant 2013).

- Approaches that impose a more strict structural matching condition between antecedent and ellipsis sites, at least in some domains, are better suited to deal with our data (Chomsky 1965, Lasnik 1995, Tanaka 2011, Rudin 2019, Ranero 2020, Saab forthcoming).

Conclusions

▶ For concreteness, we have assumed an argument ellipsis for fragment answers to polar questions (Landau 2018, Landau 2019).

▶ An analysis in terms of $X_{[+V]}$-stranding $XP_{[+V]}$-ellipsis (Goldberg 2005, Gribanova 2013, Holmberg 2016, Mendes 2020, Ruda 2021) can, in principle, deliver similar results.

▶ We are currently applying a battery of tests from previous literature to determine the exact size of the ellipsis site. If argument ellipsis is confirmed, our findings provide potential counter-examples to the anti-agreement hypothesis, according to which agreement blocks argument ellipsis (see e.g. Saito 2007, Takahashi 2014, Duguine 2008).

References

Abels, Klaus. 2018. On "sluicing" with apparent massive pied-piping. *Natural Language & Linguistic Theory* URL https://doi.org/10.1007/s11049-018-9432-1.

Bošković, Željko, and Jairo Nunes. 2007. The copy theory of movement: A view from PF. In *The copy theory of movement*, ed. Norbert Corver and Jairo Nunes, 13–74. Amsterdam: John Benjamins.

Chomsky, Noam. 1965. *Aspects of the theory of syntax*. Cambridge, Massachusetts: MIT Press.

Chung, Sandra. 2006. Sluicing and the lexicon: The point of no return. In *Berkeley Linguistic Society 31*, ed. Rebecca T. Cover and Yuni Kim, 73–91. Berkeley Linguistics Society, Berkeley, California: UC, Berkeley.

Duguine, Maia. 2008. Argument ellipsis: A unitary approach to pro-drop. *The Linguistic Review* 31:515–549.

Embick, David. 2015. *The morpheme: A theoretical introduction*. De Gruyter Mouton. URL https://doi.org/10.1515/9781501502569.

Goldberg, Lotus. 2005. Verb-stranding VP ellipsis: A cross-linguistic study. Doctoral dissertation, McGill, Monteal, QC.

References

Gribanova, Vera. 2013. Verb-stranding verb phrase ellipsis and the structure of the Russian verbal complex. *Natural Language and Linguistic Theory* 31:91–136.

Halle, Morris. 1991. The Latvian declension. In *Yearbook of morphology*, ed. Geert Booij and Jaap van Marle, 33–47. Dordrecht: Kluwer Academic Publishers.

Holmberg, Anders. 2016. *The syntax of yes and no*. Oxford: Oxford University Press.

Ionova, Anastasiia. 2019. The unbearable lightness of clitics. Doctoral dissertation, Leiden University.

Kehler, Andrew. 2000. Coherence and the resolution of ellipsis. *Linguistics and Philosophy* .

Landau, Idan. 2018. Missing objects in Hebrew: Argument ellipsis, not VP ellipsis. *Glossa: A Journal of General Linguistics* 3:1–37.

Landau, Idan. 2019. On the nonexistence of verb-stranding VP-ellipsis. *Linguistic Inquiry* 1–25.

Lasnik, Howard. 1995. Verbal morphology: Syntactic structures meets the minimalist program. In *Evolution and revolution in linguistic theory: Essays in honor of carlos otero*, ed. Héctor Campos and Paula Kempchinsky, 251–275. Linguistic Society of America.

References

Lipták, Anikó, and Andrés Saab. 2016. Movement and deletion after syntax. *Studia Linguistica* 70:66–108.

Marušič, Franc, Andrew Nevins, and Bill Badecker. 2015. The grammars of conjunction agreement in Slovenian. *Syntax* 18:39–77.

Mendes, Gesoel. 2020. Investigations on salvation and non-salvation by deletion. Doctoral dissertation, University of Maryland.

Merchant, Jason. 2001. *The syntax of silence: sluicing, islands, and the theory of ellipsis*. Oxford: Oxford University Press.

Merchant, Jason. 2013. Polarity items under ellipsis. In *Diagnosing Syntax*, ed. Lisa L.-S. Cheng and Norbert Corver, 441–462. Oxford: Oxford University Press.

Merchant, Jason. 2018. Ellipsis: A survey of analytical approaches. In *The oxford handbook of ellipsis*, ed. Jeroen van Craenenbroeck and Tanja Temmerman, 19–45. Englewood Cliffs, New Jersey: Oxford University Press.

Neeleman, Ad, and Hans van de Koot. 2008. Dutch scrambling and the nature of discourse templates. *The Journal of Comparative Germanic Linguistics* 11:137–189.

Oku, Satoshi. 1998. A theory of selection and reconstruction in the minimalist perspective. Doctoral dissertation, University of Connecticut, Storrs, CT.

References

Oku, Satoshi. 2016. A note on ellipsis-resistant constituents. *Nanzan Linguistics* 11:57–70.

Ranero, Rodrigo. 2020. The eventive core is not special in ellipsis: a reply to Rudin (2019). Manuscript, University of Maryland.

Ross, John Robert. 1969. Guess who? In *Chicago Linguistics Society*, ed. Robert I. Binnick, Alice Davison, Georgia M. Green, and Jerry L. Morgan, 252–286. Chicago, Illinois.

Ruda, Marta. 2021. Verb-echo answers in Polish as V-stranding VoiceP/vP ellipsis. Handout presented at North East Linguistics Society 52.

Rudin, Deniz. 2019. Head-based syntactic identity in sluicing. *Linguistic Inquiry* 50:253–283.

Saab, Andrés. forthcoming. Grammatical silences from syntax to morphology. In *The derivational timing of ellipsis*, ed. Güliz Güneş and Anikó Lipták. Oxford: Oxford University Press.

Saito, Mamoru. 2007. Notes on East Asian argument ellipsis. *Language Research* 203–227.

References

Takahashi, Daiko. 2014. Argument ellipsis, anti-agreement, and scrambling. In *Japanese syntax in comparative perspective*, ed. Mamuro Saito, 88–116. Oxford: Oxford University Press.

Tanaka, Hidekazu. 2011. Syntactic identity and ellipsis. *The Linguistic Review* 28:79–110.

Titov, Elena. 2012. Information structure of argument order alternations. Doctoral dissertation, University College London.