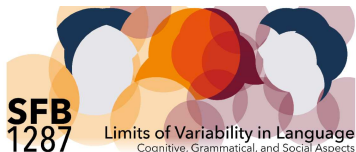# The syntax of sharing constructions

4. Challenges and open questions

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1287   Limits of Variability in Language
         Cognitive, Grammatical, and Social Aspects

Overview

❶ Conflicting evidence

❷ Contested facts

❸ Variation

❹ What needs to be done

Overview

Conflicting evidence: reconstruction (Citko 2005; Munn 1993)

- reconstruction is symmetric for variable binding, idiom interpretation, strong crossover, scope → symmetric approach

- reconstruction is asymmetric for Prinicple A, C, weak cross-over → asymmetric approach

⇒ **conflicting evidence in the same language**

(1) Variable binding:

    a. #?Which picture of his mother did every Italian like and Mary dislike?
    b. #?Which picture of his mother did Mary dislike and every Italian like?

(2) Principle A :

    a.   *Which pictures of himself$_i$ did Mary sell and John$_i$ buy?
    b.   Which picture of himself$_i$ did John$_i$ sell and Mary buy?

(3) Principle C:

    a.   *Which picture of John$_i$ did he$_i$ like and Mary dislike?
    b.   Which picture of John$_i$ did Mary like and he$_i$ dislike?

Conflicting evidence: reconstruction

- often, authors only cite the a/symmetric subset of the reconstruction data that supports their proposal (and leave open how the other subset can be explained)

- exceptions: Moltmann (1992); Munn (1994; 2001); Salzmann (2012) provide explanations for the full data set

Conflicting evidence: RNR (Barros and Vicente 2011)

- Vehicle change effects in English RNR favor an ellipsis approach

    (4) **She**$_i$ hopes that he won't [ ], but I fear that the boss will fire **Alice**$_i$.

- cumulative agreement in English RNR favors a multi-dominance approach

    (5) Alice is proud that Beatrix [ ], and Claire is happy that Diana [ ],
    have/*has traveled to Cameroon.

$\rightarrow$ **conflicting evidence in the same language**

Conflicting evidence for RNR: a solution

Solution proposed in Barros and Vicente (2011): **eclectic theory of RNR** (see also Chaves 2014; Belk et al. 2021)

- p.1: "[W]e propose an eclectic alternative, where 'RNR' is a cover term for a family of syntactic processes that have similar superficial outputs."

    (6) An eclectic theory of Right Node Raising:
        Both backward ellipsis and multidomination are possible sources for RNR."

- claim: these structures are in complementary distribution

- evidence: MD and ellipsis impose different requirements on the structure; these cannot hold simultaneously, hence, combining typical properties of ellipsis and MD in one RNR-sentence should result in ungrammaticality – this is borne out

Conflicting evidence for RNR: a solution

(7) Morph. mismatches (ellipsis) + cumulative agreement (MD):

Alice is happy that Beatrix [ ], and Claire is proud that Daniel [ ], **have**/*has negotiated his salary with the manager.

reading: Beatrix negotiated *her/his(Daniel's) salary   *only strict reading*

$\rightarrow$ the presence of cumulative agreement blocks the morph. mismatch (sloppy reading of the pronoun in the shared material)

(8) cumulative agreement (MD)+ vehicle change (ellipsis):

She$_{*i/k}$ fears that Alex [ ], and I worry that Bob [ ], **have**/*has decided to nominate Claire$_i$.

cumulative agreement blocks vehicle change

$\Rightarrow$ see Larson (2012); Belk et al. (2021) for qualifications

Overview

1 Conflicting evidence

2 Contested facts

3 Variation

4 What needs to be done

Contested facts: reconstruction

Problem: people disagree about the judgments (for English):

- **variable binding**: Nissenbaum (2000): it is symmetric in English ATB

- **Principle A**

  - Nissenbaum (2000): no reconstruction for Principle A in English – both examples in (2) are ungrammatical
  - Haïk (1985; 2009): reconstruction for Principle A is symmetric – both examples in (2) are ungrammatical

- **Principle C**

  - Nissenbaum (2000): reconstruction is symmetrical (both examples in (3) are ungrammatical)
  - Ha (2008: 264f): Principle C reconstruction in ATB is only asymmetric (into the 1st conjunct) with wh-movement, but symmetric with other Ā-movement types (relaivization, topicalization, ...), see (9) and (10)

Contested facts: reconstruction

(9) Ha (2008: 265)

    a.   *The student$_i$ who Mary likes but **he**$_i$ dislikes works on Right Node Raising.

    b.   *The student$_i$ who **he**$_i$ likes but Mary dislikes works on Right Node Raising.

(10) a.   *President Bush$_i$, every Democrat criticizes, but **he**$_i$ admires.

      b.   *President Bush$_i$, **he**$_i$ admires, but every Democrat criticizes.

Contested facts: NPI-licensing

- Larson (2014: 259): an NPI in the shared material can only be licensed by negation in the 2nd conjunct – argues for an ellipsis approach

  (11) a. *Becky **didn't** buy __, and Bruce sold __, any books about trees.
  b. Becky bought __, but Bruce **didn't** sell __, any books about trees.

- but there is **more variation**: *few X* can license an NPI

  Sabbagh (2007: 363,fn.11): "For some speakers, it is crucial that the NPI be licensed in all conjuncts. For other speakers, however, it is only crucial for the NPI to be licensed in the rightmost conjunct."

  (12) a. %John immensely enjoyed, but few other people liked, any of the talks on RNR.
  b. *Few people liked, but John immensely enjoyed, any of the talks on RNR. ?

  (13) Nobody enjoyed, and few people even liked, any of the talks on 'Right Node Raising'.   (Kayne 1994: 67,fn.19)

Contested facts: island-sensitivity

- island-sensitivity of ATB: is symmetric (it doesn't matter in which conjunct the islands occurs, the result is ungrammatical) → symmetric approach

(14) Complex NP island (de Vries 2017: 2,7):
  a. *Which book do you think [Peter bought __] and [Susan knows [a man who actually read __]] ?
  b. *Which book do you think [that Peter knows [a man who bought __]] and [that Susan actually read __] ?

- Zhang (2010): island effects are only triggered in the first conjunct → asymmetric approach

(15) Adjunct island (Zhang 2010: 226):
  a. *Who did [Bill lose business [because he hired __]] and [Mary praise __ a lot] ?
  b. %Who did [Bill praise __ a lot] and [Mary lose business [because she hired __]] ?

Contested facts: island-sensitivity

Sabbagh (2014: 29):

"In Ross' early discussion of RNR, examples similar to (15) [RNR with a wh-islands in each conjunct] were claimed to be ungrammatical, though to a lesser extent than other instances of island-crossing movement. Later, Wexler and Culicover (1980) reported that similar sentences are completely grammatical, and this judgment has remained as the accepted fact in virtually all work on RNR since."

Contested facts: case matching

- **case matching**:
  - it's unclear whether there is a proximity effect in Polish RNR (some sources say yes, others say no), but it seems to be non-existent with ATB

  - at the same time, the same languages seem to have robust proximity effects with verbal morphology – why should that be the case?

  - unclear whether syncretism actually ameliorates case mismatches in Russian RNR: Asarina (2011) – yes, Ibnbari (2014) – no

  - but see the experimental study by Rothert (2022), who found a proximity effect in Polish ATB + RNR!

- **scope facts**: often rather subtle, how stable are these judgments?

⇒ **problem**: the judgments in the literature are virtually all based on introspection by very few people

Overview

Cross-linguistic variation

- the vast majority of the studies still deals with English

- there's some work on Germanic (German, Dutch) and Slavic languages (esp. for case mismatches)

- occasionally, we find studies on non-IE languages that are prominent in formal lingusitics, e.g., Korean, Japanese

- problem: no systematic comparison across languages; different tests are applied; not all the relevant diagnostics are applied

- note: not all tests can be applied equally to all SCs: while ((a)symmetric) reconstruction is a core piece of evidence in the ATB- (and pg-) literature, it is not in the RNR-literature; reason: if RNR does not involve movement (majority view), there is nothing to reconstruct

Cross-linguistic variation

- it is often presupposed that SCs work the same across languages, but that is unclear (recall Barros and Vicente's (2011) eclectic analysis of English RNR)

- that is sometimes reflected in the argumentation: Citko (2005) provides evidence for her MD approach to ATB from

  - reconstruction in English
  - case mismatches in Polish
  - the absence of covert ATB in Korean/Chinese/Japanese

Cross-linguistic variation

- we have some evidence for different derivations of SCs in different languages:

  - Sabbagh (2008) provides evidence for a movement analysis of RNR in Tagalog (see Larson 2011 for counter-evidence);
    RNR in English: most researchers reject the movement analysis

  - de Vries (2007):there are no morphological mismatches (with verbal morphology) in Dutch RNR – unlike in English ↪ RNR probably involves ellipsis in English, but not in Dutch

    (16)   *... dat jullie   boeken <kop-en> en   ik CD's koop
              that you.PL books buy-PL   and I CDs buy-SG
          "that you buy books and I buy CDs."   (Vries 2007: (19c))

  - Citko (2011): Polish exhibits proximity effect in RNR; unclear for Russian RNR (Asarina 2011; Ibnbari 2014)

  - Ha (2008: 13, fn.8): RNR in Korean can violate the Right Edge Cond.

⇒ there is no systematic comparison of different languages

Within-language variation

Are all SCs in a given language derived in the same way?

- see Barros and Vicente (2011) on intra-speaker variation in RNR in English – they postulate more than one structure for this construction

- there are empirical arguments against a uniform analysis for several SCs in a given language

- example: Postal (1993) lists a number of differences between ATB and pgs in English; Levine et al. (2001) agree with the judgments Postal gives for his examples, but they also provide counter-evidence → unresolved issue

Within-language variation: Postal (1993) I

- a collection of empirical evidence against the unitary treatment of ATB-movement and PGs based on the contrasts they exhibit

- claim: ATB is more general, more restrictions on pgs

- some differences:

  ❶ category: only NPs (DPs) are allowed to be PGs, but ATB can apply to basically any category that can be extracted

  (17) a.   This is $[_{DP}$ a topic $]_1$ you should think about ___$_1$ before talking about pg$_3$.

  b.   *$[_{AP}$ How sick $]_1$ did John look ___$_1$ without actually feeling pg$_1$?

  (18) a.   This is $[_{DP}$ a topic $]_1$ you should think about ___$_1$ and I should talk about pg$_1$.

  b. $[_{AP}$ How sick $]_1$ did John look ___$_1$ and (Betty) say he actually felt ___$_1$?

Within-language variation: Postal (1993) II

❷ finite subjects: PGs cannot occur in finite clause subject position (see (19)), but ATB gaps can (see (20))

(19) a. [Which patient $]_1$ did he convince $\_\_\_1$ (that he had agreed) (that) he should visit pg_1?

b. *[Which patient $]_1$ did he convince $\_\_\_1$ (that he had agreed) (that) pg_1 should visit him?

(20) Which patients$_1$ did he convince you t_1 were already doctors and t_1 were going to become psychiatrists?

Within-language variation: Postal (1993) III

❸ pronominalization: pgs are blocked in positions where definite pronouns are illegitimate (see (21)), but no such restriction holds for ATB gaps (see (22))

(21) a.   There are spiders/*them in the soup.

     b.   [What kind of spiders $]_1$ are there ___$_1$ in the soup?

     c.   *It was [such spiders $]_1$ that everyone who said there were pg$_1$ in the soup refused to eat ___$_2$.

(22) The kind of spiders$_1$ that he found ___$_1$ in the chicken soup yesterday and there will be ___$_1$ in the bean soup today are hairy ones.

Within-language variation: Levine et al. (2001) I

- they present counter-evidence to Postal's claims (the restrictions on pgs Postal proposes actually do not hold in general)

- Still, they agree that the examples provided by Postal are ungrammatical; small lexical changes (and stress) can improve some examples

- examples (capitals indicate contrastive stress):

    ❶ category: pgs can be of categories other than just NP/DP

    (23) a. [AP How harshly] do you think we can treat THEM without in turn being treated pg OURSELVES?   (adverbial P-gap)

    b. That's the kind of table [PP ON WHICH] it would be wrong to put expensive silverware __ without also putting pg a fancy centerpiece.   (PP P-gap)

Within-language variation: Levine et al. (2001) II

❷ finite subject pgs: can be found, see (24-a); become more acceptable if the adjunct clause precedes the main clause, see (24-b)

(24) a. Which people did you invite __ to the party without thinking **pg** would actually come?

b. Robin sold me a car, which after I discovered **pg** wouldn't go more than fourty miles an hour I sold __ to an eccentric collector.

❸ pronominalization: there are instances of anti-pronominal contexts in which a pg can occur

(25) a. There's certain evidence which I won't feel comfortable acting on __ without first showing Robin **pg**.

b. *We showed Robin **it**.

Overview

What needs to be done

contested facts: we need experimental work to collect acceptability judgments from larger speaker groups to

- get a more solid data base
- identify variation (e.g., different speaker groups, factors)
- previous studies on the syncretism/proximity effect:
    - with verbal morphology: Kluck (2009) on Dutch RNR, Shiraïshi et al. (2019) on English and French RNR
    - with case matching: Asarina (2011) on Russian RNR, Hartmann et al. (2016) on German ATB, Rothert (2022) on Polish ATB and RNR
    - → see Rothert (2022) for an overview and critique of previous studies

Experimental work on case matching I

Asarina (2011):

- studies whether syncretism can repair case mismatches in Russian RNR

- acceptability rating study (simple acceptability choice: yes / no)

- distinction between (a) three types of syncretism: neutral (metasyncretism across declension classes), morphological ambiguity (accidental homophony), phonological ambiguity, and (b) two matching conditions (syncretic vs. matching with the adjacent (2nd) conjunct)

- results: neutral forms lead to an increase in acceptability, morphological/phonological ambiguity does not

Experimental work on case matching II

Hartmann et al. (2016)

- question: does syncretism ameliorate case mismatches in ATB topicalization in German?

- 2 acceptability rating studies (thermometer judgement): Nom-Acc syncretism with 1. an extracted experience, and 2. an extracted theme object

- 3 conditions: matching, syncretic, matching only the adjacent gap

- result: matching $\succ$ syncretic + adjacent gap condition (the two latter two get very low ratings, no significant difference between them) $\rightarrow$ case mismatches are not tolerated at all, also not with a syncretic case form – contrary to claims in the literature

Experimental work on case matching III

Rothert (2022):

- acceptability rating study on case (mis)matching (ACC + GEN of negation) in Polish ATB vs. RNR

- 4 conditions: matching, syncretism, adjacent gap matching, distant gap matching

- 1st study that compares ATB and RNR – important wrt. proximity effects

- results:
    - parallel behaviour of ATB and RNR – not in line with claims in the literature
    - matching (5) ≻ syncretic ≻ adjacent gap ≻ distant gap (2)
    - strict matching is not a requirement for grammaticality

- compatible with ellipsis approaches

Experimental work on verbal morphology I

Kluck (2009):

- studies subject-verb-agreement in Dutch RNR

- question: is sharing subject to (a) identical syntactic features of the subjects in the conjuncts, (b) identical form (syncretic effect), (c) linear closeness/proximity effect (agreement with the linearly closest conjunct)

- acceptability rating study, 4 conditions: matching features, syncretism, matching with the adjacent (2nd) conjunct, matching with the non-adjacent (1st) conjunct

- result: matching/syncretic ≻ adjacent ≻ non-adjacent
  → identical features are not necessary to make RNR acceptable for any participant, the sentence is grammatical as long as there is matching with the adjacent gap

- but: there were major differences between speakers; the items were not minimal pairs

Experimental work on verbal morphology II

Shiraïshi et al. (2019):

- topic: the effect of syncretism in verbal (tense+mood) inflection on the acceptability of RNR

- acceptability rating study in English and French

- conditions: syncretic form vs. a form that matches the requirements of the adjacent (2nd) conjunct

- results: both conditions receive high ratings, no significant difference $\rightarrow$ no syncretism effect in these languages

What needs to be done

variation:

- if possible, apply the same set of tests systematically to
    - different SCs in the same language
    - the same SC across different languages
    - many more languages !

- do we also need an eclectic theory for ATB and pgs?

- <u>desideratum</u>: a study of some SC in a language L should only involve evidence from L, not from other languages

What needs to be done

conflicting evidence: we need to <u>understand the tests</u> better:

- what is the <u>nature of the phenomena</u> we're using to probe syntactic structure, e.g.: strong / weak cross-over / ...?

- there are well-known <u>exceptions to Principle A</u> in English: non-local binding, without c-command, across interveners, ...

  (26) Pollard and Sag (1992):
     a. **Bill**$_i$ remembered that the Times had printed a picture of **himself**$_i$ [. . .].
     b. The picture of **himself**$_i$ in Newsweek dominated **John**$_i$'s thoughts.

- <u>Principle C</u> is influenced by <u>non-syntactic factors</u> (Salzmann et al. 2022)

- <u>processing</u> may play role (proximity effects)

⇒ the a/symmetric data may have a different explanation (unrelated to the derivation of SCs)

Bibliography I

Asarina, Alevtina A. (2011): Case in Uyghur and beyond. PhD thesis, MIT.

Barros, Mathew and Luis Vicente (2011): 'Right node raising requires both multidominance and ellipsis', *University of Pennsylvania Working Papers in Linguistics* **17**(1), 1–9.

Belk, Zoë, Ad Neeleman and Joy Philip (2021): 'What divides, and what unites, right-node raising', *Linguistic Inquiry* .

Chaves, Rui P. (2014): 'On the disunity of right-node raising phenomena: Extraposition, ellipsis and deletion', *Language* **90**(4), 834–886.

Citko, Barbara (2005): 'On the Nature of Merge: External Merge, Internal Merge, and Parallel Merge', *Linguistic Inquiry* **36**(4), 475–496.

Citko, Barbara (2011): *Symmetry in syntax: Merge, move, and labels*. Cambridge University Press.

de Vries, Mark (2017): Across-the-Board Phenomena. *In:* M. Everaert and H. van Riemsdijk, eds, *The Wiley Blackwell Companion to Syntax*. 2 edn, John Wiley and Sons Inc., pp. 1–31.

Ha, Seungwan (2008): Ellipsis, Right Node Raising and Across the Board Constructions. PhD thesis, Boston University, Boston.

Haïk, Isabelle (1985): The syntax of operators. Phd dissertation, MIT.

Haïk, Isabelle (2009): Across-the-board variables. Ms., Université de Caen.

Bibliography II

Hartmann, Jutta, Andreas Konietzko and Martin Salzmann (2016): On the limits of non-parallelism in ATB-movement. Experimental evidence for strict syntactic identity. *In:* S. Featherston and Y. Versley, eds, *Quantitative approaches to grammar and grammatical change: Perspectives from Germanic*. de Gruyter, Berlin, pp. 51–83.

Ibnbari, Lena (2014): Right node raising structures in Russian: An analysis in terms of multidominance. PhD thesis, Ben-Gurion University of the Negev.

Kayne, Richard S. (1994): *The antisymmetry of syntax*. MIT Press, Cambridge, MA.

Kluck, Marlies (2009): 'Good neighbours or far friends?: Matching and proximity effects in Dutch right node raising', *Groninger Arbeiten zur germanistischen Linguistik* **48**, 117–160.

Larson, Bradley (2011): 'Problems with a movement analysis of Right Node Raising in Tagalog', *Linguistic Inquiry* **42**(1), 163–171.

Larson, Bradley (2012): 'A dilemma with accounts of right node raising', *Linguistic Inquiry* **43**(1), 143–150.

Larson, Bradley (2014): The inherent syntactic incompleteness of right node raising. *In:* M. Kluck, D. Ott and M. de Vries, eds, *Parenthesis and ellipsis: Cross-linguistic and theoretical perspectives*. De Gruyter Mouton, pp. 247–276.

Bibliography III

Levine, Robert, Thomas Hukari and Michael Calcagno (2001): Parasitic Gaps in English: Some overlooked cases and their theoretical implications. *In:* P. Culicover and P. Postal, eds, *Parasitic Gaps*. Current Studies in Lingustics 35, MIT Press, Cambridge, pp. 181–222.

Moltmann, Friederike (1992): Coordination and Comparatives. PhD thesis, MIT, Cambridge, Mass.

Munn, Alan (1993): Topics in the syntax and semantics of coordinate structures. Doctoral dissertation, University of Maryland.

Munn, Alan (1994): 'A Minimalist Account of Reconstruction Asymmetries', *Proceedings of NELS* **24**, 397–410.

Munn, Alan (2001): Explaining Parasitic Gap restrictions. *In:* P. Culicover and P. Postal, eds, *Parasitic Gaps*. Cambridge University Press, Cambridge, pp. 369–392.

Nissenbaum, Jon (2000): Investigations of covert Phrase Movement. PhD thesis, MIT, Cambridge, Mass.

Pollard, Carl and Ivan A. Sag (1992): 'Anaphors in English and the Scope of Binding Theory', *Linguistic Inquiry* **23**(2), 261–303.

Postal, Paul M. (1993): 'Parasitic Gaps and the Across-the-Board Phenomenon', *Linguistic Inquiry* **24**(4), 735–754.

Bibliography IV

Rothert, Johannes (2022): An Experimental Investigation of the Case Matching Requirement in Polish ATB Movement and RNR. Master's thesis, University of Potsdam.

Sabbagh, Joseph (2007): 'Ordering and linearizing rightward movement', *Natural Language and Linguistic Theory* **25**, 349–401.

Sabbagh, Joseph (2008): 'Right Node Raising and extraction in Tagalog', *Linguistic Inquiry* **39**, 501–511.

Sabbagh, Joseph (2014): 'Right node raising', *Language and Linguistics Compass* **8**(1), 24–35.

Salzmann, Martin (2012): 'A derivational ellipsis approach to ATB-movement', *The Linguistic Review* **29**(3), 397–438.

Salzmann, Martin, Marta Wierzba and Doreen Georgi (2022): 'Condition C in German Ā-movement: Tackling challenges in experimental research on reconstruction', *Journal of Linguistics* pp. 1–46. doi:10.1017/S0022226722000214.

Shiraïshi, Aoi, Anne Abeillé, Barbara Hemforth and Philip Miller (2019): 'Verbal mismatch in right-node raising', *Glossa: A journal of general linguistics* **4**(1), 1–26.

Zhang, Niina Ning (2010): *Coordination in Syntax*. Cambridge University Press.