Diagnosing syntactic structure in ATB and RNR constructions: A reply to Larson (2013, 2014)*

Doreen Georgi, Andrew Murphy, Timea Szarvas, Johannes Rothert
University of Potsdam

1 Introduction

So-called 'sharing constructions' are a long-standing puzzle in syntactic theory. They involve an Ā-dependency where a single filler seems to be related to several gaps, even though there is usually a strict 1:1-relation between filler and gap. We concentrate here on sharing in coordination, viz., across-the-board (ATB) movement and Right-Node raising (RNR, Ross 1967; Postal 1974), illustrated in (1). ATB-movement involves displacement of the filler to the left edge of a clause, whereas RNR exhibits a shared constituent at the right edge of a clause. In both examples in (1), the filler (in bold) corresponds to a gap in each conjunct (as the object of both 'to buy' and 'to sell') and is thus 'shared' between them.

(1) a. **What**$_i$ should we buy $\_\__i$ and you sell $\_\__i$? ATB
b. We should buy $\_\__i$ and you should sell $\_\__i$, **imported cars from China**$_i$. RNR

A major research question is whether and how this mismatch between filler and gaps can be explained with standard tools of syntactic theory, avoiding construction-specific assumptions. Two main types of approaches have been proposed: ellipsis and multidominance; there is also evidence that suggest the co-existence of these derivations across and even within languages (the hybrid approach, see Barros & Vicente 2011; Belk *et al.* 2024). This paper is concerned with a proposal made in Larson (2012, 2013, 2014), who reconsiders the existing approaches to ATB and RNR and comes to the conclusion that none of them can be correct since they can all explain only a subset of the empirical facts from the literature. As a consequence, Larson (2013) makes a new, non-syntactic proposal: The filler in ATB and RNR constructions is extracted from the linearly closest gap site (henceforth *adjacent gap*); all other gaps (henceforth *non-adjacent gaps*) do not contain any material at all, they are completely empty in the syntax (i.e., they do not result from movement or ellipsis of some element, nor from the presence of silent material).

The goal of this paper is to test the empirical predictions of Larson's (2013) account. Based on six diagnostics (clitic doubling, agreement, global case splits, disjoint marking, antipronominal contexts, and case assignment), we provide novel data from Indo-European and non-Indo-European languages that argue against Larson's proposal. The evidence rather suggests that some element (whether overt or silent) must be underlyingly present in non-adjacent gap sites as well.

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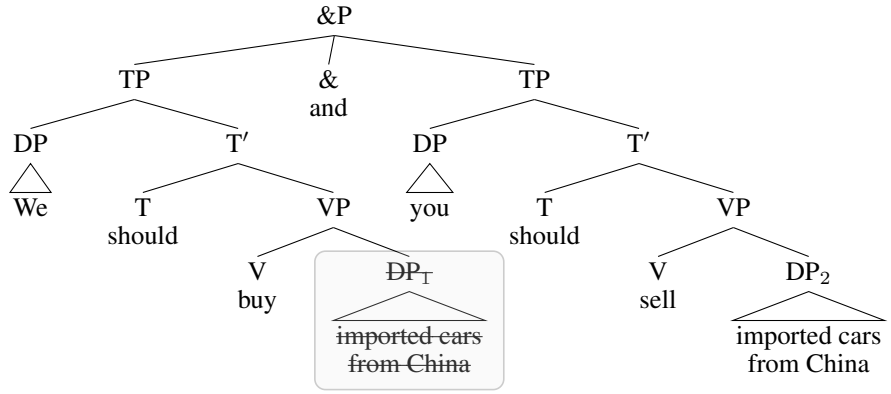
2 The syntax of ATB and RNR: state of the art

We will first describe how ellipsis and multidominance approaches to ATB and RNR resolve the 1:many relation between antecedent and gaps (for other approaches see, a.o., Abels 2004; Salzmann 2012; Hein & Murphy 2020). While ATB uncontroversially involves leftward movement of the shared XP, there is little evidence that the shared XP in RNR-constructions reaches its surface position by movement; it rather seems to be in-situ (see Citko 2011, and for a different view Sabbagh 2007).

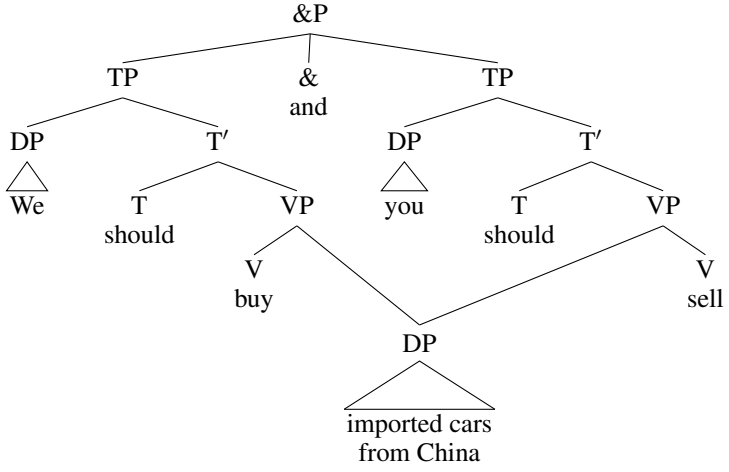
2.1 Syntactic approaches to sharing in ATB and RNR constructions

In ellipsis approaches to ATB movement, only one of the gaps is the true extraction site of the filler; the other gaps result from ellipsis of the material contained in these positions under identity with the filler (see Ha 2008, who assumes that a non-adjacent gap is the true gap, and Salzmann 2012, who takes the adjacent gap to be the true gap). Ellipsis approaches to RNR differ from those to ATB in that nothing undergoes Ā-movement, as illustrated in (2): the apparent filler (DP_2 in (2)) is in its canonical position in the rightmost conjunct (viz., this string is not displaced); non-adjacent gaps result from ellipsis of their content (DP_1 in (2)) under identity with the "filler" (see, e.g., Abels 2004; Bošković 2004; Ha 2008).

(2) Ellipsis approach to RNR:



(3) Multidominance approach to RNR:



In multidominance approaches, the 'filler' is a single XP that is linked to all conjuncts by having a mother node in each of them, see (3). The RNR string is produced if this XP is linearized at the right edge (without being extracted at all), see, e.g., McCawley (1982); Wilder (1999); de Vos & Vicente (2005); Gračanin-Yüksek (2007); Grosz (2015). ATB is the result of leftward extraction of the shared XP, which thus moves simultaneously from all conjuncts, see, e.g., Williams (1978); Citko (2005); Gračanin-Yüksek (2007); Bachrach & Katzir (2009); de Vries (2013).

2.2 Empirical evidence

Here we introduce some of the facts that have been provided in the literature to support the above approaches, though none of them can capture all data points.

Empirical evidence for ellipsis approaches to ATB and RNR constructions comes, i.a., from morphological mismatches between the conjuncts. Consider the RNR example in (4a), in which parts of the first conjunct are elided (in angled brackets):

(4) a. I didn't <pass **my** math exam>, but I'm sure that Alice will **pass her math exam** (RNR, Barros & Vicente 2011:3)
b. Who does he like and they hate? (ATB, An 2006:8)

This sentence can be interpreted such that Alice passed her own math exam, and the speaker did not pass their own math exam. There can thus be a phi-mismatch between the possessors in the conjuncts: 3sg 'her' in the 2nd conjunct, and 1sg 'my' in the elided part of the 1st conjunct. Morphological mismatches can also be observed under ATB-movement, e.g., for verb inflection. Consider (4b) from English, where the *do*-auxiliary, which has undergone ATB-head movement, agrees only with the subject of the initial conjunct (3sg), but mismatches the subject of the 2nd conjunct (3pl). Such mismatches are well-documented for VP-ellipsis, see (5) (from Barros & Vicente 2011:3), and can thus easily be explained under an ellipsis approach to ATB and RNR. However, they are unexpected under a multidominance approach because a single XP cannot have multiple surface forms.[1]

(5) Alice has slept in **her** office, but Bob will not <sleep in **his** office>.

On the other hand, there is also evidence that favors a multidominance account (at least for RNR), for example, from cumulative agreement, as exemplified in (6) (Barros & Vicente 2011:4).[2] In this example, both conjuncts have a 3sg subject (underlined), but the shared finite auxiliary must occur in its 3pl form.

(6) Alice is proud that Beatrix <has>, and Claire is happy that Diana, ✓**have/ *has** travelled to Cameroon.

Grosz (2015) claims that cumulative agreement can be explained under multidomi-

[1] They are also unexpected under movement approaches to ATB and RNR that initially postulate distinct elements in all gap sites that fuse into a single element in the course of the derivation (e.g., Williams 1978; Hein & Murphy 2020 on ATB, and Sabbagh 2007 on RNR).

[2] Interestingly, cumulative agreement is not an option in ATB constructions, see Belk *et al.* (2024:695). These authors also offer an alternative account of cumulative agreement in RNR.

nance: A single T-head is shared by all conjuncts and agrees simultaneously with the subjects of all conjuncts. It also copies back their referential indices. If T ends up with several distinct indices, this counts as plural (for morphological exponence). Under an ellipsis approach, however, cumulative agreement is mysterious since the verb in each conjunct agrees with its local subject and should thus be 3sg.

Many more diagnostics have been discussed in the literature (see, e.g., Barros & Vicente 2011), but these two phenomena already show that we are facing a dilemma: None of the approaches to ATB-movement and RNR can explain all the data, but only a subset thereof. For example, ellipsis covers morphological mismatches, but multidominance cannot; the reverse holds for cumulative agreement. This lead Barros & Vicente (2011) to argue for a hybrid approach to RNR (see Belk *et al.* 2024 for an extension), according to which the ellipsis and the multidominance derivation can co-exist in a language (each accounting for a subset of the facts), though they are in complementary distribution. Thus, an RNR string can be generated through applying either of the two mechanisms. The evidence Barros & Vicente provide for their claim comes from sentences in which characteristic phenomena of ellipsis and multidominance, respectively, are combined. Crucially, these sentences are ungrammatical, showing the complementarity of the derivational options. Consider, for example, (7), in which we attempt to combine cumulative agreement (indicative of multidominance) with a morphological mismatch (indicative of ellipsis). When cumulative agreement (viz., *have*) is used, a morphological mismatch is excluded. Thus, (7) can only have a strict reading where Beatrix negotiated Daniel's salary, but not her own (even though such a mismatch is possible in English without an additional agreement mismatch, see (4a)).

(7) Attempt: cumulative AGR + morphol. mismatch (Barros & Vicente 2011:6):
Alice is happy that Beatrix $<\quad>$, and Claire is proud that Daniel $<\quad>$,
✓HAVE/*has negotiated his salary with the manager
✓Beatrix negotiated Daniel's salary. | *Beatrix negotiated her own salary.

3 Larson's (2013) critique and the Closest Dependency Condition

Larson (2012, 2013) argues that even Barros & Vicente's (2011) hybrid approach is not sufficient to capture the data. The argument goes as follows: While their examples with conflicting characteristics (of ellipsis and multidominance as in (7)) are in fact ungrammatical, one can construct grammatical examples of the same kind. There are thus independent reasons for why their examples are out. For example, (8) is structurally parallel to (7) but does not exhibit cumulative agreement since the finite verb is a modal (which lacks a morphological sg/pl distinction). Nevertheless, a sloppy reading, according to which Iris can spell her own name (based on a phi-mismatch of the possessive pronoun in the RNRed object), is still excluded.[3]

(8) Sloppy reading also excluded without cumulative agreement:
*Alice is happy that Iris <can spell **her** name>, and Claire is proud that Daniel, **[can spell his name]**.

[3]According to Larson (2012), the sloppy reading in examples such as (4a) arise through VP-ellipsis (which licenses the required morphological mismatch) plus stylistic inversion.

Another example of a grammatical combination of allegedly incompatible prompts (according to Barros & Vicente 2011) that Larson discusses is shown in (9): In this example, a morphological mismatch on the lexical verb (*work* vs. *working*), indicative of ellipsis, is compatible with an internal reading of *different* (viz., Alice and Iris work on separate topics), which indicates multiominance (Abels 2004).

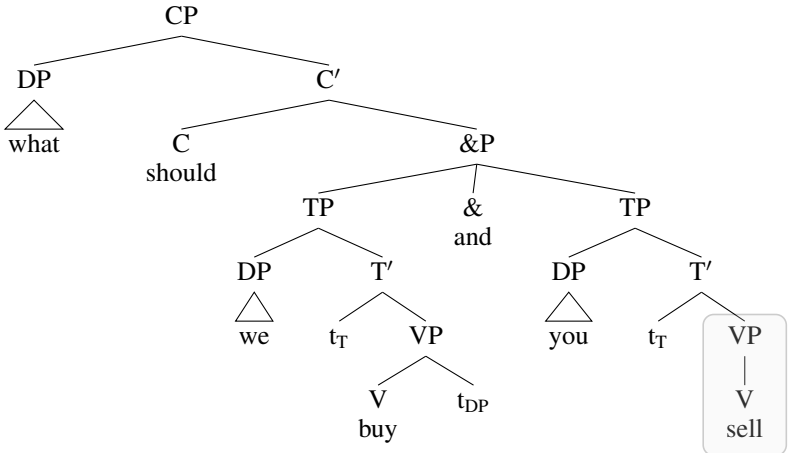
(9) Morphological mismatch + internal reading of *different*:
Alice must <work on different topics>, and Iris ought to be, working on different topics.

We are thus back to square one: None of the existing accounts (including the hybrid approach) can explain all the empirical facts; each of them only covers a subset of the data. Larson (2013) thus proposes a new approach, which differs from all previous ones in being 'non-syntactic'. It is based on the condition in (10).

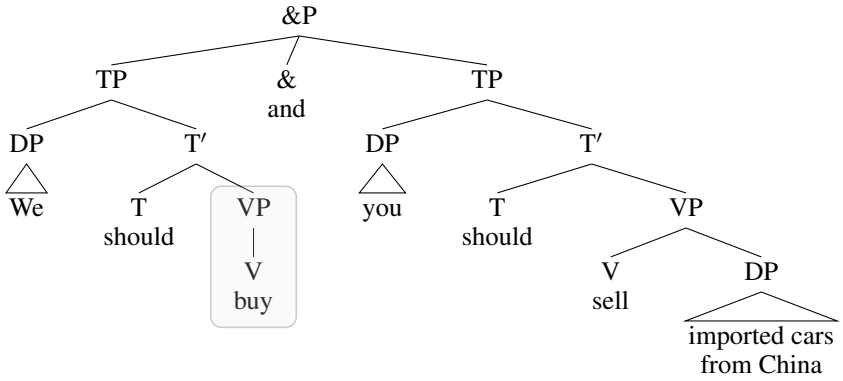
(10) **Closest dependency condition** (Larson 2013:22): In any one-to-many interpretive relation, only the dependency that holds between the two closest elements shows all the characteristics of a syntactic relation. All other dependencies are not mediated by syntax and behave differently.

According to this condition, (apparent) sharing in ATB and RNR constructions is derived as follows: There is asymmetric extraction of the filler from the adjacent gap, i.e., the gap that is linearly closest to the filler (the leftmost one in ATB, and the rightmost one in RNR). The impression of gaps in non-adjacent conjuncts arises because nothing is merged in these positions at all in the syntax, they are empty – an assumption that is in stark contrast to all previous approaches. The structures for our ATB and RNR examples sentences in (1a) and (1b) are given in (11) and (12). In both cases, the transitive verb in the conjunct that is linearly closest to the filler does not take an internal argument. The resulting violation of the predicate's c-selection requirements is tolerated in the syntax according to Larson (2013). The lack of an argument is problematic for pragmatic reasons, however. To repair this, the filler of the true gap is plugged in as the missing argument at LF and is interpreted as such; this gives rise to sharing in interpretation. See Larson (2013, 2014) for details on the interpretation of such structures (and Larson 2018 for an alternative parsing account). Here, we will only be concerned with Larson's syntactic assumptions.

(11) Larson's approach to ATB:



(12) Larson's approach to RNR:



4 Diagnosing syntactically null elements

Larson's (2013) approach makes the following empirically testable prediction:

(13) No syntactic operation can involve gap sites in non-adjacent conjuncts because they do not contain any syntactic material.

In what follows, we will show that this is wrong; syntactic interactions with non-adjacent gaps are attested, e.g., clitic doubling, agreement, global case splits, disjoint marking, antipronominal contexts, and case marking.[4]

4.1 Clitic doubling in Modern Greek

Modern Greek direct objects are optionally doubled as clitics, also under wh-movement of D-linked phrases (Anagnostopoulou 1994:174).

(14) Pja gineka (tin) sinantas kathe mera ston dromo?
which woman $\text{CL}_{\text{F.ACC}}$ meet-2SG every day in.the street
'Which woman do you meet (her) every day in the street?'

Cross-linguistically, multiple derivations have been proposed to account for clitic doubling. Under the big-DP analysis (for example, Arregi & Nevins 2012), clitics are elements of category D generated in the specifier position of certain functional layers that dominate argumental DPs. The clitic and the argument DP are linked via agreement in case and ϕ-features. Another proposal states that clitic doubling is long head movement of D^0 out of the doubled DP to v or higher (Preminger 2019). Yet a third approach argues that the doubled clitic is the spell-out of the ϕ-features copied from the doubled DP onto a probe on a functional head via Agree (Paparounas & Salzmann 2023). The exact derivation of clitic doubling is irrelevant to the argument we make.[5] Crucially, all approaches have in common that the clitic

[4]The diagnostics discussed here are by no means exhaustive; for example, Larson predicts that weak PCC-effects with agreement (found, e.g., in Swahili) should be obviated in non-adjacent conjuncts. If a shared indirect object is absent in a non-adjacent conjunct, it can't violate the PCC.

[5]Based on asymmetries with obligatory subject-verb inversion, Anagnostopoulou (1994:172ff.) argues that D-linked wh-phrases such as the one in (14) are actually base-generated. On this approach, the base-generated phrase would presumably bind a null argument position that is optionally clitic-doubled. For Larson's approach, the predictions regarding clitic doubling remain the same.

must be linked to the nominal it doubles via some syntactic relation, be it movement or agreement, or a combination of multiple operations. Larson (2013) claims that the internal argument position of the non-adjacent ATB/RNR-conjunct is syntactically absent, predicting that the clitic should only appear in the adjacent conjunct. However, both ATB movement (15) and RNR (16) are only acceptable if the clitic surfaces either in both conjuncts or neither of them. This indicates that the non-adjacent gap cannot be empty, it must contain a syntactic position linked to the clitic.

(15) Pjon anδra [(ton) agap-ai o Giannis _] ala [(ton) mis-i
which man $CL_{M.ACC}$ love-3SG the Giannis but $CL_{M.ACC}$ hate-3SG
o Vasilis _] ?
the Vasilis
'Which man does Giannis love (him) but Vasilis hate (him)?'

(16) [O Giannis (ton) agap-ai _] ala [o Vasilis (ton) mis-i
the Giannis $CL_{M.ACC}$ love-3SG but the Vasilis $CL_{M.ACC}$ hate-3SG
_] ton psilo anδra.
the tall man
'Giannis loves (him) but Vasilis hates (him), the tall man.'

4.2 Agreement in Hungarian

Subject-verb agreement in Hungarian follows two distinct patterns. Roughly, these two paradigms correlate with the definiteness of the direct object (É. Kiss 2002).[6] Transitive verbs with a definite object follow the definite paradigm (17a), while transitive verbs with an indefinite object and intransitive verbs follow the indefinite paradigm shown in (17b) and (17c).

(17) a. Péter szeret-i a cicá-t.
Peter love-3SG.DEF the cat-ACC
'Peter loves the cat.'

b. Péter szeret-ø egy cicá-t.
Peter love-3SG.INDEF a cat-ACC
'Peter loves a cat.'

c. Péter fut-ø.
Peter run-3SG.INDEF
'Peter runs.'

The verb tracks the properties of the object even if the latter is displaced (e.g., questioned). Wh-phrases differ with respect to which paradigm they trigger, see (18a) (which X) vs. (18b) (what kind of X); they do not follow a default pattern.

(18) a. Melyik cicá-t szeret-i Péter _?
which cat-ACC love-3SG.DEF Peter
'Which cat does Peter love?'

b. Milyen cicá-t szeret-ø Péter _?
what cat-ACC love-3SG.INDEF Peter
'What (kind of a) cat does Peter love?'

[6] According to Bárány (2015), agreement is determined by the ϕ-feature specification of the DO and whether it projects a DP.

In Larson's proposal, the verb in the non-adjacent ATB/RNR-conjunct is formally intransitive. It should therefore follow the indefinite agreement paradigm, as in (17a), regardless of the properties of the shared phrase. This is not what we find for RNR:

(19) a. [Péter megsímogat-t-a _] és [Mari örökbe fogad-t-a _]
Peter pet-PST-3SG.DEF and Mary adopt-PST-3SG.DEF
a cirmos cicá-k-at.
the tabby cat-PL-ACC
'Peter pet and Mary adopted the tabby cats.'

b. [Péter megsímogat-ott _] és [Mari örökbe fogad-ott
Peter pet-PST.3SG.INDEF and Mary adopt-PST.3SG.INDEF
_] valami cicá-k-at.
some cat-PL-ACC
'Peter pet and Mary adopted some cats.'

The definite shared phrase *a cirmos cicákat* 'the tabby cats' in (19a) triggers definite agreement on both verbs. In (19b), the indefinite shared phrase *valami cicákat* 'some cats' triggers indefinite agreement.[7] We observe that both verbs track the features of the shared phrase, providing evidence against the idea that there is no syntactic representation of the object in the non-adjacent conjunct. The same is observed in ATB, see (20). Each verb in the coordination tracks the features of the definite (20a) and the indefinite nominal (20b), respectively. Agreement in Hungarian thus provides strong evidence against Larson's proposal.

(20) a. A cirmos cicá-k-at [megsímogat-t-a Péter _] és [
the tabby cat-PL-ACC pet-PST-3SG.DEF Peter and
örökbe fogad-t-a Mari _].
adopt-PST-3SG.DEF Mary
'The tabby cats, Peter pet and Mary adopted.'

b. Valami cicá-k-at [megsímogat-ott Péter _] és [
some cat-PL-ACC pet-PST.3SG.INDEF Peter and
örökbe fogad-ott Mari _].
adopt-PST.3SG.INDEF Mary
'Some cats, Peter pet and Mary adopted.'

4.3 Global case split in Kashmiri

In languages with global case splits, the case marking of an argument A does not only depend on its own grammatical properties (as in local case splits) but also on those of its co-argument B (Silverstein 1976), and where A is ranked on a prominence scale compared to B. A language that exhibits such a global split is Kashmiri (Indo-Aryan). It is a V2-language with a basic SOV order; a V2 matrix clause is given in (21). V2 is derived from verb-final order by movement of the finite verb to C plus movement of an XP to SpecCP (Bhatt 1999).

[7] Hungarian pronouns are subject to pro-drop up to recoverability in the VP, meaning that singular objects and even oblique pronouns can be dropped (É. Kiss 2002). We use examples with (formally and semantically) plural objects to ensure that the gaps in the examples are not due to pro-drop.

(21) [$_{CP}$ kuur [$_{C'}$ ch-a [$_{TP}$ tsuuNTh khyv-aan]]]
girl(FEM) AUX-PRES.FEM.SG apple(MASC) eat-NPERF
'The girl eats an apple.' (Bhatt 1999:37)

A global case split is observed in non-perfective aspect in Kashimri (Wali & Koul 1997, 2006). Usually, the subject and the object of a transitive non-perfective verb are morphologically unmarked (in nominative case), and the subject triggers phi-agreement on the verb, see (21) and (22a,c). If the object (OBJ) is pronominal, however, and outranks the subject (SU) on the person scale $1 \succ 2 \succ 3$, OBJ surfaces in its dative form (due to its homophony with the case marker for indirect objects); the subject remains unmarked, see (22b,d) (Wali & Koul 1997:155ff.).

(22) a. bɨ chu-s-ath **tsɨ** parɨnaːvaːn
I.NOM am-1SG-2SG you.NOM teaching
'I am teaching you.' *1SU>2OBJ*

b. tsɨ chu-kh **me** parɨnaːvaːn
you are-2SG me.DAT teaching
'You are teaching me.' *2SU>1OBJ*

c. tsɨ chi-h-an **su** parɨnaːvaːn
you are-2SG-3SG he.NOM teaching
'You are teaching him.' *2SU>3OBJ*

d. su chu-y **tse** parɨnaːvaːn
he is-2SG you.DAT teaching
'He is teaching you.' *3SU>2OBJ*

Our test scenario for Larson's approach involves ATB-movement of a 3rd person subject to SpecCP in a V2-clause. According to Larson, this subject DP originates in the adjacent conjunct, whereas no subject DP is merged in the non-adjacent conjunct. Now, if the adjacent conjunct contains a 3rd person (non-pronominal) direct object, and the non-adjacent one a local person direct object, Larson predicts that the local person object cannot surface in dative case, but only in the nominative. This is because the dative indicates a person scale interaction between the direct object and its co-argument subject. Since the conjunct in question does not have a syntactic subject on Larson's assumptions, the object has nothing to interact with; therefore, the object should not surface in the dative. This prediction is not borne out, however (Danish Hamid Dar, p.c.), see (23): The local person object in the non-adjacent conjunct must be dative.

(23) a. [Aslam chu kitaːb paraːn] tɨ [Ram chu
Aslam be.3SG.MASC book reading and Ram be.3SG.MASC
me parɨnaːvaːn]
me.DAT teaching
'Aslam is reading a book and Ram is teaching me.'

b. Aslam [_ chu kitaːb paraːn] tɨ [_ chu
Aslam be.3SG.M book reading and be.3SG.M
me/*bɨ parɨnaːvaːn]
me.DAT/*NOM teaching
'Aslam is reading a book and is teaching me.'

4.4 Disjoint marking in Dagbani

Dagbani (Mabia: Ghana) shows a suffix alternation in the perfective that is sensitive to the transitivity of the verb (Issah 2015). A transitive verb in the perfective may not occur with the suffix *-yá* (24a), while an intransitive verb must take *-yá* (24b). Following Issah (2015), we will refer to this as the 'disjoint suffix'.

(24) a. Ò nyú**(-*yá)** kóm
3SG drink.PFV(-*YA) water
'He drank water.' (*conjoint*)

b. Ò nyú**-yá**
3SG drink.PFV-YA
'He drank.' (*disjoint*)

The disjoint suffix is still found with intransitive verbs, even if there is a clause-final adverb (25). This shows that the alternation is not about clause-finality. In this way, it differs from conjoint/disjoint marking in other languages (see van der Wal 2017).

(25) Adam sa tum**-yá** sɔhila
Adam PST work.PFV-YA yesterday
'Adam worked yesterday.' (*disjoint*)

Crucially, the absence of *yá* signals the presence of *syntactic* rather than phonological material following the verb. This is evident from (26), where the object is a (silent) trace created by wh-extraction and *yá* must still be absent.

(26) Bo ka Adam kɔrigi-**(*yá)** _ ?
what FOC Adam slaughter.PFV-(*YA)
'What did Adam slaughter?' (Aremu *et al.* 2023)

At this juncture, the predictions of Larson's theory are clear. If ATB and RNR constructions do not contain syntactic representations of the filler in non-adjacent conjuncts, then a transitive verb whose object has been displaced should count as syntactically intransitive in that conjunct. In such cases, we would expect to exceptionally find the disjoint suffix *-yá* on a transitive verb. The data we have elicited do not bear out this prediction, however (Fawziyya Issah, p.c.). As (27) shows, the transitive verb 'eat' in the second conjunct may not take the disjoint suffix. If this gap in the second conjunct were syntactically absent, however, then this is precisely what we would expect. RNR constructions show the same pattern, see (28): The transitive verb in the non-adjacent conjunct ('buy') may not take the disjoint suffix *-yá*.[8] Both examples converge on the same conclusion, namely that the non-adjacent gap in ATB and RNR constructions is syntactically present. If it were genuinely syntactically intransitive, as Larson claims, disjoint marking should reflect this.

(27) *ATB movement in Dagbani*
Bo ka [Abu da-(*yá) _] ka [Dahamani di-**(*yá)** _] ?
what FOC Abu buy.PFV(-YA) and Dahamani eat.PFV(-YA)
'What did Abu buy and Dahamani eat?'

[8] For reasons that are currently not so clear to us, our consultant needed the subject in the first conjunct to be focus-marked in an RNR construction. This may have to do with the general contrast requirement in sharing constructions, but more work on this construction is needed.

(28) *Right Node Raising in Dagbani*

[Abu n da-**(*yá)** __] ka [Dahamani di-(*yá) __]
Abu FOC buy.PFV-(YA) and Dahamani eat.PFV-(YA)
[$_{DP}$ bindirigu maa]
food DEF

'ABU bought, and Dahamani ate the food.'

4.5 Antipronominal contexts in English

Another test we can use for the presence of syntactic material in the non-adjacent conjunct comes from so-called *antipronominal contexts* in English. Postal (1994, 1998) identified a class of constructions in English that disallow the pronoun *it* in certain positions, hence the name 'antipronominal'. In addition, the gaps associated with certain kinds of extraction are also excluded from these positions.

Two relevant contexts to discuss here are 'change-of-colour' contexts (29), where the verb takes a small clause like argument with a predicate corresponding to a colour term, and naming contexts (30), which have a similar structure (see Matushansky 2008). As the (a)-examples show, these constructions do not allow the pronoun *it*. Postal then distinguishes between two types of extraction. The first type is 'A-extractions' like wh-movement, whose gaps are perfectly compatible with an antipronominal position (labelled AP here). The (b)-examples illustrate this. This contrasts with the second type, 'B-extractions' such as topicalization, which may not generate gaps in antipronominal contexts.

(29) *Change-of-colour contexts*

a. She painted the walls {green/*it}
b. What color did she paint the walls $\_\_{}_{AP}$? ('A-extraction')
c. *Green, she painted the walls $\_\_{}_{AP}$ ('B-extraction')

(30) *Naming contexts*

a. They named the dog {Alex, *it}
b. What did they name the dog $\_\_{}_{AP}$? ('A-extraction')
c. *Alexander, they named the dog $\_\_{}_{AP}$. ('B-extraction')

We will not concern ourselves with the precise analysis of such antipronominality effects (for some recent discussion, see Stanton 2016, 2017; Poole 2017, 2024) and instead simply use them as a diagnostic for movement. The prediction for ATB-extraction under Larson's account is clear: If there is no syntactic representation at the gap site in the second conjunct, then we should not find any antipronominal effects there (since there is no element there to trigger them).[9] As the examples in (31) show, the prediction of Larson's account is not borne out for change-of-colour

[9]Note that we cannot test RNR because rightward movement, like wh-movement, is an 'A-extraction' that does not exhibit antipronominal effects:

(i) a. Frank named his daughter __ against everyone's advice [Moon Unit Zappa]
b. My parents painted my room __ without consulting me first [a horrible shade of green]

contexts. Example (31a) shows that antipronominal contexts are in principle compatible with an ATB-construction. This example contains A-extraction, so the lack of antipronominal effects is expected. In (31b), we have ATB-topicalization, which is a type of B-extraction and therefore shows sensitivity to antipronominal contexts. The ungrammaticality of this example shows that antipronominal effects are still found in the non-adjacent conjunct under ATB-topicalization. This is not what Larson's analysis predicts. Finally, if we change the gap site to a non-antipronominal context, then ATB-topicalization is licit (31c).

(31) *Change-of-colour contexts*

a. What color does she [hate __] and yet [still painted her walls $\underline{\quad}_{\text{AP}}$] ?

b. *(The color) Green, she [hates __] and yet [still painted her walls $\underline{\quad}_{\text{AP}}$]

c. (The color) Green, she [hates __] and yet [still chose $\underline{\quad}$ for her walls]

Naming contexts reinforce this picture. Wh-movement applying across-the-board is acceptable if the second conjunct contains an antipronominal gap site (32a), while ATB-topicalization is not (32b). Again, the effect is lost if the second gap is not antipronominal (32c). Antipronominal contexts therefore show that there is a gap in the non-adjacent conjunct of ATB, contra the predictions of Larson (2013).

(32) *Naming contexts*

a. What did she
[say __ was a stupid name] and yet [still named her dog $\underline{\quad}_{\text{AP}}$] ?

b. *Alexander, she
[said __ was a stupid name] and yet [still named her dog $\underline{\quad}_{\text{AP}}$]

c. Alexander, she
[said __ was a stupid name] and yet [secretly quite liked $\underline{\quad}$]

4.6 Genitive of quantification in Polish

The diagnostics we have used so far tested for the presence of an extracted phrase in the non-adjacent conjunct that is dependent on some other element in that conjunct (e.g. for agreement, case, etc.). It is also possible that the dependency can go in the opposite direction, where an element in the non-adjacent conjunct is dependent on the extracted element. One place to look for this is with Left-Branch Extraction in certain Slavic languages. Some quantifiers in Polish trigger the so-called *genitive of quantification* on the head noun (see e.g. Lyskawa 2020). The object 'books' in (33a) surfaces in accusative case. When the object is modified by the quantifier 'many', the noun must be in the genitive (33b).

(33) a. Asia przeczytała [$_{\text{NP}}$ książk-**i**]
Asia read.PST.3SG.F book-**PL.ACC**
'Asia read books.'

b. Asia przeczytała [$_{\text{NP}}$ dużo książek-**ø** / *książk-**i**]
Asia read.PST.3SG.F many book-**PL.GEN** book-**PL.ACC**
'Asia read many books.'

A standard view of genitive of quantification is that the quantifier itself is responsible for assigning genitive case. What is more, a subset of Slavic languages allow for extraction of adnominal modifiers such as quantifiers (*Left-Branch Extraction*; Ross 1967). As can be seen in (34), we can extract a quantifier from the noun phrase and, when we do, genitive of quantification on the noun is preserved.

(34) Dużo (to) Asia przeczytała [$_{NP}$ _ książek-**ø** / *książk-**i**]
many (TO) Asia read.PST.3SG.F book-**PL.GEN** book-**PL.ACC**
'Asia read many books.'

Larson's theory predicts that ATB-movement of a quantifier should lead to the absence of genitive of quantification in the second conjunct only. If there is no syntactic representation of the filler in non-adjacent conjuncts, then there should be no possible assigner of genitive case in that conjunct. As (35) shows, this prediction is again not borne out (Joanna Zaleska, p.c.). When Left-Branch Extraction applies across-the-board, we must have genitive of quantification in the second conjunct.

(35) Dużo (to) [Asia przeczytała [$_{NP}$ _ książek-Ø]] a [Hania
many (TO) Asia read.PST.3SG.F book-GEN.PL and Hania
napisała [$_{NP}$ _ wiersz-**y/*-e**]]
write.PST.3SG.F poem-**GEN.PL/*-ACC.PL**
'Asia read many books and Hania wrote many poems.'

5 Conclusion

We provided evidence from six diagnostics against the non-syntactic approach to sharing in ATB and RNR constructions proposed in Larson (2013, 2014), according to which (apparent) gap sites in non-adjacent conjuncts are syntactically empty. Given that various syntactic operations can target these positions, there must thus be (potentially silent) syntactic material merged in these positions, as postulated in all previous approaches to sharing constructions. The novel data presented here do not allow us to draw conclusions about the nature of this material (trace, ellipsis site, empty pro, etc.), however. In any case, we are still in need of an approach that captures all the empirical facts (and postulates syntactic material in all gap sites).

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