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2 become 1: Case mismatches and syncretism in ATB-dependencies

Johannes Hein & Andrew Murphy
Universität Leipzig
{johannes.hein, andrew.murphy}@uni-leipzig.de

"Tonight is the night, when two become one …"
— *The Spice Girls*

Claim: Syncretism has been reported to have the peculiar property of repairing violations of syntactic constraints (e.g. with *agreement*; Schütze 2003, Bhatt & Walkow 2014, *case matching* Merchant 2001, Citko 2005). This paper puts forward the view that in one well-reported instance of syncretism repair of case-matching violations with ATB-movement, this repair follows directly from the nature of ATB movement. We pursue what has proven to be a marginal approach in the ATB literature; ATB movement involves the actual fusion of two syntactic objects, resulting in a single new object. The repair effect of syncretism emerges from the nature of this fusion operation, i.e. intersection.

1 Introduction

- It is a well-known fact that languages permit exceptions to the Coordinate Structure Constraint (Ross 1967) if movement occurs from each conjunct simultaneously ('across-the-board' or ATB-movement):

(1) a. *What does Melanie like ___ and Geri hate anchovies?
b. *What does Melanie like waffles and Geri hate ___?
c. What does Melanie like ___ and Geri hate ___?

- In languages with rich case morphology, it has been noted that ATB movement is subject to a case-matching requirement:

Polish:

(2) Kogo Janek widział ___ACC a Maria lubiła ___ACC ?
who.ACC John saw and Mary liked
'Who did John see and Mary like?' (Borsley 1983:170)

(3) *Czego/*Co Jan nienawidzi ___GEN a Maria lubi ___ACC?
what.GEN/what.ACC Jan hates and Maria likes
'What does Jan hate and Maria like?' (Citko 2005:487)

(4) Wen hat der Hans (in der Stadt) ___ACC getroffen und ___ACC
who.ACC has the Hans in the city met and
nach dem besten Album der Spice Girls gefragt?
after the best album of.the Spice Girls asked
'Who did Hans meet (in the city) and ask what the best Spice Girls album was?'

(5) *Wen / *wem hat der Hans (in der Stadt) ___ACC getroffen
who.ACC who.DAT has the Hans in the city met
und ___DAT sein Lieblingslied von den Spice Girls vorgesungen?
and his favourite.song of the Spice Girls sung

'Who did Hans meet (in the city) and sing his favourite Spice Girls song to?'

- This picture is complicated, however, by the fact that identity of form (syncretism) repairs otherwise illicit case-mismatches:

(6) Kogo Janek lubi ___ACC a Jerzy nienawidzi ___GEN ?
who.ACC/GEN John likes and George hates
'Who does John like and George hate?' (*Polish*; Borsley 1983:170)

(7) Was für Frauen hat der Hans (in der Stadt)
what.ACC/DAT for women.ACC/DAT has the Hans in the city
___ACC getroffen und (mit ihren Einkäufen) ___DAT geholfen?
met and with their shopping helped
'What women did Hans meet (in the city) and help (with their shopping)?'
(*German*[1]; Hartmann et al. 2016)

Relative clauses:

(8) Dziewczyna, której Janek nigdy przedtem nie widział
girl who.GEN/DAT John never before NEG saw
___GEN a dzisiaj pożyczył ___DAT pieniędzy
and today lent money
'The girl who John had never seen before and today lent some money'
(*Polish*; Dyła 1984:704)

(9) devuška, kotoroj ja byl uvlečën ___INST i
girl who.INST/DAT I was carried-away-with and
daval den'gi ___DAT
gave money
'The girl who I was carried away with and gave money to'
(*Russian*; Franks 1995:63)

Topicalization:

(10) a. Jego Janek lubi ___ACC a Jerzy nienawidzi
him.ACC/GEN John likes and George hates
___GEN
'Him, John likes and George hates.'
b. *Ją Janek lubi ___ACC a Jerzy nienawidzi ___GEN
her.ACC Janek likes and George hates
'Her, John likes and George hates.' (Dyła 1984:703)

- On the face of it, these facts pose a challenge to Late Insertion approaches to morphology such Distributed Morphology (Halle & Marantz 1993), since it seems that information about the morpho-phonological form can license a syntactic dependency.

- *Processing/PF view:* We could claim that a structure is ungrammatical if the filler does not match each of the gaps (cf. Vicente 2015).

- If case matching is a PF requirement, how much information about case/case assigning positions does PF have/need?

(11) *The problem of 'domain leakage'*:
a. If Case Matching is a PF constraint, then PF needs to have access to syntax-specific information such as the case properties of verbs or 'gaps'.
b. If Case Matching is a syntactic constraint, then it must be sensitive to the phonological form of the moving elements; a view incompatible with Late Insertion approaches to morphology.

- We will show that it is possible to develop an account of ATB movement

[1]Note: Hartmann et al. (2016) show experimental evidence that case mismatches under ATB topicalization in German is not repaired by syncretism. However, they admit that ATB wh-movement examples such as (i) seem perfectly acceptable, in contrast to the sentences they tested.

that does not suffer from these problems. Rather than have syntax or phonology influence each other, we will assume that both the phonological aspect of ATB (syncretism) and the syntactic aspect (one-to-many relation) share a common denominator; *intersection of feature sets*.

2 Previous accounts

- It is possible to identify two main kinds of approaches in the ATB literature:

☞ *Asymmetric approaches*: The moved element is extracted from only one conjunct.

☞ *Symmetric approaches*: The moved element is extracted from both conjuncts.

- We will briefly review some fo those approaches and see how/if they can cope with the syncretism facts.

2.1 Asymmetric approaches

- What we might characterize as 'asymmetrical' approaches are those in which only one of the ATB gaps actually corresponds to an extraction. These approaches instead assume that the other gap is illusory and derived either by null operator movement (Munn 1992, 1993, 1999) or ellipsis (Ha 2008; Salzmann 2012*a*).

(12) *Parasitic gap approach to ATB*:
What$_1$ does [$_{\&P}$ [$_{TP}$ Melanie like t$_1$] and [$_{TP}$ Op$_2$ Emma hate t$_2$]] ?

(13) *Ellipsis approach to ATB*:

a. RNR + ATB (Ha 2008):
What$_1$ does [$_{\&P}$ [$_{TP}$ Melanie like <what>] and [$_{TP}$ Emma hate t$_1$]] ?

b. Derivational Ellipsis (Salzmann 2012*a*):
What$_1$ does [$_{\&P}$ [$_{TP}$ Melanie like t$_1$] and$_{[E_{ATB}]}$ [$_{TP}$ Emma hate <what>]] ?

Note: Such asymmetric approaches are mainly motivated by the fact that some reconstruction asymmetries seem to be asymmetric, i.e. a number of diagnostics seem to only show reconstruction to the first conjunct. However, this is only true for some diagnostics (Principle A, Principle C and Weak Crossover), whereas Strong Crossover, variable binding, idiom reconstruction and scope reconstruction behave symmetrically (see Citko 2005; Salzmann 2012*a*,*b* for discussion). We take this as indicative of the fact that linear promiximity seems to play a role with the former class of phenomena.

- Also ellipsis-based accounts can be motivated on the basis of morphological mismatches under ellipsis (Salzmann 2012*a*:405, fn.6):

(14) [$_{vP}$ Ein Buch wegwerfen] würde Maria nie ___, aber hat
a book throw.away.INF would Mary never but has
Hans schon oft ___.
Hans already often
Lit. 'Throw away a book, Mary never would, but John already often has.'

- A putative problem for this account are so-called *Single Identity Readings* (cf. Citko 2005):

(15) Who does Emma love ___ and Geri hate ___?
a. Britney Spears
b. #Emma loves Britney Spears and Geri hates Ricky Martin

2.2 Symmetric approaches

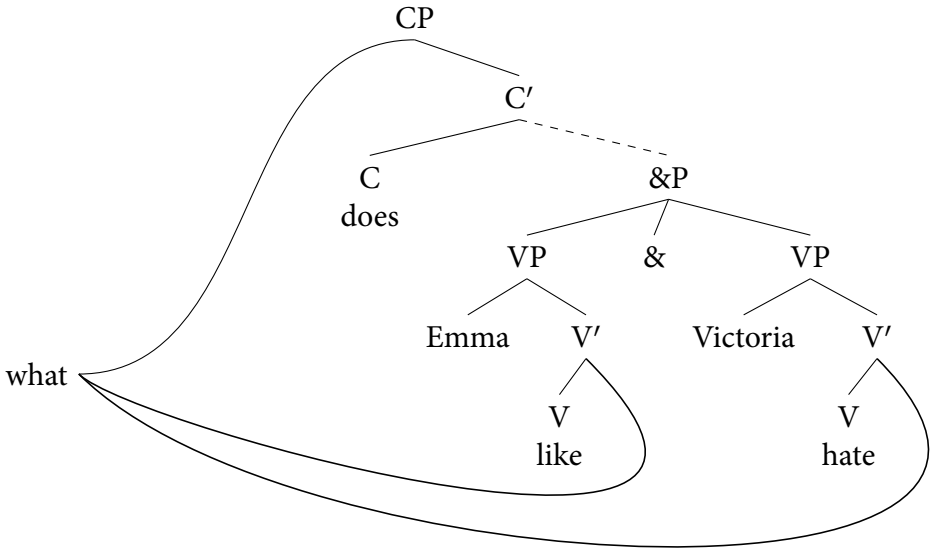
- Symmetric approaches come in two main kinds:

☞ Multidominance accounts: No movement: extracted element is in (at least) three positions simultaneously.

☞ Genuine ATB extraction: Extraction takes place from each conjunct.

- Multidominance accounts of ATB movement (e.g. Citko 2005, 2011; Bachrach & Katzir 2009; Gračanin-Yüksek 2007, 2013; de Vries 2013) assume that the ATB-extracted element is present in all its positions simultaneously:

(16)



- This account derives the *Single Identity Reading* in a straightforward way.
- However, this approach will ultimately have problems with syncretism as we show in the following section.
- Furthermore, the multidominance view will struggle to account for cases of resumptive pronouns in ATB.
- Akan (Niger-Congo: Ghana) has obligatory resumptions with animate wh-phrases (Saah 1988; Korsah & Murphy 2015). This also holds for ATB wh-movement:

(17) [$_{CP}$ Hwan$_1$ na [$_{\&P}$ [$_{TP}$ Kofi pɛ no$_1$] nanso [$_{TP}$ Amma tan no$_1$
who FOC Kofi like 3SG but Ama hate 3SG
] no] ?
CD
'Who does Kofi like (him) but Ama hate (him)?'
(*Akan*; Sampson Korsah, p.c.)

- Salzmann (2012*b*) also provides a similar pattern from Zurich German:

(18) de Lehrer$_1$, wo [$_{\&P}$ [$_{TP}$ de Hans von em$_1$ schwärmt] und [$_{TP}$
the teacher C the Hans of him is.excited and
d Susi über en$_1$ fluecht]]
the Susi about him swears
'The teacher that Hans is excited about (him) and Susi hates swears about (him)'
(*Zurich German*; Salzmann 2012*b*:356)

- If the extracted element is present in its base positions, it is unclear how one could realize resumptive pronouns there.
- More traditional approaches involving 'genuine extraction' (Ross 1967; Postal 1974; Williams 1978; Blümel 2014) assume that there is genuine extraction from two positions.

(19) *Genuine ATB Extraction*:
What$_1$ does [$_{\&P}$ [$_{TP}$ Melanie like t$_1$] and [$_{TP}$ Emma hate t$_1$]] ?

- These accounts can also derive the *Single Identity Reading*, but the fact that CSC can be violated in this way still remains unexplained (NB: a problem for everyone).
- However, these approaches have to stipulate the matching effect (i.e. ATB movement is licensed by form).

Note: Nunes' (2004) 'sideward movement' account of ATB movement also counts as a asymmetrical approach since the wh-phrase is extracted from each conjunct, albeit not simultaneously. However, when it comes to case matching effects, this approach suffers from problems pertaining to cyclicity and the Activity Condition (see Salzmann 2012*a*:401f. for critical discussion).

3 Tackling the syncretism problem

3.1 Asymmetric approaches

- In general, asymmetric approaches struggle to capture the repair effect of syncretism in an adequate.
- In parasitic gap approaches, there is no real link between the moved item and the second gap – it is therefore unclear how to implement a case matching constraint that needs to make reference to both.
- Ellipsis accounts can appeal to the fact that ellipsis is known to allow to morphological mismatches (e.g. Sag 1976; Merchant 2001, 2013). Then it is unclear why syncretism should matter, if ellipsis licenses mismatches, then we would expect there not to be any case matching at all.

3.2 Symmetric approaches

- In symmetric approaches, the wh-phrase is linked to both case assigning positions in some relevant sense.
- ATB extraction accounts are forced to simply state the case matching requirement rather than derive it:

(20) A movement chain must
   a. comprise non-distinct members (i.e. they must be featurally identical)
   b. be headed by a syntactic object which receives an exponent compatible with all lower chain members.

(Blümel 2014:30)

- On the other hand, multidominance accounts have the wh-phrase be in multiple case assigning positions simultaneously. On an intuitive level, they claim that the form of the wh-phrase must match each of the verbs.
- These accounts claim that they can derive the syncretism effect via underspecification, but as the following discussion will show, implementing this idea is far from trivial.

3.2.1 Citko (2005)

- She proposes a symmetric approach, the moved item is merged in parallel in the two positions (multidominance) and receives case from both verbs.
- Lexical items are equipped with phonological information only post-syntactically (i.e. late insertion, DM).
- In the event of mismatching case requirements, if there is a vocabulary item that is compatible with both case specification (i.e. by means of underspecification), vocabulary insertion proceeds unimpededly resulting in a licit output.
- If there is no such vocabulary item the derivation crashes yielding an ungrammatical output.

The problem

- Consider Citko's Polish examples in (21)

(21) a. *Czego / *Co Jan nienawidzi ___GEN a Maria lubi
what.GEN what.ACC Jan hates and Maria likes
___ACC?

'What does Jan hate and Maria like?'

b. Kogo Jan nienawidzi ___GEN a Maria lubi ___ACC?
who.GEN/ACC Jan hates and Maria likes
'Who does Jan hate and Maria like?' (Citko 2005:487)

- Taking her analysis at face value, the wh-item receives both ACC and GEN as values of the feature Case, i.e. Case: [acc,gen]. There are two problems with this:
  - *kogo* would have to be specified for Case: [acc,gen] rendering it unfit for Case: [acc] and Case: [gen] environments (see also Asarina 2011)
  - Both /co/↔[Case:acc] and /czego/↔[Case:gen] are compatible with Case: [acc,gen] which should give rise to optionality rather than a crash (see also Asarina 2011; Thomas 2015).

- Making her analysis more explicit, one might decompose ACC and GEN into smaller features: ACC: [+α,+β]; GEN: [+α,−β]. This would solve the first problem: By specifying *kogo* for [+α] only it would be compatible with ACC[+α,+β], GEN[+α,−β], and a situation where a terminal bears both ACC and GEN, i.e. [+α,+β,+α,−β].[2]

- The second problem, however, remains. Even if we leave aside the conceptual question of how a terminal can bear +β and −β simultaneously, we'd still expect that either /co/↔[+α,+β] or /czego/↔[+α,−β] would get inserted into [+α,+β,+α,−β] in accordance with the Subset Principle (22) (Halle 1997).

[2]In this kind of analysis, the terminal might not be fissioned (Noyer 1997). If it were, one would expect *kogo* to be inserted twice due to the presence of two [+α].

(22) Subset Principle (Halle 1997; our emphasis)
The phonological exponent of a Vocabulary Item is inserted into a morpheme in the terminal string if the item matches *all or a subset of the grammatical features specified in the terminal morpheme*. Insertion does not take place if the Vocabulary item contains features not present in the morpheme. Where several Vocabulary items meet the conditions for insertion, the item matching the greatest number of features specified in the terminal morpheme must be chosen.

- In order to get the derivation to crash, one would have to introduce a further condition on vocabulary insertion which demands that features on the VI are not in conflict with features on the terminal. (Which is basically only ever the case in ATB-dependencies)

- Alternatively, one could impose a ban against conflicting features on a terminal itself which could trigger a repair that deletes both conflicting features. This, however, seems implausible since deletion of only one of the conflicting features would be sufficient for resolving the conflict.[3]

3.2.2 Asarina (2011)

- Asarina (2011) in her work on RNR presents a different way of dealing with multiple values for one and the same feature on a single terminal.

[3]Thomas (2015) actually pursues this alternative strategy. She proposes a rule of *Case Unification* defined in (i).

(i) *Case Unification*:
Every DP can only have one case, i.e. bear maximally one specification of each case subfeature. If this number is exceeded, the subfeatures must be reduced by:
  a. deleting all but one subfeature of a kind if they coincide in value
  or
  b. deleting all subfeatures of a kind if instances with differing values are present.

In this rule though, the different treatment of subfeatures with equal values as opposed to those with different values seems to be an *ad hoc* stipulation designed to give exactly the right results.

- When an element with a given feature matrix is assigned a second, different value of an already valued feature F, the whole feature matrix is duplicated to accomodate that value. The element then has two feature matrices that differ only in the value for F.
- As long as both matrices can be spelled out by the same rule (i.e. one that does not make reference to the distinct feature and is thus underspecified), the result is grammatical.

Problems

- In effect, she ties insertion of a VI into a terminal to a potential insertion of the same VI in the other feature matrix on the terminal even though that second insertion never actually happens. Roughly paraphrased: A VI may be inserted into a terminal with two feature matrices as long as it remains unclear which of the two it actually realises.
- All this leads back to the additional ban against feature clash on vocabulary insertion: A VI may only be inserted into a terminal if it is not in conflict with any features on that terminal (even if they are in a different feature matrix).
- Her proposal is also incompatible with a view of syntactic objects as bundles of features where by duplicating an element's feature matrix one duplicates the actual element itself.

4 Proposal

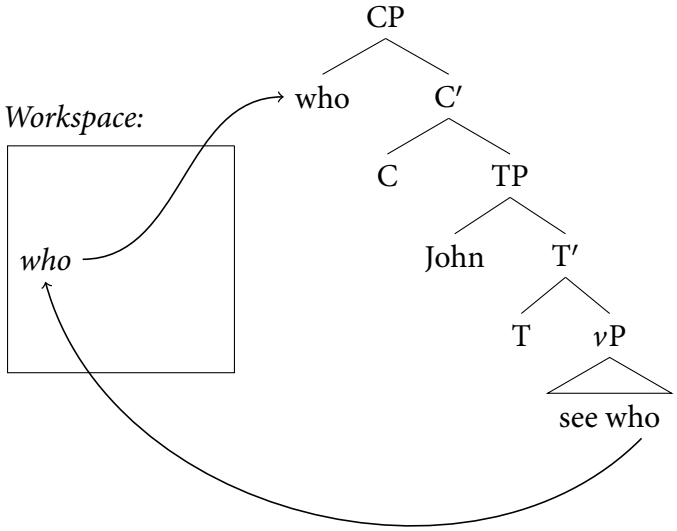
- We propose that ATB involves genuine extraction from each complement, resulting in a forked chain (Blümel 2014).
- However, we suggest that movement (Internal Merge) is actually decomposed into two steps: movement into an external workspace (cf. Sideward Movement, Remove) and External Merge at the root.
- Furthermore, in ATB, movement of two separate items to the workspace takes place in parallel.

4.1 Assumptions

4.1.1 Move = Sideward Movement + External Merge

- We assume that movement (Internal Merge) actually comprises two steps:
  1. Movement to an external workspace (cf. Müller 2015; Heck 2015)
  2. External Merge
- Thus, the derivation of an ordinary wh-movement case such as (23) involves these two steps.

(23) Who did John see?



- Abstracting away from phases, each movement step first involves removing the item and placing it in an external workspace (cf. Stroik's 2009 *WorkBench*).

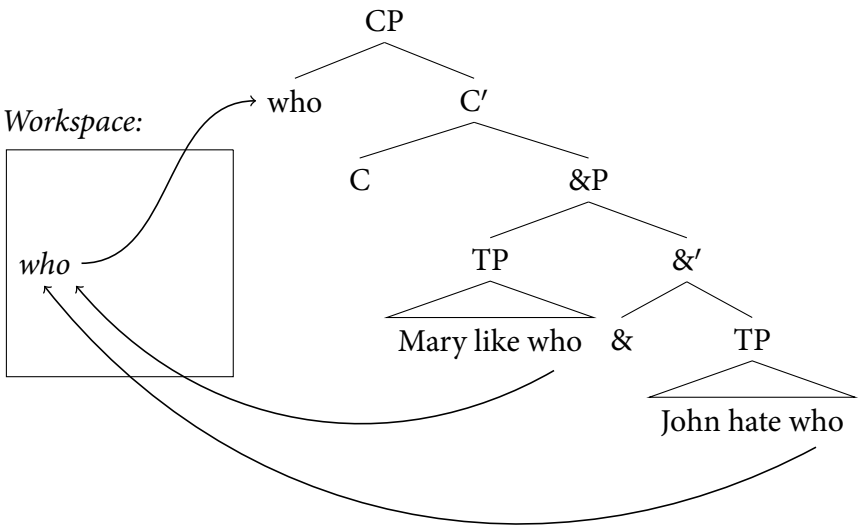
4.1.2 Parallel Movement out of Coordinate Structures

- We assume that it is possible for movement to proceed from two positions in parallel (cf. Chomsky 2008; Bošković 2012 for the same idea from the opposite perspective).
- However, this is restricted to coordinate structures for the following reason. If we take a representation view of the CSC as in Weisser (2015) (24), then the only way to move and not violate the CSC is to move in parallel.

(24) *Coordinate Structure Constraint*:
a. *[α … [$_{\&P}$ [$_{A}$ t_{α}] & [$_{B}$ β]]]
b. *[β … [$_{\&P}$ [$_{A}$ α] & [$_{B}$ t_{β}]]]

- Thus, if a probe can target two goals that count as equidistant in a coordinate structure, then it will move both of them to the workspace.

(25)



- What happens after both of them move to the workspace is explained in the next section.
- The notion of equidistance should also explanation the observation that ATB movement is only possible from 'parallel positions' (Franks 1993; Kasai 2004):

(26) I know a man who Bill saw t_1 and t_2 likes Mary.
(Williams 1978:34)

4.1.3 Feature set intersection

- By assumption, the external workspace can only hold one syntactic object.
- A syntactic object is assumed to be a set of (morpho)syntactic feature-value pairs.
- In the case of ATB-movement, a conflict arises since two items have to move to the external workspace in parallel in order to get externally merged with the root node again later.
- The two items thus have to become one somehow. There are two ways to achieve this:
  ❶ Feature set unification
  ❷ Feature set intersection
- Option ❶ results in an item that bears conflicting feature specifications. This item would encounter the same problems that Citko's account suffers from.
- We thus propose that feature set intersection takes place instead. The feature set of the newly formed item thus consist of only those feature-value pairs that were present on both moving items.

4.2 Deriving ATB movement

- First, we regard standard case features in Polish as consisting of the smaller binary subfeatures [±subj(ect)], [±gov(erned)], and [±obl(ique)] (Jakob-

son 1962; Bierwisch 1967; Wiese 1999; Alexiadou & Müller 2008) in the following way:

(27) *Polish case decomposition and wh-items*:

Case	Decomposition	wh_{anim}	wh_{inan}
NOM	[+subj −gov −obl]	*kto*	***co***
ACC	[−subj +gov −obl]	***kogo***	***co***
GEN	[+subj +gov +obl]	***kogo***	*czego*
DAT	[−subj −gov −obl]	*komu*	*czemu*
INS	[+subj −gov +obl]	***kim***	***czym***
LOC	[−subj −gov +obl]	***kim***	***czym***

- Syncretic wh-items must then be specified for (a subset of) only those features which are shared by the cases that the syncretic wh-item realises. That means it must realise the intersection of both cases' feature sets. We assume that the Polish wh-items are the following:

(28) *VIs for Polish wh-elements*:

Animate series

DAT /komu/ ↔ [−subj −gov −obl +anim]
NOM /kto/ ↔ [+subj −gov −obl +anim]
INS,LOC /kim/ ↔ [−gov +obl +anim]
ACC,GEN /kogo/ ↔ [+gov +anim]

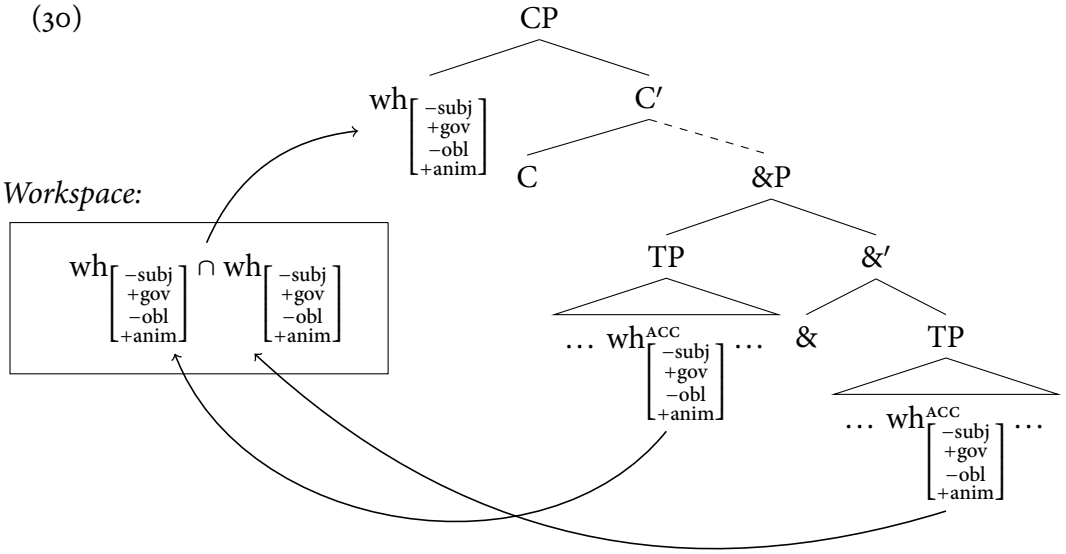
Inanimate series

DAT /czemu/ ↔ [−subj −gov −obl −anim]
GEN /czego/ ↔ [+subj +gov +obl −anim]
INS,LOC /czym/ ↔ [−gov +obl −anim]
NOM,ACC /co/ ↔ [−obl −anim]

4.2.1 ATB with matching case

(29) Kogo Janek widział $\_\__{ACC}$ a Maria lubiła $\_\__{ACC}$?
who.ACC John saw and Mary liked
'Who did John see and Mary like?' (Borsley 1983:170)

(30)

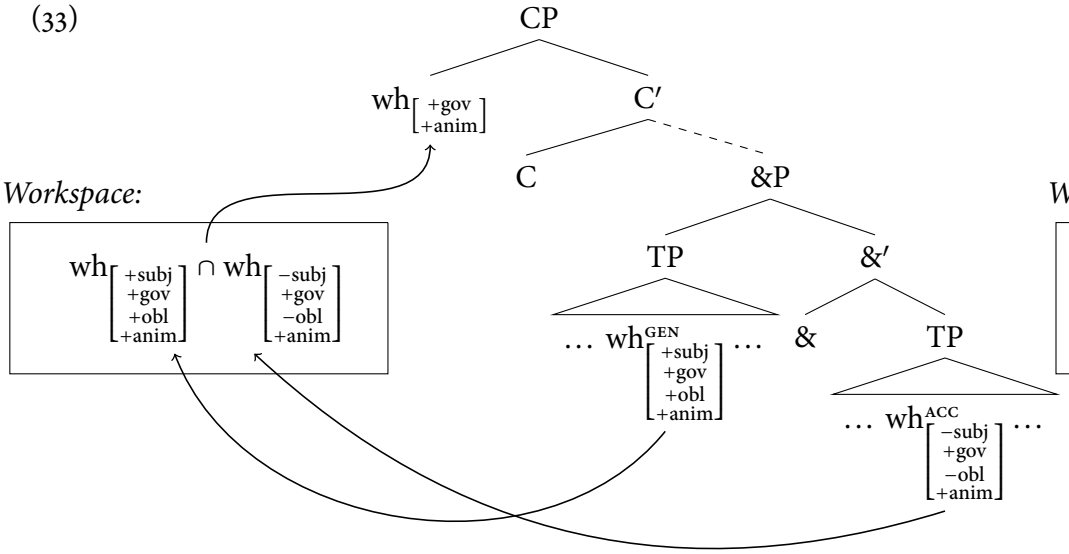


(31) *Vocabulary insertion*:
/komu/ ↔ [−subj −gov −obl +anim] ∉ {−subj +gov −obl +anim}
/kto/ ↔ [+subj −gov −obl +anim] ∉ {−subj +gov −obl +anim}
/kim/↔ [−gov +obl +anim] ∉ {−subj +gov −obl +anim}
/kogo/ ↔ [+gov +anim] ⊆ {−subj +gov −obl +anim}

4.2.2 ATB with case mismatch and syncretism

(32) Kogo Janek lubi $\_\__{ACC}$ a Jerzy nienawidzi $\_\__{GEN}$?
who.ACC/GEN John likes and George hates
'Who does John like and George hate?' (Borsley 1983:170)

(33)



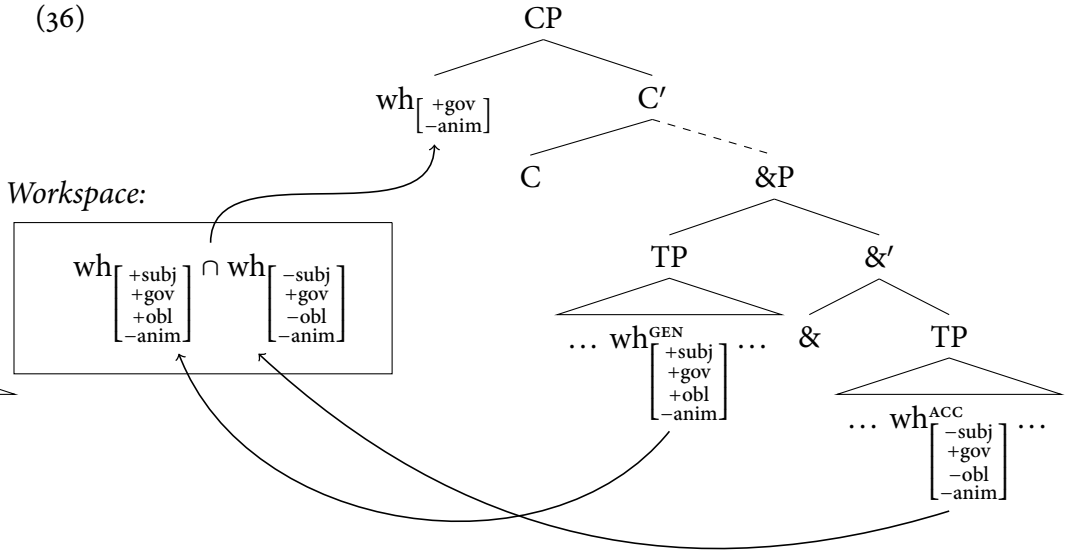
(34) *Vocabulary insertion*:
/komu/ ↔ [−subj −gov −obl +anim] ∉ {+gov +anim}
/kto/ ↔ [+subj −gov −obl +anim] ∉ {+gov +anim}
/kim/↔ [−gov +obl +anim] ∉ {+gov +anim}
/kogo/ ↔ [+gov +anim] ⊆ {+gov +anim}

4.2.3 ATB with case mismatch without syncretism

No VI fits

(35) *Czego / *Co Jan nienawidzi ___GEN a Maria lubi ___ACC?
what.GEN what.ACC Jan hates and Maria likes
'What does Jan hate and Maria like?' (Citko 2005:487)

(36)



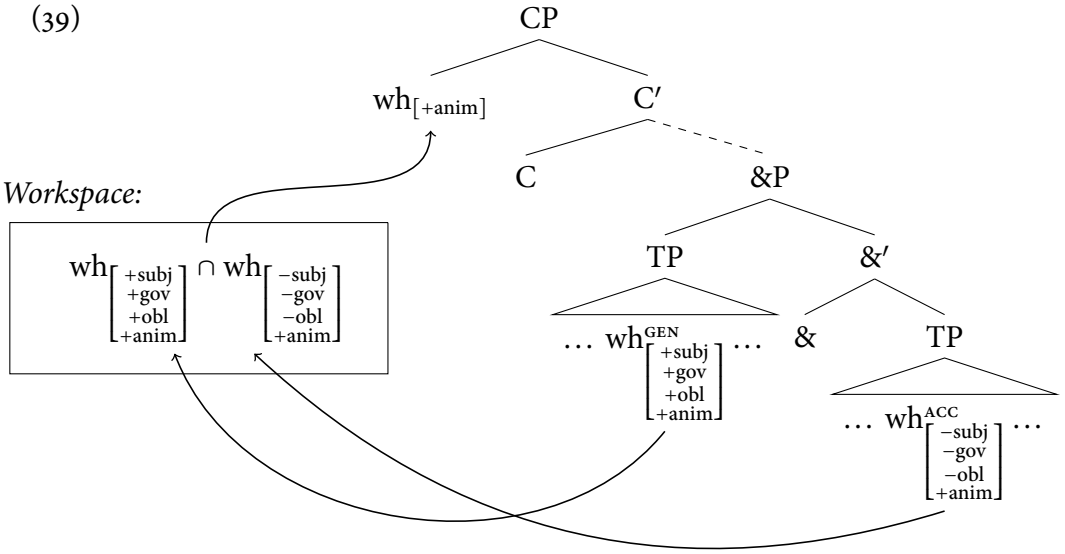
(37) *Vocabulary insertion*:
/czemu/ ↔ [−subj −gov −obl −anim] ∉ {+gov −anim}
/czego/ ↔ [+subj +gov +obl −anim] ∉ {+gov −anim}
/czym/↔ [−gov +obl −anim] ∉ {+gov −anim}
/co/ ↔ [−obl −anim] ∉ {+gov −anim}

- Since no VI fits the terminal's specification the derivation crashes. Crucially, this presupposes that no completely underspecified elsewhere exponent exists.

Empty intersection for case features = unvalued case

(38) *Kogo / *Komu Jan nienawidzi ___GEN a Maria
who.ACC/GEN who.DAT Jan hates and Maria
ufa ___DAT?
trusts
'Who does Jan hate and Maria trust?' (Joanna Zaleska, p.c.)

(39)



- The intersection of the case features of the two wh-elements is empty. As a consequence, the newly formed wh-item is unvalued for case in conflict with the Case Filter. The derivation crashes at the interfaces.

5 An even more eclectic approach to Right Node Raising?

- There are three main approaches to Right Node Raising (40) in the literature:

  (40) John loves ___ but Mary hates ___ musicals.

  – ATB movement (e.g. Postal 1974; Sabbagh 2007)

  – phonological ellipsis (e.g. Wilder 1997; Hartmann 2000)

  – multidominance (e.g. McCawley 1982; Gračanin-Yüksek 2013).

- As Bachrach & Katzir (2009) argue, the movement-based ATB approach seems untenable based a number of RNR properties such as island insensitivity (41), Right Roof Constraint (42) etc.

(41) a. John met [$_{DP}$ a man [$_{CP}$ who wrote _]], and Mary met [$_{DP}$ a woman [$_{CP}$ who published ___]] **a recent book about bats**.
b. *__Who__$_i$ did [$_{TP}$ [$_{DP}$ a man [$_{CP}$ who loves t$_i$] dance] and [$_{TP}$ [$_{DP}$ a woman [$_{CP}$ who hates t$_i$]] go home]?

(42) a. Sam saw _ yesterday **the new headmaster**.
b. *John claimed [$_{CP}$ that Sam loves _] yesterday **the new headmaster**
c. John claims [$_{CP}$ that Sam loves ___] and Mary claims [$_{that}$ Sam hates ___] **the new headmaster**.

- Barros & Vicente (2011) claim that RNR requires either multidominance or ellipsis.

- Despite the ATB account seeming dead in the water, there are a number of arguments in its favour involving scope and summative readings (see Sabbagh 2007)

  (43) John knows [a man who speaks ___] and Mary knows [a woman who wants to learn ___] **every Germanic language**.
  (∀ > ∃, ∃ > ∀)

  (44) a. [John hummed ___] and [Mary whistled ___] **different tunes**
  b. [John borrowed ___] and [Mary stole ___] **a total of 3,000 dollars from the Chase Manhattan Bank**.

- With the current state of affairs, if we could find that RNR also exhibits the same syncretism repair, there may be another argument in favour of an ATB approach.

- Asarina (2011:174) shows that Russian RNR does in fact show case matching effects which are repaired by syncretism:

  (45) *On ne ostavil ___$_{ACC}$, tak kak emu nadoela ___$_{NOM}$,
  he not kept as him sick.of

tarelk-u/a s chürnoj kaëmkoj.
plate-ACC/NOM with black border
'He didn't keep, as he was sick of, the plate with the black border.'

(46) On ne ostavil $\_\__{ACC}$, tak kak emu nadoela $\_\__{NOM}$,
he not kept as him sick.of
bljudc-e s chürnoj kaëmkoj.
plate-ACC/NOM with black border
'He didn't keep, as he was sick of, the saucer with the black border.'

- If it is true that syncretism repair is best handled in the way outlined above, then we may have another argument in favour of the much maligned ATB account to RNR.

  Take Home Message: We (still) have no idea what the correct analysis of RNR is.

6 Summary

- We have shown that the fact that syncretism can repair case mismatches in ATB dependencies is not necessarily a problem for Late Insertion approaches to morphology: Although it might seem that syntax has access to phonological information of syntactic object what is actually going on is that both the syntactic process of ATB-movement and the morphological phenomenon of syncretism share a common core: *feature set intersection*.

- In syntax, movement proceeds via an external workspace that can only hold one object at a time. In ATB-dependencies, where two items move in parallel, this leads to a conflict which is resolved by taking the intersection of both items to form a new item that is eventually merged in SpecCP. In postsyntactic morphology, syncretic VIs are specified for the intersection of two feature sets that are realised by this VI.

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