The syntax of sharing constructions

Appendix – related issues

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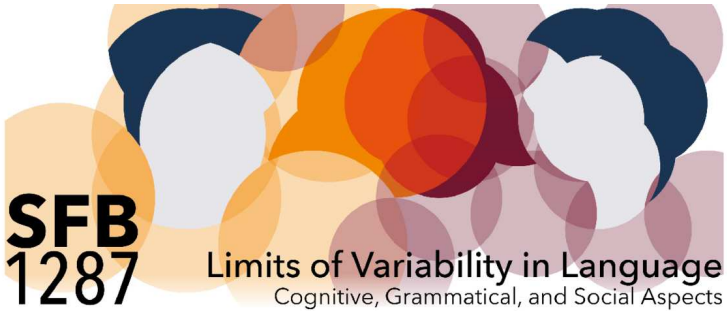

Overview

1. Reassessing the argument against haplology reduction

2. The CSC as a representational LF constraint

3. Details of the ellipsis approaches
   - Ha (2008)
   - Salzmann (2012)

4. Deriving the syncretism effect in case (mis)macthing
   - Citko (2005)
   - Hein & Murphy (2020)

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Reassessing arguments against haplology reduction I

- haplology reduction approach to ATB: there is movement from all gap sites (distinct elements) to the overt position of the antecedent (e.g., SpecC), but only one of them is pronounced, the others are deleted
- evidence against this approach: postulates multiple fronting in languages that do not exhibit this phenomenon; even languages that have (overt) multiple fronting can only have one antecedent in ATB

(1) Polish, Citko (2011: 57), Citko (2005: 492, fn.17):

a. Co$_i$ [Jan zgubił __$_i$] a [Piotr znalazł __$_j$] ?
what Jan lost and Piotr found
"What did Jan lose and Piotr find?" (Joanna Zaleska, p.c.)

b. *Co$_i$ co$_j$ [Jan zgubił __$_i$] a [Piotr znalazł __$_j$] ?
what what Jan lost and Piotr found
"What did Jan lose and Piotr find?"

c. *Kogo$_i$ komu$_j$ Jan lubi __$_i$ a Maria się przygląda __$_j$?
who.ACC who.DAT Jan likes and Maria REFL looks.at
"Who does Jan like and Maria looks at?"

Reassessing arguments against haplology reduction II

- Polish has multiple wh-fronting:

(2) Kto co kupił ?
who what bought
"Who bought what?" (Bošković 2002: 359)

- but: Polish exhibits a haplology effect in multiple wh-fronting (without sharing); in this case, one wh-pronoun must be pronounced in-situ (there is still evidence that this in-situ wh-element undergoes movement in syntax, see Bošković 2002: 374f. on other Slavic languages)

(3) Joanna Zaleska, p.c.:

a. *Co co powoduje ?
what what conditions

b. Co powoduje co ?
what conditions what
"What conditions what?"

Reassessing arguments against haplology reduction III

Thus, the ungrammaticality of (1-b) could be due to the same haplology effect → not an argument against the "haplology approach" to ATB

- examples like (1-c) can also receive a different explanation: they involve wh-elements with different case values/morphology, i.e., they exhibit a case mismatch, which is not tolerated in Polish ATB; (1-c) remains ungrammatical if only one of the wh-pronouns is pronounced (no matter which one), see the slides from Lecture 3

- we mut make sure that (1-b) is not just due to haplology to show that multiple fronting is not possible in ATB;
  how can we do that? check whether the usual haplology repair (pronunciation of one wh-element in-situ) is possible in ATB; this is not the case, see (4):

Reassessing arguments against haplology reduction IV

(4) Joanna Zaleska, p.c.:

a. *Co$_1$ [Jan zgubił __$_1$] a [Piotr znalazł co$_2$] ?
what Jan lost and Piotr found what
"What did Jan lose and Piotr find?"

b. *Co$_2$ [Jan zgubił co$_1$] a [Piotr znalazł __$_2$] ?
what Jan lost what and Piotr found what
"What did Jan lose and Piotr find?"

↪ ATB in Polish is not the result of multiple fronting (+ haplology reduction)

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The classic definition of the CSC

(5) Coordinate Structure Constraint (CSC, Ross 1967: 161) In a coordinate structure, no conjunct may be moved, nor may any element contained in a conjunct be moved out of that conjunct.

⇒ The CSC is a syntactic constraint, i.e., it blocks overt movement.

(6)
a. John is [proud of his father] and [tired of his mother].
b. *Who$_1$ is John [proud of __$_1$] and [tired of his mother]?
c. *Who$_1$ is John [proud of his father] and [tired of __$_1$]?

(7)
a. Kim likes [Bill and Tim].
b. *Who$_1$ does Kim like [__$_1$ and Tim] ?
c. *Who$_1$ does Kim like [Bill and __$_1$] ?

The only systematic exception is ATB (and RNR – if it involves movement).

The CSC as a representational LF constraint I

There are surface exceptions to the CSC that suggest that the conjuncts must rather exhibit semantic parallelism:

The extracted operator must bind a variable in all conjuncts.

1. Ruys (1992); Fox (2000):
   QR and covert wh-movement can affect only one conjunct as long as the extracted element establishes a binding relation inside both conjuncts

   (8) a. A student [likes *every professor*$_1$] and [wants *him*$_1$ to be on his committee]. $\exists > \forall$; $\forall > \exists$
   b. I wonder who [took *what*$_1$ from Mary] and [gave *it*$_1$ to Fred].

   note: the CSC *is* active at LF – if a binding relation is established in only ne conjunct, the result is ungrammatical (see Ruys 1992; Fox 2000):

   (9) a. A student [likes **every professor**] and [hates the dean]. $\exists > \forall$; *$\forall > \exists$
   b. *I wonder who [took *what* from Mary] and [gave a book to Fred].

The CSC as a representational LF constraint II

2. Salzmann (2012):
   - observation: in Swiss German, gaps and resumptive pronouns (RPs) can be combined in ATB (mixed chains)

     (10) a. $XP_1 \ldots$ [&P [$\ldots$ $\_\__1$ $\ldots$] and [$\ldots$ RP $\ldots$]]

     b. Pseudo-English: Who does John like __ and Mary hate **her**?

   - there is independent evidence that resumption involves base-generation in the language $\hookrightarrow$ there is movement out of only one conjunct, still the result is grammatical
   - key: RPs are obligatorily bound pronouns (no 'third-party reading')
   - the grammaticality follows under the repres. LF view of the CSC
   - mixed SC-chains have been reported for Swedish, Palauan, Hebrew; but it is not clear whether resumption involves base-generation in these languages (rather then regular ATB-movement from all conjuncts)

The CSC as a representational LF constraint III

- This LF-view of the CSC has been applied in Munn (1993); Reich (2007); Ha (2008); Salzmann (2012) to explain how asymmetric approaches can be made compatible with the CSC.

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Ellipsis derivation for RNR I

Ha's (2008) proposal: the "shared" constituent XP originates in the 2nd conjunct, a distinct occurrence in the 1st conjunct is elided under identity with the one in the 2nd conjunct; the XP in the 2nd conjunct is extracted

(11) What does John like and Mary hate?

Steps in the derivation:

1. the conjuncts are built up independently
2. 1st conjunct: the contrastively focused verb LIKED enters the derivation with the ellipsis-licensing feature E_{RNR}; it instructs PF not to pronounce the sister of the head that bears E_{RNR}

   (12) $[_{\mathrm{TP1}}$ JOHN LIKED$_{[E_{RNR}]}$ <what>]
3. conjunct 2: successive-cyclic movement of the pivot (through SpecvP)

   (13) $[_{\mathrm{TP2}}$ MARY $[_{\mathrm{vP}}$ *what*$_2$ HATED $\_\__2$]]]]

Ellipsis derivation for RNR II

4. the conjuncts merge with & (asymmetric structure, Conj in Spec&P, Conj2 = complement of &); the pivot in Specv of the 2nd conjunct moves on to SpecCP (outside of the coordination)

(14) $[_{\mathrm{CP}}$ What$_2$ did$_{[+wh]}$ $[_{\&\mathrm{P}}$ $[_{\mathrm{TP1}}$ JOHN LIKED$_{[E_{RNR}]}$ <~~what~~>] and $[_{\mathrm{TP2}}$ MARY $[_{\mathrm{vP}}$ __'$_2$ HATED __$_2$]]]]

5. why does ellipsis only apply to the 1st conjunct?
an &P-external head F probes (must be valued by) E_{RNR}; both conjuncts could contain E_{RNR}, but the closeness condition on Agree forces F to target E_{RNR} in the 1st conjunct

Ellipsis derivation for RNR III

6. LF: the elided element in the 1st conjunct can be interpreted as a variable, which can be bound by the moved XP $\rightarrow$ derives the single-individual reading; must be optional, however, to also cover paired answers

   Sabbagh (2014: 28f.): "Problematically, though, Ha offers no explicit proposal for when a constituent elided in RNR can or must be interpreted as a variable. It must not be the case that elided constituents are always interpreted as variable, since otherwise, simple RNR sentences like those in (1) would always contain unbound variables."

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Deriving the syncretism effect: Citko (2005) I

- recall: in some languages with morphological case the gap sites cannot be subject to different case requirements, there can be no case mismatch
- exception: a mismatch in abstract case is ok if the shared XP is syncretic for these cases

(15) Polish (Citko 2005: 485, 487):

a. Kogo Jan lubi __*Acc* a Maria podziwia __*Acc*
who.ACC Jan likes and Maria admires
"Who does Jan like and Maria admire?"

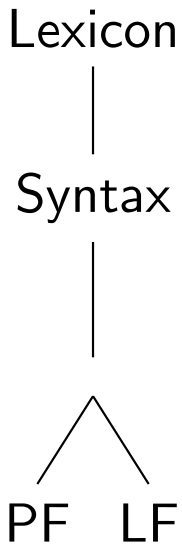
b. *Kogo / Komu Jan lubi __*Acc* a Maria ufa __*Dat*
who.ACC who.DAT Jan likes and Maria trusts
"Who does Jan like and Maria trust?"

c. Kogo Jan nienawidzi __*Gen* a Maria lubi __*Acc*
who.ACC/GEN Jan hates and Maria likes
"Whom does Jan hate and Maria like?"

Deriving the syncretism effect: Citko (2005) II

- challenge: T/Y-model of grammar, postsyntactic insertion of exponents (as, for example, in DM): how can morphology 'repair' syntax?

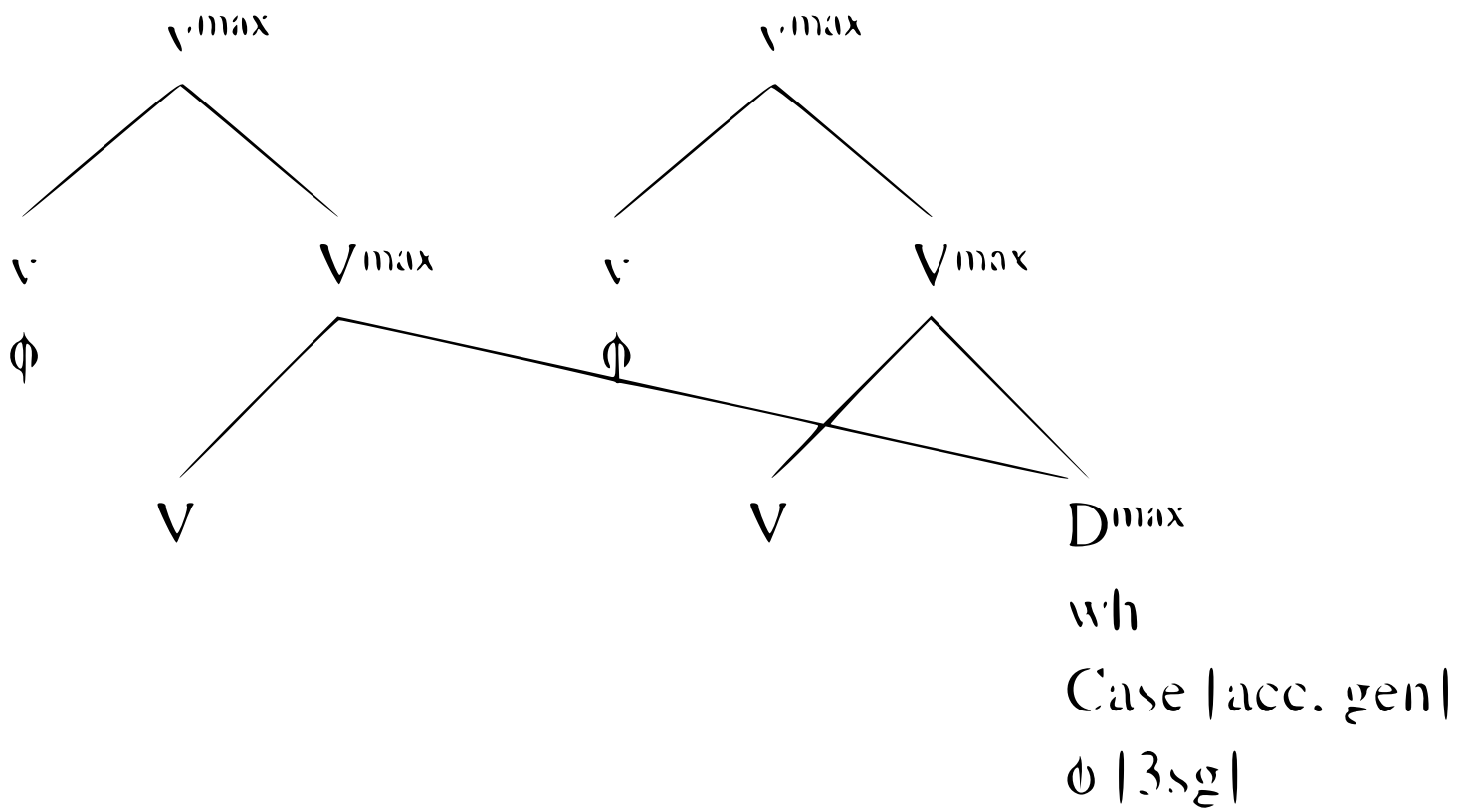
(16)



Deriving the syncretism effect: Citko (2005) III

- analysis proposed in Citko (2005):
  - syntax: the shared DP can be assigned more than one case (stacking of abstract case values)

(17)



Deriving the syncretism effect: Citko (2005) IV

- "I assume that lexical items are inserted postsyntactically during Spell-Out, following the Distributed Morphology framework" (p.487)
- the 'stacked cases' can be realized by a lexical item that is underspecified such that it is compatible with both abstract case values
- if there is no such lexical item, we get a "feature clash" and "the result is ungrammatical" (ibid., p.488)
- Citko does not provide lexical entires for the relevant items

Deriving the syncretism effect: Citko (2005) V

- background on Distributed Morphology (Halle and Marantz 1993; 1994; Embick and Noyer 2001):
  - terminal nodes in the syntax contain abstract morpho-syntactic features, but lack phonological content
  - the terminals are paired with phonological information after syntax by the insertion of lexical items (vocabulary items, VIs)
  - insertion applies in accordance with the Subset Principle + Specificity:

(18) Subset Principle:
A vocabulary item V is inserted into a functional morpheme M (a syntactic terminal) iff (a) and (b) hold:

a. The morpho-syntactic features of V are a subset of the morpho-syntactic features of M.
b. is the most specific VI that satisfies (a).

Deriving the syncretism effect: Citko (2005) VI

(19) Specificity:
A VI V_i is more specific than a VI V_i iff V_i has more morpho-syntactic features than V_i.

- toy example: the syntactic terminal with the features in (20-a) will be realized by the VI in (20-b-i) (/W/, /X/, /Z/ have a subset of the features on the terminal, but /W/ shares the most features with it)

(20) a. syntactic terminal: [A, B, C]
b. VIs:
(i) /W/ $\leftrightarrow$ [A, B]
(ii) /X/ $\leftrightarrow$ [B]
(iii) /Y/ $\leftrightarrow$ [B, D]
(iv) /Z/ $\leftrightarrow$ [ ]

Deriving the syncretism effect: Citko (2005) VII

- critique (see Hein and Murphy 2020):
  - mismatch contexts: whichever (if any) VI is inserted in a terminal node in the postsyntax cannot cause a crash of the syntactic derivation, VIs simply realize the output of syntax

    either the ACC- or the GEN-VI can be inserted
  - case stacking contexts (mismatching or matching): Why are not both sets of features realized or just one of them?
  - matching values: a solution would be to fuse identical features into a single occurrence of to insert both VIs and delete one due to haplology
  - Hein and Murphy (2020) on mismatch configurations: apprently, Citko assumes privative case features (ACC, GEN, ...)

    syncretism configuration: shared node bears ACC + GEN; VI *kogo* can be specified as follows:

Deriving the syncretism effect: Citko (2005) VIII

(21) a. [case: acc, gen]
b. [case: acc]
c. [case: gen]

problem for (21-a): the VI could not be inserted in non-sharing contexts where the antecedent bears either ACC or GEN

problem for (21-b-c): we would need a second (homophonous) entry for the other case ↪ the syncretism is not derived (accidental homophony)

- possible solution: case feature decomposition, e.g., as in (22)

(22) a. ACC [$+\alpha$, $+\beta$]
b. GEN [$+\alpha$, $-\beta$]

→ *kogo* can realize [$+\alpha$]

Deriving the syncretism effect: Hein & Murphy (2020) I

- sharing derivation: parallel extraction of a (distinct) wh-element per conjunct
- assumption: the copies of wh-elements are temporarily stored in a separate workspace; in this workspace, their features sets are intersected (in case of a conflict of values: the resulting feature remains empty) → creates a single wh-element, which is then remerged in the landing site of the shared wh-element
- case features are decomposed:

(23) Case Decomposition (plus [+/–animate]):

a. NOM: [subj:+ gov:– obl:–]
b. ACC: [subj:– gov:+ obl:–]
c. GEN: [subj:+ gov:+ obl:+]
d. DAT: [subj:– gov:– obl:–]
e. INS: [subj:+ gov:– obl:+]
f. LOC: [subj:– gov:– obl:+]

Deriving the syncretism effect: Hein & Murphy (2020) II

(24) syncretic form (animate):
/kogo/ ↔ [gov:+, anim:+]

(25) VIs for Polish wh-pronouns:

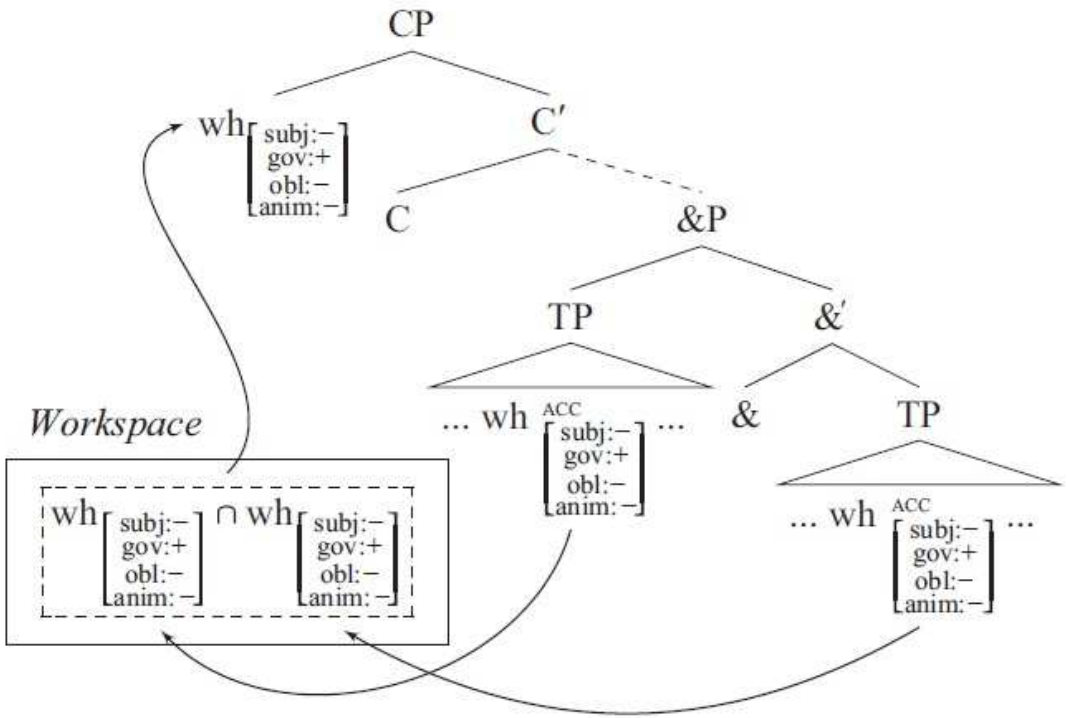
VIs for Polish wh-phrases

	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:−]

Deriving the syncretism effect: Hein & Murphy (2020) III

- contexts:

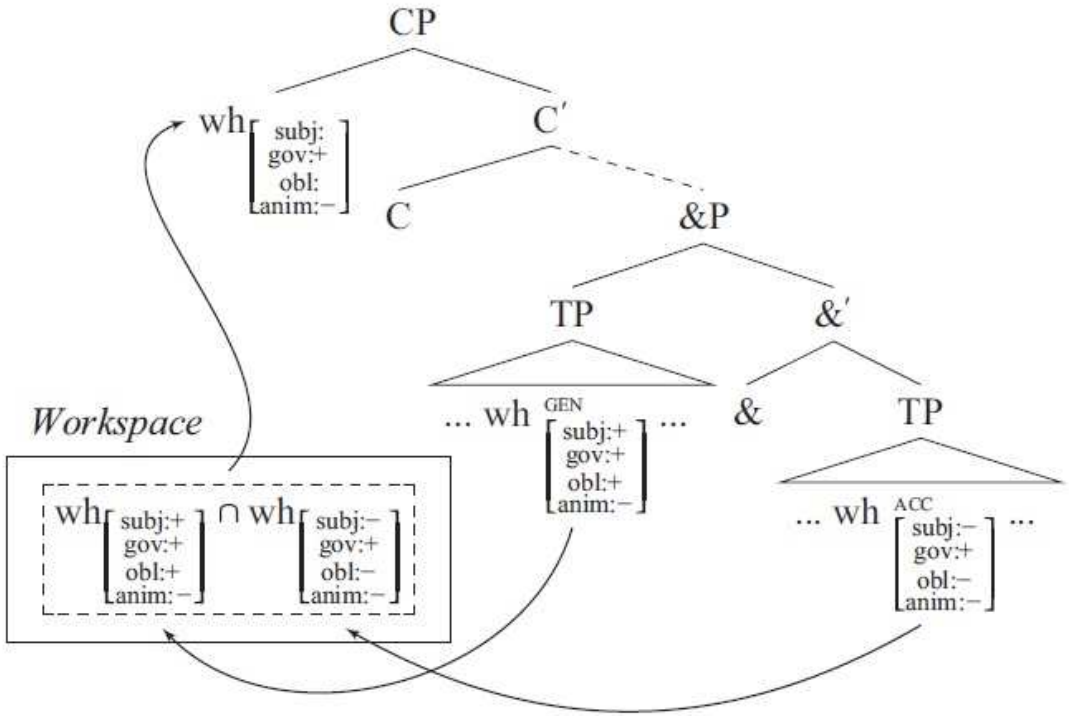
(26) matching cases (ACC)



VI /co/ can be inserted

Deriving the syncretism effect: Hein & Murphy (2020) IV

(27) mismatching cases (ACC), no syncretism

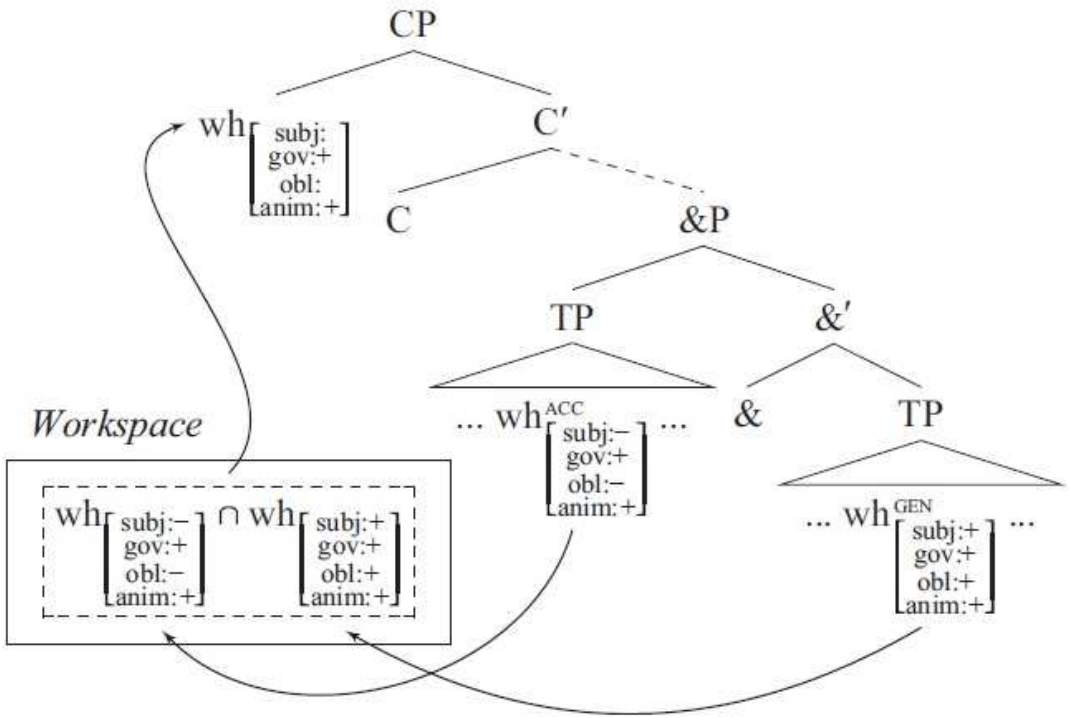


Deriving the syncretism effect: Hein & Murphy (2020) V

no matching VI available for the resulting feature set
p.283: "For reasons of recoverability, however, a wh-phrase cannot remain unrealized at PF and the failure of vocabulary insertion results in a crash of the derivation which explains why (62) is ungrammatical."
note: there are languages with phonologically zero wh-elements, see Torrence (2012) on Wolof

Deriving the syncretism effect: Hein & Murphy (2020) VI

(28) mismatching cases (ACC), syncretism



- see their sec. 3.4. for an algorithm that captures the sharing of complex wh-phrases

Deriving the syncretism effect: Hein & Murphy (2020) VII

- extension to RNR: same case matching requirement, syncretism effect in Russian RNR (Asarina 2011); requires a movement derivation in parallel to ATB; same analysis, only the case decomposition (and the VI specifications) differ a bit from Russian
- but: they provide no independent evidence for a movement derivation of RNR in Russian (though they acknowledge that RNR probably requires different structures in different languages)

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