The Morphosyntax of Upward Agreement and Downward Agreement

Part II: Background on the direction condition

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Agreement is more than SVA

Agreement in general is given when two items in a linguistic expression have to match in one or more properties.

Examples:

- subject-verb-agreement
- agreement in the noun phrase
- binding relations
- tense and negative concord
- case matching
- ...

Modeling Agreement with *Agree*

- many ways to model agreement in different theories
- agreement is mostly seen as something syntactic since structure (esp. c-command relations) seems to play a role
- in derivational frameworks, agreement is modeled as an operation (a derivational step)

Agree (Minimalist Program)

(1) Definition (Richards (2008)): **Agree**(P[robe],G[oal]) if

a. P c-commands G (**direction condition**)
b. P and G are active (activity condition)
c. P matches G for feature F (matching condition)
d. G is interpretable (= valued) for F (interpretability condition)

... with the result that...
P values and deletes uF on G (if P is ϕ-complete);
(maximization principle)
G values and deletes uF on P

The Direction Condition

a.k.a. the c-command condition

- Standardly, the probe is higher in the structure than the goal. Consequently, Agree applies downwards.
- But in general, there seems to be no definite argument, why there should only be Downward Agree.
- The direction of Agree is up for research.

Interesting Patterns

Question

What kind of patterns tell us something about the direction of Agree?

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Ideal case:

- Two structures:
  1. Agreement target (probe) c-commands potential agreement controller (goal)
  2. Potential agreement controller (goal) c-commands agreement target (probe)
- The two structures are in the same language
- Agreement in both structures regards the same feature
- Agreement targets are the same element in both structures, and so are agreement controllers

⇒ Check if agreement can only be established in one the structures

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Different stands on the direction condition

- **Only Downward Agree** (e.g. Chomsky (2000))
- **Only Upward Agree** (e.g. Zeijlstra (2012))
- **Direction depends on configuration** (heads, features, languages) (e.g. Baker (2008))
- **Both directions with preference for upward Agree** (e.g. Chomsky 1986:24-27, Kayne 1989, Koopman 1992:557, Koopman 2006, Chomsky 1995:149, Assmann et al. 2015:357,Bjorkman and Zeijlstra 2019)
- **Both directions with preference for downward Agree** (e.g. Béjar and Řezáč (2009), Himmelreich (2017))
- **Both directions with no preference** (???, allowed potentially in representational accounts)

Different arguments

- **Yes to Downward Agree**: There is Downward Agree. If there were no Downward Agree, a certain set of data could not be derived.
- **Yes to Upward Agree**: There is Upward Agree. If there were no Upward Agree, a certain set of data could not be derived.
- **No to Downward Agree**: There is no Downward Agree. If there were Downward Agree, a certain set of data could not be derived.
- **No to Upward Agree**: There is no Upward Agree. If there were Upward Agree, a certain set of data could not be derived.

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Definition I

Chomsky (2000)

- "A second is an operation we can call *Agree*, which establishes a relation (agreement, Case checking) between an LI α and a feature F in some restricted search space (its *domain*). Unlike Merge, this operation is language-specific, never built into special-purpose symbolic systems and apparently without significant analogue elsewhere. We are therefore led to speculate that it relates to the design conditions for human language." (p. 101)
- "The erasure of uninterpretable features of probe and goal is the operation we called *Agree*." (p. 122)
- "Matching is a relation that holds of a probe P and a goal G. Not every matching pair induces Agree. To do so, G must (at least) be in the *domain* D(P) of P and satisfy locality conditions. The simplest assumptions for the probe-goal system are shown in (40).

Definition II

(40) a. Matching is feature identity.
b. D(P) is the sister of P.
c. Locality reduces to “closest c-command”.

Thus, D(P) is the c-command domain of P, and a matching feature G is *closest to* P if there is no G′ in D(P) matching P such that G is in D(G′).” (p. 122)

Arguments

Hindi (Bhatt (2005:775), Boeckx (2004:26)): Only arguments that are not case-marked can agree with verbs.

(2) a. Vivek-ne kitaab parh-nii chaah-ii.
Vivek-ERG book.F.SG read-INF.F.SG want-PERF.F.SG
'Vivek wanted to read the book.'

b. Mona kuttõ-ko dekh-naa/*nii chaah-tii thii.
Mona dog.M.PL-ACC see-INF/*INF.F.SG want-HAB.F.SG be-PAST.F.SG
'Mona wanted to see the dogs.'

Question

How can these data be used for an argument for Downward Agree?

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Definition

Zeijlstra (2012), Bjorkman and Zeijlstra (2014)

(3) *Agree*: P can Agree with G iff:

a. P carries at least one uninterpretable feature and G carries a matching interpretable feature.
b. G c-commands P.
c. G is the closest goal to P.

Arguments I

- **Reverse Agree** (Baker (2008)):

(4) a. Ka-mu-dzi ku-li chi-tsîme
17-3-village 17-be 7-well
'In the village is a well' *(Chichewa)*

b. Omo-mulongo mw-a-hik-a mukali
LOC.18-village.3 18S-T-arrive-FV woman.1
'At the village arrived a woman' *(Kinande)*

Question

How can these data be used for an argument for Upward Agree?

Arguments II

- **Multiple Agree** (Ura (1996), Hiraiwa (2001), Hiraiwa (2005)):

(5) John-ga [yosouijouni nihonjin-ga eigo-ga
John.NOM than.expected the.Japanese.NOM English.NOM
hidoku] kanji-ta.
bad.INF thought
'It seemed to John that the Japanese are worse at speaking English than he had expected.' *(Japanese)*

Question

How can these data be used for an argument for Upward Agree?

Arguments III

- **Sequence of Tense**:

(6) John said Mary was ill.

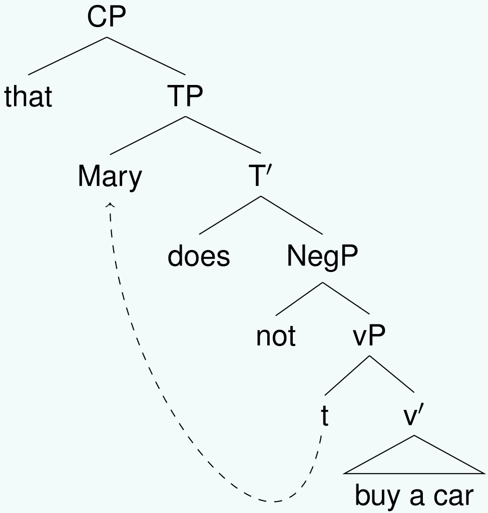
Question

How can these data be used for an argument for Upward Agree?

A look-ahead problem I

(7) John tells them that Mary does not buy a car.

(8)



A look-ahead problem II

Question

Why does *Mary* have to move?

Solution

Bjorkman and Zeijlstra (2014:13)

(9) **Accessibility condition**: P is accessible to G iff:

a. G c-commands P (respecting additional locality restrictions) or

b. if P and G are members of an Upwards Agree-chain where $<$x$_n$, ..., x$_1$ $>$ is an U(pward)A(gree)-chain iff every chain member x$_{i+1}$ stands in an UA relation with x$_i$.

Solution

Bjorkman and Zeijlstra (2014:13)

(9) **Accessibility condition**: P is accessible to G iff:

a. G c-commands P (respecting additional locality restrictions) or

b. if P and G are members of an Upwards Agree-chain where $<$x$_n$, ..., x$_1$ $>$ is an U(pward)A(gree)-chain iff every chain member x$_{i+1}$ stands in an UA relation with x$_i$.

Solution for EPP-problem: Case agreement enables ϕ-agreement

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Definition I

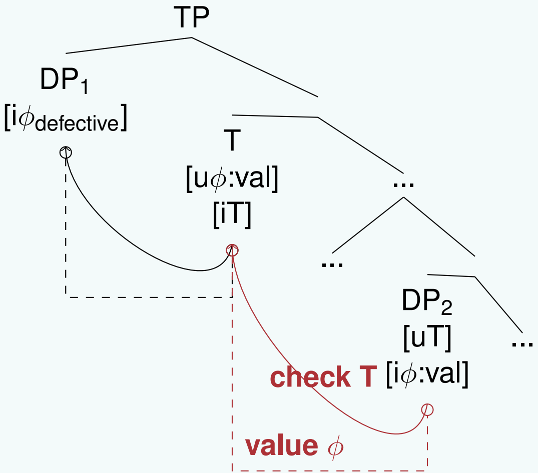
Bjorkman and Zeijlstra (2019:535ff.)

(10) Upward Agree (= feature checking) G checks an uninterpretable feature on P iff

a. G carries a matching interpretable feature;
b. G c-commands P;
c. G is the closest goal to P.

Valuation of a feature F_1 happens if P and G are accessible to each other via Upward Agree (possibly Agree in some other feature F_2).

(11) **Upward Agree in [T] enables upward valuation ($\approx$ Downward Agree) of [ϕ] by lower DP_2**



Arguments I

Downward agreement often defective (cf. Baker's (2008) SCOPA, see below)

(12) *Modern Standard Arabic*

a. t-taalibaat-u ʔakal-na/*ʔakal-at
the-student.FEM.PL-NOM ate-FEM.3PL/*ate-FEM.3SG
'The students ate.'

b. ʔakal-at/*ʔakal-na t-taalibaat-u
ate-FEM.3SG/*ate-FEM.3PL the-student.FEM.PL-NOM
'The students ate.'

(13) *English*

a. There 's/are three books on the table.
b. Three books are/*is on the table.

Arguments II

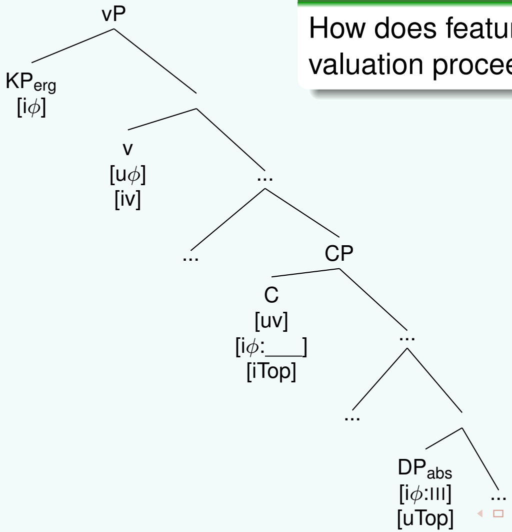
But downward (long-distance) agreement is possible
Tsez (Polinsky and Potsdam 2001:609)

(14)	Enir	[užā	magalu	b-āc'ruƛi	]	b-iyxo.
	mother	[boy	bread.ABS(III)	III-ate	]	III-know

'The mother knows [that (as for the bread) the boy ate it].'

Arguments III

(15)



Question

How does feature checking and valuation proceed?

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Definitions I

Baker (2008:ch.2):
Universal bidirectional Agree at first glance

(16) A functional head F agrees with XP, XP a maximal projection, only if:

a. F c-commands XP or XP c-commands F
b. There is no YP such that F c-commands YP, YP c-commands XP, and YP has ϕ-features
c. F and XP are contained in all the same phases (e.g., full CPs)
d. XP is made active for agreement by having an unchecked case feature

Definitions II

(17) a. Verbs are lexical categories that license a specifier.
b. Nouns are lexical categories that have a referential index.
c. Adjectives are lexical categories that have neither a specifier nor a referential index.

(18) Any lexical category can be immediately dominated by the projection of a functional head that matches it in gross categorical features. Functional heads, unlike lexical heads, can manifest agreement.

(19) **The Structural Condition on Person Agreement (SCOPA)**
A functional category F can bear the features +1 or +2 if and only if a projection of F merges with an NP that has that feature, and F is taken as the label for the resulting phrase.

Definitions III

Question

What does the SCOPA mean structurally?

Arguments

Agreement Asymmetries between verbs, nouns, and adjectives (*Swahili*, (Baker 2008:1f))

(20) a. Ni-li-kuwa ni-ki-som-a.
1sS-PAST-be 1sS-CONT-read-FV
'I was reading.'

b. Ni-∅ m-refu.
1sS-be CL1-tall
'I am tall.'

c. Ni-li-po-kuwa ki-jana ... sasa ni-li-po m-tu m-zima, ...
1sS-PAST-when-be CL7-child now 1sS-be-when CL1-man CL1-whole
'When I was a child ... Now that I am a man ...'

Question

How can these data be used for an argument for a category-specific directionality of Agree?

(Baker 2008:215)

(21) **The Direction of Agreement Parameter**

a. F agrees with DP/NP only if DP/NP asymmetrically c-commands F, or

b. F agrees with DP/NP only if F c-commands DP/NP, or

c. F agrees with DP/NP only if F c-commands DP/NP or vice versa.

Parametrization II

(22) a. On the table were/*was (put) some peanuts.
b. On the table was/*were (put) a peanut.

(*Kinande*, Baker (2003))

(23) a.

Omo-mulongo	mw-a-hik-a	mukali.
LOC.18-village.3	18S-T-arrive-FV	woman.1

'At the village arrived a woman.'

b.

Oko-mesa	kw-a-hir-aw-a	ehilanga.
LOC.17-table	17S-T-put-pass-FV	peanuts.19

'On the table were put peanuts.'

(*Burushaski*, Willson (1996:3))

(24) a.

Dasín	há-e	le mó-yan-umo.
girl(ABS)	house-OBL	in 3SO.F-slept-3SS.F

'The girl slept in the house.'

b.

Dasín	há-e	le huruT-umo.
girl(ABS)	house-OBL	in sat-3SS.F

'The girl sat in the house.'

Parametrization III

Question

How is the direction parameter specified for English, Kinande, and Burushaski respectively?

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The puzzle

Question

How can we enforce Downward Agree if, empirically, the agreement target is lower in the structure than the agreement controller?

Solution I

Valuation and interpretability are not connected (Pesetsky and Torrego (2007), Bošković (2011), Heck and Himmelreich (2017))

(25) **Types of features** (Pesetsky and Torrego (2007))

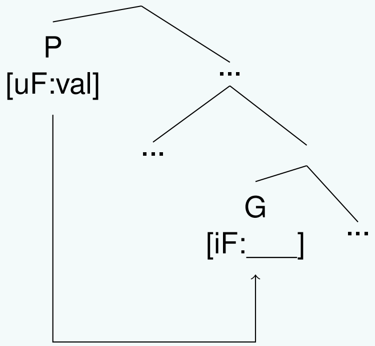
a. uF:___ uninterpretable, unvalued
b. iF:___ interpretable, unvalued (**new!**)
c. iF:val interpretable, valued
d. uF:val uninterpretable, valued (**new!**)

The probe has the feature that is uninterpretable in order to trigger Agree. The value does not matter.

This is already a separation of Agree into two steps: Building the dependency between elements and taking care of the value.

Solution II

(26)



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A bidirectional Agree operation I

Himmelreich (2017):

- The search operation of Agree keeps on scanning the tree as long as there is no goal found. The best case scenario is one where only one node needs to be checked. The worst case scenario is one where the entire tree needs to be scanned. This is equivalent to the Chomskyan approach.
- Earliness holds for the probe feature as long as it is unchecked.
- Due to the bottom-up nature of derivations, the search will always be initiated in the c-command domain, giving rise to a preference for Downward Agree.

A bidirectional Agree operation II

(27) **Agree-Link** P builds a link to G iff

a. P carries and Agree feature [$*$F$*$] and G carries matching feature [F]
b. P c-commands G or G c-commands P
c. G is the closest goal to P

(28) **Search Algorithm** (after P is merged)

1. Check whether the sister X of P is a suitable goal.
   If so, stop.
   If not,
2. Search X top-down for a suitable goal (until you reach the terminal nodes.).
   If a suitable goal is found, stop.
   If there is no suitable goal in X,
3. Wait for the next item Y to be merged to the root node.
4. Check whether Y is a suitable goal for P.
   If so, stop.
   If not, go to Step 3.

A bidirectional Agree operation III

(29)

```
Agree-Link (X[*F*], [A, B])
 //Upward
<1>  IF Contains(A,X)
<2>    IF Feat(B,F) RETURN (X,B);
<3>    ELSE RETURN; //no Goal found
<4>  ELSEIF Contains(B,X)
<5>    IF Feat(A,F) RETURN (X,A);
<6>    ELSE RETURN; //no Goal found
 //Sister
<7>  ELSEIF A = X
<8>    IF Feat(B,F) RETURN (X,B);
<9>    ELSE Agree(X[*F*], B);
<10> ELSEIF B = X
<11>   IF Feat(A,F) RETURN (X,A);
<12>   ELSE Agree(X[*F*], A);
 //Rest of C-Command Domain
<13> ELSE
<14>   IF Feat(A,F) RETURN (X,A);
<15>   ELSEIF Feat(B,F) RETURN (X,B);
<16>   ELSEIF A = [C,D] Agree (X[*F*], A);
<17>   ELSEIF B = [C,D] Agree (X[*F*], B);
<18>   ELSE RETURN; //no Goal found
```

(30)

```
<20> Contains([A,B], X)
<21>    IF Dominates(A, X) RETURN true;
<22>    ELSEIF Dominates(B, X) RETURN true;
<23>    ELSEIF A = [C,D] Contains(A, X);
<24>    ELSEIF B = [C,D] Contains(B, X);
<25>    ELSE RETURN false;
```

Motivation

Case matching effects in free relatives and parasitic gaps

Parasitic gaps

(31)

weil	Hans	die	Frau	[ohne	anzusehen]	geküsst	hat
because	Hans	the	woman	without	to.look.at	kissed	has

‘because Hans has kissed the woman without looking at (her)’

Parasitic gaps

(31) weil Hans die Frau [ohne anzusehen] geküsst hat
because Hans the woman without to.look.at kissed has
'because Hans has kissed the woman without looking at (her)'

a. because Hans the woman$_1$ [without her$_1$ looking at] kissed has

Parasitic gaps

(31)

weil	Hans	die	Frau	[	ohne	anzusehen	]	geküsst	hat
because	Hans	the	woman		without	to.look.at		kissed	has

‘because Hans has kissed the woman without looking at (her)’

a. because Hans the woman$_1$ [without her$_1$ looking at] kissed has

b. because Hans the woman$_1$ kissed has

Parasitic gaps

(31)

weil	Hans	die	Frau	[ohne	anzusehen]	geküsst	hat
because	Hans	the	woman	without	to.look.at	kissed	has

‘because Hans has kissed the woman without looking at (her)’

a.	because Hans	the $woman_1$	[without	her_1	looking at]		kissed has
b.	because Hans					the $woman_1$	kissed has
c.	because Hans	the $woman_1$				$\_\_\_\__1$	kissed has

Parasitic gaps

(31) weil Hans die Frau [ohne anzusehen] geküsst hat
because Hans the woman without to.look.at kissed has
'because Hans has kissed the woman without looking at (her)'

a. because Hans	the woman$_1$	[without	her$_1$	looking at]		kissed has
b. because Hans				(tonight)	the woman$_1$	kissed has
c. because Hans	the woman$_1$			(tonight)	____$_1$	kissed has

Parasitic gaps

(31) weil Hans die Frau [ohne anzusehen] geküsst hat
because Hans the woman without to.look.at kissed has
'because Hans has kissed the woman without looking at (her)'

a.	because Hans	the woman$_1$	[without	her$_1$	looking at]			kissed has
b.	because Hans					the woman$_1$		kissed has
c.	because Hans	the woman$_1$				___$_1$		kissed has
d.	because Hans	the woman$_1$	[without	___$_1$	looking at]	___$_1$		kissed has

Parasitic gaps

(31) weil Hans die Frau [ohne anzusehen] geküsst hat
because Hans the woman without to.look.at kissed has
'because Hans has kissed the woman without looking at (her)'

a.	because Hans	the woman$_1$	[without	her$_1$	looking at]		kissed has
b.	because Hans					the woman$_1$	kissed has
c.	because Hans	the woman$_1$				___$_1$	kissed has
d.	because Hans	the woman$_1$	[without	___$_1$	looking at]	___$_1$	kissed has
e.	*because Hans		[without	___$_1$	looking at]	the woman$_1$	kissed has

Free relatives

(32) Hans mag, wen (auch immer) Maria hasst.
Hans likes who ever Maria hates
'Hans likes whoever Maria hates.'

Free relatives

(32) Hans mag, wen (auch immer) Maria hasst.
Hans likes who ever Maria hates
'Hans likes whoever Maria hates.'

a. likes		who	Maria	hates	likes	everyone	that	Maria		hates

Free relatives

(32) Hans mag, wen (auch immer) Maria hasst.
Hans likes who ever Maria hates
'Hans likes whoever Maria hates.'

a.	likes	who	Maria		hates	likes	everyone	that	Maria		hates
b.			Maria	who	hates				Maria	that	hates

Free relatives

(32) Hans mag, wen (auch immer) Maria hasst.
Hans likes who ever Maria hates
'Hans likes whoever Maria hates.'

a.	likes	who	Maria		hates	likes	everyone	that	Maria		hates
b.			Maria	who	hates				Maria	that	hates
c.		who_2	Maria	$\_\_\__2$	hates			that	Maria	___	hates

Free relatives

(32) Hans mag, <u>wen</u> (auch immer) Maria hasst.
Hans likes who ever Maria hates
'Hans likes whoever Maria hates.'

a. likes		who	Maria		hates	likes	everyone		that	Maria		hates
b.			Maria	<u>who</u>	hates					Maria	<u>that</u>	hates
c.		<u>who</u>$_2$	Maria	___$_2$	hates				<u>that</u>	Maria	___	hates
d.	___$_2$ [	<u>who</u>$_2$	Maria	___$_2$	hates]		everyone	[	<u>that</u>	Maria	___	hates]

Free relatives

(32) Hans mag, wen (auch immer) Maria hasst.
Hans likes who ever Maria hates
'Hans likes whoever Maria hates.'

a.	likes			who	Maria		hates		likes	everyone		that	Maria		hates	
b.					Maria	who	hates						Maria	that	hates	
c.				who_2	Maria	$\_\_\__2$	hates					that	Maria	___	hates	
d.		$\_\_\__2$	[	who_2	Maria	$\_\_\__2$	hates	]		everyone	[	that	Maria	___	hates	]
e.	likes	$\_\_\__2$	[	who_2	Maria	$\_\_\__2$	hates	]	likes	everyone	[	that	Maria	___	hates	]

Similarities

Parasitic Gaps

(33) because Hans <u>the woman</u>$_1$ [without ____$_1$ looking at] ____$_1$ kissed has

Free Relatives

(34) Hans likes ____$_2$ [<u>who(ever)$_2$</u> Maria ____$_2$ hates]

Observation I

In parasitic gap constructions and in free relative constructions, there is an overt element that is associated with two gaps.

Structure

Parasitic gap

(35) because Hans the woman$_1$ [without ____ looking at] ____ kissed has

Free relative

(36) Hans likes ____ [who$_2$ Maria ____ hates]

Theory-internal problem

An overt element can only be associated with one gap. The association with a second gap must be modelled differently, invoking an additional assumption.

Structure

Parasitic gap

(35) because Hans the woman$_1$ [without ___ looking at] **t$_1$** kissed has

Free relative

(36) Hans likes ___ [who$_2$ Maria ___ hates]

Theory-internal problem

An overt element can only be associated with one gap. The association with a second gap must be modelled differently, invoking an additional assumption:
Two types of gaps:

1. **t**: *trace* (of movement)

Structure

Parasitic gap

(35) because Hans the woman$_1$ [without $\emptyset$ looking at] **t$_1$** kissed has

Free relative

(36) Hans likes ____ [who$_2$ Maria ____ hates]

Theory-internal problem

An overt element can only be associated with one gap. The association with a second gap must be modelled differently, invoking an additional assumption:
Two types of gaps:

1. **t**: *trace* (of movement)
2. $\emptyset$: covert element

Structure

Parasitic gap

(35) because Hans the woman$_1$ [$\emptyset$ without $t_\emptyset$ looking at] $\mathbf{t_1}$ kissed has

Free relative

(36) Hans likes ____ [who$_2$ Maria ____ hates]

Theory-internal problem

An overt element can only be associated with one gap. The association with a second gap must be modelled differently, invoking an additional assumption:

Two types of gaps:

1. **t**: *trace* (of movement)
2. $\emptyset$: covert element

Structure

Parasitic gap

(35) because Hans the woman$_1$ [$\emptyset$ without $t_\emptyset$ looking at] $\mathbf{t_1}$ kissed has

Free relative

(36) Hans likes ___ [who$_2$ Maria $\mathbf{t_2}$ hates]

Theory-internal problem

An overt element can only be associated with one gap. The association with a second gap must be modelled differently, invoking an additional assumption:
Two types of gaps:

1. **t**: *trace* (of movement)
2. $\emptyset$: covert element

Structure

Parasitic gap

(35) because Hans the woman$_1$ [$\emptyset$ without $t_\emptyset$ looking at] $\mathbf{t_1}$ kissed has

Free relative

(36) Hans likes $\emptyset$ [who$_2$ Maria $\mathbf{t_2}$ hates]

Theory-internal problem

An overt element can only be associated with one gap. The association with a second gap must be modelled differently, invoking an additional assumption:
Two types of gaps:

1. **t**: *trace* (of movement)
2. $\emptyset$: covert element

Parasitic gap

(35) because Hans the woman$_1$ [$\emptyset_1$ without $t_\emptyset$ looking at] $\mathbf{t_1}$ kissed has

Free relative

(36) Hans likes $\emptyset_2$ [who$_2$ Maria $\mathbf{t_2}$ hates]

Theory-internal problem

An overt element can only be associated with one gap. The association with a second gap must be modelled differently, invoking an additional assumption:
Two types of gaps:

1. **t**: *trace* (of movement)
2. $\emptyset$: covert element

Structure

Parasitic gap

(35) because Hans the woman$_1$ [$\emptyset_1$ without $t_\emptyset$ looking at] $\mathbf{t_1}$ kissed has

Free relative

(36) Hans likes $\emptyset_2$ [who$_2$ Maria $\mathbf{t_2}$ hates]

Theory-internal problem

An overt element can only be associated with one gap. The association with a second gap must be modelled differently, invoking an additional assumption: **Two types of gaps:**

1. **t**: *trace* (of movement)
2. $\emptyset$: covert element

(vgl. (Chomsky (1982); Engdahl (1983); Kayne (1983); Chomsky (1986); Cinque (1990); Nissenbaum (2000), Bresnan and Grimshaw (1978); Groos and Riemsdijk (1981))

Case matching effect

Parasitic gap

(37) because Hans the woman [without looking at] kissed has

Case matching effect

Parasitic gap

(37) because Hans the woman [without looking at] kissed$_{\textbf{acc}}$ has

Case matching effect

Parasitic gap

(37) because Hans the woman$_{\text{acc}}$ [___ without looking at] kissed$_{\text{acc}}$ has

Case matching effect

Parasitic gap

(37) because Hans <u>the woman</u>$_{\textbf{acc}}$ [____ without looking at$_{\textbf{acc}}$] kissed$_{\textbf{acc}}$ has

Case matching effect

Parasitic gap

(37) because Hans the woman$_{\textbf{acc}}$ [$\emptyset_{\textbf{acc}}$ without looking at$_{\textbf{acc}}$] kissed$_{\textbf{acc}}$ has

Case matching effect

Parasitic gap

(37) because Hans <u>the woman</u>$_{\mathbf{acc}}$ [$\emptyset_{\mathbf{acc}}$ without looking at$_{\mathbf{acc}}$] kissed$_{\mathbf{acc}}$ has

Free relative

(38) Hans likes [<u>who</u>(ever) Maria hates].

Case matching effect

Parasitic gap

(37) because Hans the woman$_{\textbf{acc}}$ [$\emptyset_{\textbf{acc}}$ without looking at$_{\textbf{acc}}$] kissed$_{\textbf{acc}}$ has

Free relative

(38) Hans likes [who(ever) Maria hates$_{\textbf{acc}}$].

Case matching effect

Parasitic gap

(37) because Hans the woman$_{\textbf{acc}}$ [$\emptyset_{\textbf{acc}}$ without looking at$_{\textbf{acc}}$] kissed$_{\textbf{acc}}$ has

Free relative

(38) Hans likes [who$_{\textbf{acc}}$(ever) Maria hates$_{\textbf{acc}}$].

Case matching effect

Parasitic gap

(37) because Hans the woman$_{\text{acc}}$ [$\emptyset_{\text{acc}}$ without looking at$_{\text{acc}}$] kissed$_{\text{acc}}$ has

Free relative

(38) Hans likes$_{\text{acc}}$ [who$_{\text{acc}}$(ever) Maria hates$_{\text{acc}}$].

Case matching effect

Parasitic gap

(37) because Hans the woman$_{\mathbf{acc}}$ [$\emptyset_{\mathbf{acc}}$ without looking at$_{\mathbf{acc}}$] kissed$_{\mathbf{acc}}$ has

Free relative

(38) Hans likes$_{\mathbf{acc}}$ $\emptyset_{\mathbf{acc}}$ [who$_{\mathbf{acc}}$(ever) Maria hates$_{\mathbf{acc}}$].

Case matching effects I

Parasitic gap

(39)

weil	Hans	___	Frau	[anstatt	zu	helfen]	behinderte
because	Hans	the	woman	instead.of	to	help	hampered

‘because Hans hampered the woman instead of helping her’

Case matching effects I

Parasitic gap

(39)

weil	Hans	___	Frau	[	anstatt	zu	helfen	]	behinderte$_{\textbf{acc}}$
because	Hans	the	woman		instead.of	to	help		hampered

‘because Hans hampered the woman instead of helping her’

Case matching effects I

Parasitic gap

(39)	weil	Hans	___	Frau	[anstatt	zu	helfen$_{dat}$]	behinderte$_{acc}$
	because	Hans	the	woman	instead.of	to	help	hampered

‘because Hans hampered the woman instead of helping her’

Case matching effects I

Parasitic gap

(39) weil Hans ***der**$_{\mathbf{dat}}$ Frau [anstatt zu helfen$_{\mathbf{dat}}$] behinderte$_{\mathbf{acc}}$
because Hans the woman instead.of to help hampered
'because Hans hampered the woman instead of helping her'

Case matching effects I

Parasitic gap

(39) weil Hans ***die**$_{\textbf{acc}}$ Frau [anstatt zu helfen$_{\textbf{dat}}$] behinderte$_{\textbf{acc}}$

weil	Hans	***die**$_{\textbf{acc}}$	Frau	[	anstatt	zu	helfen$_{\textbf{dat}}$	]	behinderte$_{\textbf{acc}}$
because	Hans	the	woman		instead.of	to	help		hampered

‘because Hans hampered the woman instead of helping her’

Case matching effects I

Parasitic gap

(39) weil Hans *die$_{acc}$ Frau [anstatt zu helfen$_{dat}$] behinderte$_{acc}$
because Hans the woman instead.of to help hampered
'because Hans hampered the woman instead of helping her'

weil	Hans	***die**$_{acc}$*	Frau	[anstatt	zu	helfen$_{dat}$]	behinderte$_{acc}$
because	Hans	the	woman	instead.of	to	help	hampered

(vgl. Fanselow (1993); Kathol (2001))

Case matching effects I

Parasitic gap

(39) because Hans **d-** woman [$\emptyset$ instead.of helping$_{\textbf{dat}}$] hampered$_{\textbf{acc}}$

Case matching effects I

Parasitic gap

(39) because Hans **the**$_{\textbf{acc}}$ woman [∅ instead.of helping$_{\textbf{dat}}$] hampered$_{\textbf{acc}}$

Case matching effects I

Parasitic gap

(39)

because Hans <u>**the**$_{\textbf{acc}}$</u> <u>woman</u> [$\emptyset_{\textbf{dat}}$ instead.of helping$_{\textbf{dat}}$] hampered$_{\textbf{acc}}$

Case matching effects I

Parasitic gap

(39)

because Hans **the**$_{\textbf{acc}}$ woman [$\emptyset_{\textbf{dat}}$ instead.of helping$_{\textbf{dat}}$] hampered$_{\textbf{acc}}$

Case matching effects I

Parasitic gap

(39)

because Hans **the**$_{acc}$ woman [$\emptyset_{dat}$ instead.of helping$_{dat}$] hampered$_{acc}$

Free relative

(40) Hans mag [___ (auch immer) Maria vertraut].
Hans like who ever Maria trusts
'Hans likes whoever Maria trusts.

Case matching effects I

Parasitic gap

(39) because Hans **the**$_{\textbf{acc}}$ woman [$\emptyset_{\textbf{dat}}$ instead.of helping$_{\textbf{dat}}$] hampered$_{\textbf{acc}}$

Free relative

(40) Hans mag [___ (auch immer) Maria vertraut$_{\textbf{dat}}$].
Hans like who ever Maria trusts
'Hans likes whoever Maria trusts.

Case matching effects I

Parasitic gap

(39)

because Hans **the**$_{\textbf{acc}}$ woman [$\emptyset_{\textbf{dat}}$ instead.of helping$_{\textbf{dat}}$] hampered$_{\textbf{acc}}$

Free relative

(40) Hans mag$_{\textbf{acc}}$ [____ (auch immer) Maria vertraut$_{\textbf{dat}}$].
Hans like who ever Maria trusts
'Hans likes whoever Maria trusts.

Case matching effects I

Parasitic gap

(39)

because Hans **the**$_{acc}$ woman [$\emptyset_{dat}$ instead.of helping$_{dat}$] hampered$_{acc}$

Free relative

(40) Hans mag$_{acc}$ [***wen**$_{acc}$ (auch immer) Maria vertraut$_{dat}$].
Hans like who ever Maria trusts
'Hans likes whoever Maria trusts.

Case matching effects I

Parasitic gap

(39)

because Hans **the**$_{\text{acc}}$ woman [$\emptyset_{\text{dat}}$ instead.of helping$_{\text{dat}}$] hampered$_{\text{acc}}$

Free relative

(40) Hans mag$_{\text{acc}}$ [✓**wem**$_{\text{dat}}$ (auch immer) Maria vertraut$_{\text{dat}}$].
Hans like who ever Maria trusts
'Hans likes whoever Maria trusts.

(vgl. Pittner (1995); Vogel (2001))

Case matching effects I

Parasitic gap

(39) because Hans **the**$_{\text{acc}}$ woman [$\emptyset_{\text{dat}}$ instead.of helping$_{\text{dat}}$] hampered$_{\text{acc}}$

Free relative

(40) Hans likes$_{\text{acc}}$ $\emptyset$ [**w-**(ever) Maria trusts$_{\text{dat}}$]

Case matching effects I

Parasitic gap

(39) because Hans **the**$_{acc}$ woman [$\emptyset_{dat}$ instead.of helping$_{dat}$] hampered$_{acc}$

Free relative

(40) Hans likes$_{acc}$ $\emptyset$ [**who**$_{dat}$(ever) Maria trusts$_{dat}$]

Case matching effects I

Parasitic gap

(39) because Hans **the**$_{acc}$ woman [$\emptyset_{dat}$ instead.of helping$_{dat}$] hampered$_{acc}$

Free relative

(40) Hans likes$_{acc}$ $\emptyset_{acc}$ [**who**$_{dat}$(ever) Maria trusts$_{dat}$]

Case matching effects I

Parasitic gap

(39) because Hans **the**$_{\text{acc}}$ woman [$\emptyset_{\text{dat}}$ instead.of helping$_{\text{dat}}$] hampered$_{\text{acc}}$

Free relative

(40) Hans likes$_{\text{acc}}$ $\emptyset_{\text{acc}}$ [**who**$_{\text{dat}}$(ever) Maria trusts$_{\text{dat}}$]

Case matching effects I

Parasitic gap

(39) because Hans **the**$_{acc}$ woman [$\emptyset_{dat}$ instead.of helping$_{dat}$] hampered$_{acc}$

Free relative

(40) Hans likes$_{acc}$ $\emptyset_{acc}$ [**who**$_{dat}$(ever) Maria trusts$_{dat}$]

Observation II

In one and the same language, parasitic gaps and free relatives can differ with respect to case matching effects.

Case matching effects I

Parasitic gap

(39) because Hans **the**$_{acc}$ woman [$\emptyset_{dat}$ instead.of helping$_{dat}$] hampered$_{acc}$

Free relative

(40) Hans likes$_{acc}$ $\emptyset_{acc}$ [**who**$_{dat}$(ever) Maria trusts$_{dat}$]

Observation II

In one and the same language, parasitic gaps and free relatives can differ with respect to case matching effects.

Case matching effects II

Polish

(41) a.

To	jest	dziewczyna,	___	Jan	lubił$_{acc}$	[zanim	zaczął	pomagać$_{dat}$	].
this	is	girl	which	Jan	liked	before	started	help	

Case matching effects II

Polish

(41) a. To jest dziewczyna, ***której$_{dat}$** Jan lubił$_{acc}$ [zanim zaczął pomagać$_{dat}$].
this is girl which Jan liked before started help

Case matching effects II

Polish

(41) a.

To	jest	dziewczyna,	✓ **który** $_{\textbf{acc}}$	Jan	lubił $_{\textbf{acc}}$	[zanim	zaczął	pomagać $_{\textbf{dat}}$].
this	is	girl	which	Jan	liked	before	started	help

Case matching effects II

Polish

(41)	a.	To	jest	dziewczyna,	✓**którą**$_{acc}$	Jan	lubił$_{acc}$	[zanim	zaczął	pomagać$_{dat}$].
		this	is	girl	which	Jan	liked	before	started	help
	b.	Jan	lubi$_{acc}$	[____	dokucza$_{dat}$].					
		Jan	likes	whoever	teases					

Case matching effects II

Polish

(41) a. To jest dziewczyna, ✓**który**$_{acc}$ Jan lubił$_{acc}$ [zanim zaczął pomagać$_{dat}$].
this is girl which Jan liked before started help

b. Jan lubi$_{acc}$ [***kogokolwiek**$_{acc}$ dokucza$_{dat}$].
Jan likes whoever teases

Case matching effects II

Polish

(41) a.

To	jest	dziewczyna,	✓**<u>którą</u>**$_{acc}$	Jan	lubił$_{acc}$	[zanim	zaczął	pomagać$_{dat}$].
this	is	girl	which	Jan	liked	before	started	help

b.

Jan	lubi$_{acc}$	[***<u>komukolwiek</u>**$_{dat}$	dokucza$_{dat}$].
Jan	likes	whoever	teases

Case matching effects II

Polish

(41) a. To jest dziewczyna, ✓**której**$_{acc}$ Jan lubił$_{acc}$ [zanim zaczął pomagać$_{dat}$].
this is girl which Jan liked before started help

b. Jan lubi$_{acc}$ [***komukolwiek**$_{dat}$ dokucza$_{dat}$].
Jan likes whoever teases

Citko (2013)

Case matching effects II

Polish

(41) a. To jest dziewczyna, ✓**która**$_{acc}$ Jan lubił$_{acc}$ [zanim zaczął pomagać$_{dat}$].
this is girl which Jan liked before started help

b. Jan lubi$_{acc}$ [***komukolwiek**$_{dat}$ dokucza$_{dat}$].
Jan likes whoever teases

Citko (2013)

Greek

(42) a. ____ voithise$_{acc}$ [horis na dosi$_{gen}$ hrimata]
which doctor helped without to give money

Case matching effects II

Polish

(41) a.

To	jest	dziewczyna,	✓**którą$_{acc}$**	Jan	lubił$_{acc}$	[zanim	zaczął	pomagać$_{dat}$].
this	is	girl	which	Jan	liked	before	started	help

b.

Jan	lubi$_{acc}$	[***komukolwiek$_{dat}$**	dokucza$_{dat}$].
Jan	likes	whoever	teases

Citko (2013)

Greek

(42) a.

***piou giatrou$_{gen}$**	voithise$_{acc}$	[horis	na	dosi$_{gen}$	hrimata]
which doctor	helped	without	to	give	money

Case matching effects II

Polish

(41) a. To jest dziewczyna, ✓**którą**$_{acc}$ Jan lubił$_{acc}$ [zanim zaczął pomagać$_{dat}$].
this is girl which Jan liked before started help

b. Jan lubi$_{acc}$ [***komukolwiek**$_{dat}$ dokucza$_{dat}$].
Jan likes whoever teases

Citko (2013)

Greek

(42) a. ***pion giatro**$_{acc}$ voithise$_{acc}$ [horis na dosi$_{gen}$ hrimata]
which doctor helped without to give money

Case matching effects II

Polish

(41) a. To jest dziewczyna, ✓**<u>która</u>**$_{acc}$ Jan lubił$_{acc}$ [zanim zaczął pomagać$_{dat}$].
this is girl which Jan liked before started help

b. Jan lubi$_{acc}$ [***<u>komukolwiek</u>**$_{dat}$ dokucza$_{dat}$].
Jan likes whoever teases

Citko (2013)

Greek

(42) a. ***<u>pion giatro</u>**$_{acc}$ voithise$_{acc}$ [horis na dosi$_{gen}$ hrimata]
which doctor helped without to give money

b. Efχarístisa$_{acc}$ [____ me voíθisan$_{nom}$.]
I thanked who me helped

Case matching effects II

Polish

(41) a. To jest dziewczyna, ✓**która**$_{acc}$ Jan lubił$_{acc}$ [zanim zaczął pomagać$_{dat}$].
this is girl which Jan liked before started help

b. Jan lubi$_{acc}$ [***komukolwiek**$_{dat}$ dokucza$_{dat}$].
Jan likes whoever teases

Citko (2013)

Greek

(42) a. ***pion giatro**$_{acc}$ voithise$_{acc}$ [horis na dosi$_{gen}$ hrimata]
which doctor helped without to give money

b. Efχarístisa$_{acc}$ [***ópji**$_{nom}$ me voíθisan$_{nom}$.]
I thanked who me helped

Case matching effects II

Polish

(41) a.

To	jest	dziewczyna,	✓**który** $_{acc}$	Jan	lubił $_{acc}$	[zanim	zaczął	pomagać $_{dat}$].
this	is	girl	which	Jan	liked	before	started	help

b.

Jan	lubi $_{acc}$	[***komukolwiek** $_{dat}$	dokucza $_{dat}$].
Jan	likes	whoever	teases

Citko (2013)

Greek

(42) a.

***pion giatro** $_{acc}$	voithise $_{acc}$	[horis	na	dosi $_{gen}$	hrimata]
which doctor	helped	without	to	give	money

b.

Efχarístisa $_{acc}$	[✓**ópjus** $_{acc}$	me	voíθisan $_{nom}$.]
I thanked	who	me	helped

(Daskalaki (2011), Artemis Alexiadou (p.c.))

Observations

Observation III

Across languages, parasitic gaps and free relatives can differ with respect to case matching effects.

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Observation II

In one and the same language, parasitic gaps and free relatives can differ with respect to case matching effects.

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Observation III

Across languages, parasitic gaps and free relatives can differ with respect to case matching effects.

(43) *Pattern: Mismatching of case*

	Greek	*Polish*
Parasitic gaps	*	✓
Free relatives	✓	*

Observations

Observation II

In one and the same language, parasitic gaps and free relatives can differ with respect to case matching effects.

Observation III

Across languages, parasitic gaps and free relatives can differ with respect to case matching effects.

(43) *Pattern: Mismatching of case*

	Greek	*Polish*
Parasitic gaps	(Agree) *	(no Agree) ✓
Free relatives	(no Agree) ✓	(Agree) *

Problems

Problem I

A unidirectional Downward Agree model forces us to model parasitic gaps and free relatives differently in different languages.

(44) *Pattern: Mismatching of case*

	Greek	*Polish*
Parasitic gaps	(Agree) *	(no Agree) ✓
Free relatives	(no Agree) ✓	(Agree) *

Problems

Problem I

A unidirectional Downward Agree model forces us to model parasitic gaps and free relatives differently in different languages.

Problem II

The distribution of case matching effects is coincidental and does not follow systematically.

(44) *Pattern: Mismatching of case*

	Greek	*Polish*
Parasitic gaps	(Agree) *	(no Agree) ✓
Free relatives	(no Agree) ✓	(Agree) *

Position of the probe causes variation

(45)

	Greek (α)	*Polish* ($\emptyset$)
Parasitic Gaps	α ... V_{acc} ... [$\emptyset$ ... V_{gen}]	α ... V_{acc} ... [$\emptyset$ ... V_{dat}]
Free Relatives	... V_{nom} ... $\emptyset$ [α ... V_{acc}]	... V_{acc} ... $\emptyset$ [α ... V_{dat}]

Derivation of the patterns by ordering operations

(46)

	Greek (α)	*Polish* ($\emptyset$)
Parasitic Gaps	α ... V_{acc} ... [$\emptyset$ ... V_{gen}]	α ... V_{acc} ... [$\emptyset$ ... V_{dat}]
Free Relatives	... V_{acc} ... $\emptyset$ [α ... V_{nom}]	... V_{acc} ... $\emptyset$ [α ... V_{dat}]

Derivation of the patterns by ordering operations

(46)

	Greek (α)	*Polish* ($\emptyset$)
Parasitic Gaps	α ... V_{acc} ... [$\emptyset_{\textbf{gen}}$ ... V_{gen}]	α ... V_{acc} ... [$\emptyset$ ... V_{dat}]
Free Relatives	... V_{acc} ... $\emptyset$ [α ... V_{nom}]	... V_{acc} ... $\emptyset$ [α ... V_{dat}]

Derivation of the patterns by ordering operations

(46)

	Greek (α)	*Polish* ($\emptyset$)
Parasitic Gaps	$\alpha_{\mathbf{acc}}$ ... V_{acc} ... [$\emptyset_{\mathbf{gen}}$ ... V_{gen}]	α ... V_{acc} ... [$\emptyset$ ... V_{dat}]
Free Relatives	... V_{acc} ... $\emptyset$ [α ... V_{nom}]	... V_{acc} ... $\emptyset$ [α ... V_{dat}]

Derivation of the patterns by ordering operations

(46)

	Greek (α)	*Polish* ($\emptyset$)
Parasitic Gaps	$\alpha_{\textbf{acc}}$ ... V_{acc} ... [$\emptyset_{\textbf{gen}}$ ... V_{gen}] *	α ... V_{acc} ... [$\emptyset$ ... V_{dat}]
Free Relatives	... V_{acc} ... $\emptyset$ [α ... V_{nom}]	... V_{acc} ... $\emptyset$ [α ... V_{dat}]

Derivation of the patterns by ordering operations

(46)

	Greek (α)	*Polish* ($\emptyset$)
Parasitic Gaps	$\alpha_{\textbf{acc}}$ ... V_{acc} ... [$\emptyset_{\textbf{gen}}$ ... V_{gen}]	α ... V_{acc} ... [$\emptyset_{\textbf{dat}}$ ... V_{dat}]
Free Relatives	... V_{acc} ... $\emptyset$ [α ... V_{nom}]	... V_{acc} ... $\emptyset$ [α ... V_{dat}]

Derivation of the patterns by ordering operations

(46)

	Greek (α)	*Polish* ($\emptyset$)
Parasitic Gaps	$\alpha_{\textbf{acc}}$ ... V_{acc} ... [$\emptyset_{\textbf{gen}}$ ... V_{gen}] *	α ... V_{acc} ... [$\emptyset_{\textbf{dat}}$ ... V_{dat}] ✓
Free Relatives	... V_{acc} ... $\emptyset$ [α ... V_{nom}]	... V_{acc} ... $\emptyset$ [α ... V_{dat}]

Derivation of the patterns by ordering operations

(46)

	Greek (α)	*Polish* ($\emptyset$)
Parasitic Gaps	$\alpha_{\textbf{acc}}$ ... V_{acc} ... [$\emptyset_{\textbf{gen}}$ ... V_{gen}] *	$\alpha_{\textbf{acc}}$ ... V_{acc} ... [$\emptyset_{\textbf{dat}}$ ... V_{dat}] ✓
Free Relatives	... V_{acc} ... $\emptyset$ [α ... V_{nom}]	... V_{acc} ... $\emptyset$ [α ... V_{dat}]

Derivation of the patterns by ordering operations

(46)

	Greek (α)	*Polish* ($\emptyset$)
Parasitic Gaps	$\alpha_{\mathbf{acc}}$ ... V_{acc} ... [$\emptyset_{\mathbf{gen}}$ ... V_{gen}] *	$\alpha_{\mathbf{acc}}$ ... V_{acc} ... [$\emptyset_{\mathbf{dat}}$ ... V_{dat}] ✓
Free Relatives	... V_{acc} ... $\emptyset$ [$\alpha_{\mathbf{nom}}$ ... V_{nom}]	... V_{acc} ... $\emptyset$ [α ... V_{dat}]

Derivation of the patterns by ordering operations

(46)

	Greek (α)	*Polish* ($\emptyset$)
Parasitic Gaps	$\alpha_{\textbf{acc}}$ ... V_{acc} ... [$\emptyset_{\textbf{gen}}$ ... V_{gen}] *	$\alpha_{\textbf{acc}}$ ... V_{acc} ... [$\emptyset_{\textbf{dat}}$ ... V_{dat}] ✓
Free Relatives	... V_{acc} ... $\emptyset$ [$\alpha_{\textbf{nom}}$ ... V_{nom}] ✓	... V_{acc} ... $\emptyset$ [α ... V_{dat}]

Derivation of the patterns by ordering operations

(46)

	Greek (α)	*Polish* ($\emptyset$)
Parasitic Gaps	$\alpha_{\textbf{acc}}$ ... V_{acc} ... [$\emptyset_{\textbf{gen}}$ ... V_{gen}] *	$\alpha_{\textbf{acc}}$ ... V_{acc} ... [$\emptyset_{\textbf{dat}}$ ... V_{dat}] ✓
Free Relatives	... V_{acc} ... $\emptyset_{\textbf{acc}}$ [$\alpha_{\textbf{nom}}$ ... V_{nom}] ✓	... V_{acc} ... $\emptyset$ [α ... V_{dat}]

Derivation of the patterns by ordering operations

(46)

	Greek (α)	*Polish* ($\emptyset$)
Parasitic Gaps	$\alpha_{\mathbf{acc}}$ ... $\mathrm{V}_{\mathrm{acc}}$ ... [$\emptyset_{\mathbf{gen}}$ ... $\mathrm{V}_{\mathrm{gen}}$] *	$\alpha_{\mathbf{acc}}$ ... $\mathrm{V}_{\mathrm{acc}}$ ... [$\emptyset_{\mathbf{dat}}$ ... $\mathrm{V}_{\mathrm{dat}}$] ✓
Free Relatives	... $\mathrm{V}_{\mathrm{acc}}$ ... $\emptyset_{\mathbf{acc}}$ [$\alpha_{\mathbf{nom}}$ ... $\mathrm{V}_{\mathrm{nom}}$] ✓	... $\mathrm{V}_{\mathrm{acc}}$ ... $\emptyset$ [$\alpha_{\mathbf{dat}}$ ... $\mathrm{V}_{\mathrm{dat}}$]

Derivation of the patterns by ordering operations

(46)

	Greek (α)	*Polish* ($\emptyset$)
Parasitic Gaps	$\alpha_{\mathbf{acc}}$ ... $\mathrm{V}_{\mathrm{acc}}$ ... [$\emptyset_{\mathbf{gen}}$ ... $\mathrm{V}_{\mathrm{gen}}$] *	$\alpha_{\mathbf{acc}}$ ... $\mathrm{V}_{\mathrm{acc}}$ ... [$\emptyset_{\mathbf{dat}}$ ... $\mathrm{V}_{\mathrm{dat}}$] ✓
Free Relatives	... $\mathrm{V}_{\mathrm{acc}}$ ... $\emptyset_{\mathbf{acc}}$ [$\alpha_{\mathbf{nom}}$ ... $\mathrm{V}_{\mathrm{nom}}$] ✓	... $\mathrm{V}_{\mathrm{acc}}$ ... $\emptyset_{\mathbf{acc}}$ [$\alpha_{\mathbf{dat}}$ ... $\mathrm{V}_{\mathrm{dat}}$]

Derivation of the patterns by ordering operations

(46)

	Greek (α)	*Polish* ($\emptyset$)
Parasitic Gaps	$\alpha_{\mathbf{acc}}$ ... V_{acc} ... [$\emptyset_{\mathbf{gen}}$ ... V_{gen}] *	$\alpha_{\mathbf{acc}}$ ... V_{acc} ... [$\emptyset_{\mathbf{dat}}$ ... V_{dat}] ✓
Free Relatives	... V_{acc} ... $\emptyset_{\mathbf{acc}}$ [$\alpha_{\mathbf{nom}}$ ... V_{nom}] ✓	... V_{acc} ... $\emptyset_{\mathbf{acc}}$ [$\alpha_{\mathbf{dat}}$ ... V_{dat}] *

Consequences

- The bidirectional Agree operation allows for more agreement configurations than a unidirectional Agree operation.
- The preference for Downward Agree that comes with the bottom-up nature of derivations will rule out a lot of unwanted configurations.
- In principle, Downward and Upward Agree should not differ with respect to locality: Non-local Agree can be ruled out with absolute locality constraints like the Phase Impenetrability Condition (PIC, Chomsky (2001)).

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