

Topics in the syntax-phonology interface: day 2

hypothesis: *phases* are the unit of the cycle for some processes
 (successive-cyclic movement, reference set for Merge and Move...)
 -->connect to Bresnan-style interleaving of phonology, syntax

- (1) A•sin m•lai kong•
 Asin not come KONG
-
- no tone sandhi tone sandhi! in final position!

Hsiao (2000):

- (2) a. ma• ma lau qua• [non-focused final pronoun]
 Mother keep me
 'Mother keeps me'
- b. ma• ma lau• qua [focused final pronoun]
 Mother keep me
 'Mother keeps ME'

So what are the phases?

Chomsky: CP, v*P

Legate: CP, vP

Svenonius: convergent XP (cross-linguistically variable in practice)

- because of the nature of Spell-out, domain will be expanded by head-movement

looking for more evidence: typological properties of languages with high verbs:

- SOV languages very often have wh-in-situ (Greenberg 1963)

- (3) a. Taroo-wa **nani** -o kaimasita ka? [Japanese]
 Taroo TOP what ACC bought Q
 'What did Taroo buy?'
- b. Bkrashis-lags-gi **kare** gzigsgnang-pa -red pas? [Tibetan]
 Tashi HON ERG what buy do PAST AGR Q
 'What did Tashi buy?'
- c. C'am^wit **mir** cəkərəcəm? [Chaha]
 C'am^wit what cooked
 'What did C'am^wit cook?'
- d. Ya um **hakiy** tuwa? [Hopi]
 Q you who-ACC found
 'Who did you find?'

- ergative languages are typically verb-peripheral
(Mahajan 1994 and references cited there)

- (4) a. X- Ø- s- watx'e naj hun -ti' [Jacaltec]
 ASP 3.ABS 3.ERG make he one this
 'He made this'
- b. Ni q'wələtəs t^θə səplíl æ səni/ [Halkomelem]
 AUX baked-3ERG the bread the woman
 'The woman baked the bread'
- c. Bkrashis -lags -gi gyag gzigs -gnang -pa -red [Tibetan]
 Tashi HON ERG yak buy do PAST AGR
 'Tashi bought a yak'
- d. Arna -p angut takuva -a [Inuit]
 woman ERG man see -3SG.3SG
 'The woman saw the man'

A quick review of Agree (Chomsky 2000, 2001)

Agree + EPP=Move

Agree between a Probe α and a Goal β :

- α , β must have a (possibly unvalued) feature in common
- α , β must both be Active (have an uninterpretable feature)
- β (the Goal) must be the closest instance of the relevant feature to α (the Probe)
- Maximize Matching: in each Agree relation, all features that can be checked must be checked
- Features on α will delete if β is ϕ -complete (and vice versa)

Activity condition:

(5) *Mary seems ___ is smart

:
 z ----- m

(6) *John seems to ___ [that Mary is smart]

:
 z ----- m

(7) *Who do you wonder [___ [Mary promoted ___]]?

:
 z ----- m z ----- m

[question: why wouldn't a wh-phrase be able to do the moves in (5-6)?]

Shortest Agree:

a ----- |
 ?

(8)* A man is [likely there to arrive ___]

[Activity + Shortest Agree=defective intervention constraints:]

(9) * Who do you wonder [why [Mary promoted ___]]

:
 z ----- m

Maximize Matching:

(10) is_φ^{EPP} [likely there to arrive a man]
z - - - - - m

(11)*A man is_φ^(EPP) [likely there to arrive ___]
z - - - - - m

Φ-completeness:

(12) The fish seems ___ to be likely ___ to be eaten ___
:
z - - m z - - - - - m z - - - - - m

(13) There were [some fish] caught

- Carstens (2001):

“φ-incompleteness” with checking: French

(14) Elle est morte
she is-3SG dead-FEM.SG
‘She died’

φ-completeness without checking: “hyper-raising” in Swahili

(15) **ni-** li- kuwa **ni-** ngali **ni-** ki- fanya kazi
1SG PAST be 1SG still 1SG IMPRF do work
‘I was still working’

(16) **ku-** li- kuwa **ku-** me- nyeshwa mvua
17 PAST be 17 PERF rain 9-rain
‘It had rained’

(17) mtindi **u-** li- kuwa **u-** me m vaa Abunuasi
3-brew 3 PAST be 3 PERF 3OBJ wear Abunuasi
‘Abunuasi was drunk’ (literally, “Brew had worn Abunuasi”)

...and now for the really complicated stuff

Object Shift

a ----- |
?

(18) Ça\$ lásu [íessar bækur] aldrei [neinir stúdentar] í fyrra ____ [Jonas 1996:37]
it read these books never any students last-year
'No students read these books last year'

- why doesn't the object block Agree between T and the subject?
- why isn't Object Shift allowed in English unless followed by wh-movement?

a ----- | a - |
?

(19) What did you [__ file __ [without reading PG]]?

hypothesis: Icelandic is just like English, except that it has an operation DISL(ocate) which raises the OS'ed object, and moves it into another dimension (see Holmberg 1999 for arguments that the OS'ed object is higher than Spec vP)

(20)

- a. [vP you file what]
a ----- |
?
- b. [vP what [you file ~~what~~]
a ----- |
- c. [TP T [vP what [you file ~~what~~]
a ----- |
- d. [CP [TP you T [vP what [~~you~~ file ~~what~~]

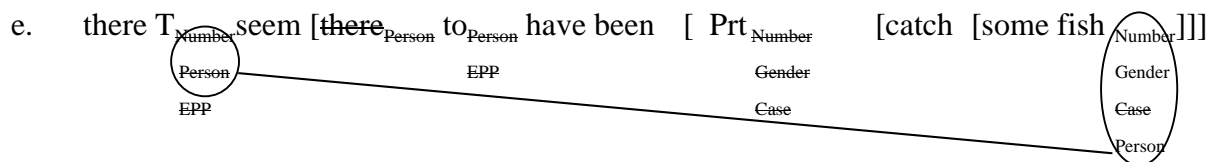
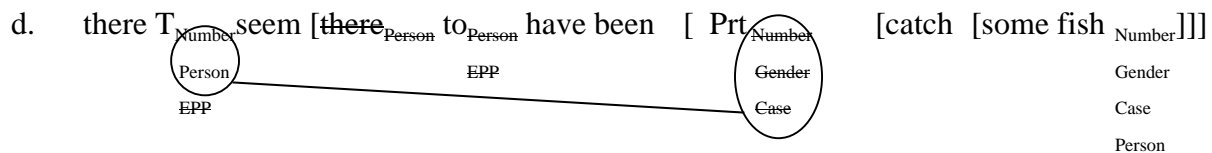
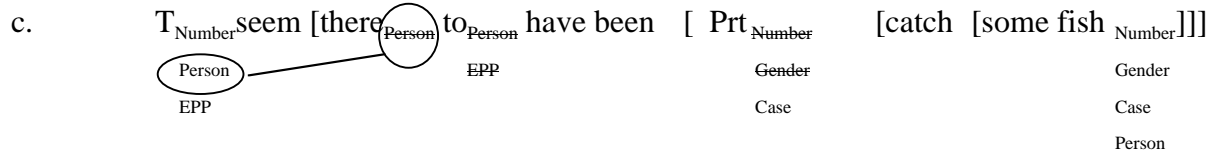
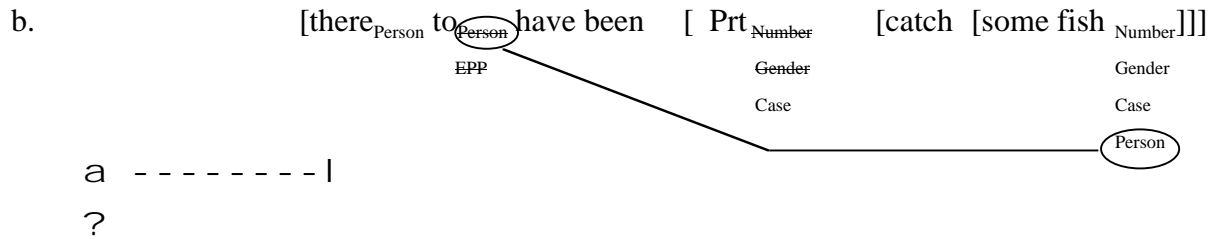
The Agree relation in (20c) violates Shortest Agree at the point in the derivation in (20c)--but not after the wh-movement in (20d).

-->locality is computed after the phase is over.

Icelandic participle agreement

(21) $\text{\textasciix{C}a\text{\textasciix{v}ir\text{\textasciix{s}ast\text{\textasciix{h}afa\text{\textasciix{v}erir\text{\textasciix{v}eiddir\text{\textasciix{ }nokkrir\text{\textasciix{f}iskar}$
 it seem have been caught-M.NOM.PL some fish-M.NOM.PL
 ‘There seem to have been caught [some fish]’

(22) $\text{\textasciix{V}ir\text{\textasciix{t}öldum\text{\textasciix{h}afa\text{\textasciix{v}erir\text{\textasciix{v}eidda\text{\textasciix{ }nokkra\text{\textasciix{f}iska}$
 we believe have been caught-M.ACC.PL some fish-M.ACC.PL
 ‘We believe there to have been caught [some fish]’



- (23d) is an example of “feature durability”; the Number feature on Prt can agree with T even though it has been “checked off”
- Closest Agree is satisfied in (23d) because only heads of chains intervene, and in (23e) (and maybe in (23d), too...) because of Maximize Match; the Person feature on T is allowed to look past Prt because there’s no Person there.

2 uses of phases that we've just seen:

- checked features are deleted at the phase (23d)
- locality is evaluated at the phase (20c-d)

Locality Issues

- do we have enough ways to circumvent locality?
 - Maximize Match (23e)
 - (• Only full chains intervene (23d))
 - phase-level evaluation of locality (20c-d)

Frampton et al (2000)

Max expected someone-ACC to be killed-ACC.SG.

[*Cambridge Icelandic*]

(24)

a. [Prt_{Number} [kill [someone_{Number}]]]

Gender Gender
Case Case
Person

b. [to_{Person} be [Prt_{Number} [kill [someone_{Number}]]]]

EPP Gender Gender
Case Case
Person

c. a ----- |
[someone_{Number} to_{Person} be [Prt_{Number} [kill [someone]]]]

Gender EPP Gender
Case Case
Person

d. [v_{Person} ... [someone_{Number} to_{Person} be [Prt_{Number} [kill [someone]]]]]

Gender EPP Gender
Case Case
Person

-->Case on Prt remains unvalued!

- transitivity of agreement? (Frampton et al 2000)
- careful use of occurrences? (Chomsky 2001b)
- special properties of Multiple Agree? (Chomsky 2001a, Hiraiwa 2001c)
- Activity is deleted at each phase? (phases will have to be defined carefully...)
- *someone* moves to Spec vP? (=Object Shift?)

- (24) a. I've believed John [for a long time now] ___ to be a liar
 b. * I've believed [for a long time now] John to be a liar

structurally similar kind of problem (Hiraiwa 2001c): Japanese ECM

(25)

- a. John-ga [Mary-ga eego-ga yoku dekiru to] omoikondeita
 John NOM Mary NOM English NOM well can that believed-falsely
 'John believed (falsely) that Mary can speak English well'
- b. John-ga [Mary-o eego-ga yoku dekiru to] omoikondeita
 John NOM Mary ACC English NOM well can that believed-falsely
- c. *John-ga [Mary-ga eego-o yoku dekiru to] omoikondeita
 John NOM Mary NOM English ACC well can that believed-falsely
- d. # John-ga [Mary-o eego-o yoku dekiru to] omoikondeita
 John NOM Mary ACC English ACC well can that believed-falsely

overt movement is demonstrably not forced by ECM in Japanese (Hiraiwa 2001c):

(26)

- a. Taro-ga *orokanimo* [Hanako-o baka da to] omotta
 Taro NOM stupidly Hanako ACC fool is that thought
- b. Taro-ga Hanako-o *orokanimo* [baka da to] omotta
 Taro NOM Hanako ACC stupidly fool is that thought
 'Taro stupidly thought that Hanako was a fool'
- c. Taro-ga *orokanimo* [dare-o baka da to mo] omowanakatta
 Taro NOM stupidly who ACC fool is that MO didn't-think
 'Taro didn't think stupidly that anyone was a fool'
- d. * Taro-ga dare-o *orokanimo* [baka da to mo] omowanakatta
 Taro NOM who ACC stupidly fool is that MO didn't-think
- e. Taro-ga dare-o *orokanimo* [baka da to] omoi mo sinakatta
 Taro NOM who ACC stupidly fool is that think MO didn't-do

--> v of the main clause can check Case on two DPs in the embedded clause ((26d))
 why doesn't the higher one induce a Defective Intervention Constraint?

same argument from Raising to Subject:

- (27) a. John-ga [mada Mary-ga kodomo-ni amaku] kanjita
 John NOM still Mary NOM children DAT lenient felt
 ‘Mary seems to John to be still lenient to children’
- b. John-ga [Mary -o/*ga kodomo-ni] omotta
 John NOM Mary ACC/NOM child DAT thought
- c. John-ga [yosooijooni nihonjin-ga eego-ga hidoku] kanjita
 John NOM than-expected Japanese NOM English NOM bad felt
 ‘It seemed to John that the Japanese are worse at speaking English
 than he had expected’

Hiraiwa (2001c): Multiple Agree: when a single Probe has multiple Goals, the Goals don’t interfere with each other.

reminiscent of “Subjacency Tax” phenomena:

(28) *English*

a. $\begin{matrix} a & \text{-----} & | \\ ? & & 1 \end{matrix}$
 a. ***Which book** did the senator deny $\begin{matrix} 1 \\ 1 \end{matrix}$
 the rumor that he wanted to ban ___ ?

b. $\begin{matrix} a & \text{-----} & | \\ ? & & 1 \end{matrix}$
 b. **Which senator** ___ denied $\begin{matrix} 1 \\ 1 \end{matrix}$
 the rumor that he wanted to ban *War and Peace*?

c. $\begin{matrix} a & \text{-----} & | \\ 1 & & 1 \\ ? & & 1 \end{matrix}$ $\begin{matrix} a & + & \text{-----} & | \\ ? & 1 & & 1 \end{matrix}$
 c. **Which senator** ___ denied $\begin{matrix} 1 \\ 1 \end{matrix}$
 the rumor that he wanted to ban **which book** ?

(29) *Japanese* (Watanabe 1992)

a ----- |
?

a. *Taroo -wa Hanako -ga **nani** -o katta ka dooka tazuneta no
Taroo TOP Hanako NOM what ACC bought whether asked Q
'What did Taroo ask [whether Hanako bought]?'

b. Taroo-wa Hanako -ga kuruma-o katta ka dooka
: Taroo TOP Hanako NOM car ACC bought whether
Z -- **dare** -ni tazuneta no?
who DAT asked Q

'Who did Taroo ask [whether Hanako bought a car]?'

a ----- |
?

c. Taroo-wa Hanako -ga **nani** -o katta ka dooka
: Taroo TOP Hanako NOM what ACC bought whether
Z -- **dare** -ni tazuneta no?
who DAT asked Q

'Who did Taroo ask whether Hanako bought what?'

(30) *Bulgarian* (Roumyana Izvorski, Ani Petkova, Roumyana Slabakova, p.c.)

a ----- |
? 1
a. ***Koja kniga** otrece senatora*t 1
which book denied the-senator 1

malva*ta ce iska da zabrani ____
the-rumor that wanted to ban

'Which book did the senator deny
[the rumor that he wanted to ban t]?'
a ----- |
?

b. **Koj senator** ____ otrece
which senator denied

malva*ta ce iska da zabrani Vojna i Mir
the-rumor that wanted to ban war and peace

'Which senator denied
the rumor that he wanted to ban *War and Peace*?'
a ----- |
1 a - + ----- |
? ? 1

c. **Koj senator** **koja kniga** ____ otrece 1
which senator which book denied 1

malva*ta ce iska da zabrani ____
the-rumor that wanted to ban

'Which senator denied the rumor that he wanted to ban which book?'

- possible conclusion: there's something special about a Probe with multiple Goals

“Feature durability” returns: Pesetsky and Torrego

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