# More movement

## 1 Japanese *wh*-questions

Japanese is a *wh*-in-situ language: *wh*-phrases do not need to move in *wh*-questions, unlike in English or German. Some data here from Huang and Ochi 2004 and Richards 2008.

(1) Kare-wa *nani*-o katta no?
he-TOP what-ACC bought Q
'What did he buy ___?'

(2) Taroo-wa [Hanako-ga *nani*-o katta to] omotta no?
Taro-TOP Hanako-NOM what-ACC bought that thought Q
'What did Taro think that Hanako bought ___?'

Japanese *wh*-arguments are not sensitive to islands in Japanese, suggesting that there is no movement involved:

(3) **Complex NP island (relative clause):**

Kimi-wa [Hanako-ga *dare*-ni ageta hon]-o yonda no?
you-TOP Hanako-NOM who-DAT gave book-ACC read Q
'Who did you read [the book that Hanako gave to ___]?'

(4) **Adjunct island:**

John-wa [uchi-de *dono hon*-o yonde kara] dekaketa no?
John-TOP home-at which book-ACC read after went.out Q
'Which book did John go out [after he read ___ at home]?'

Now consider *wh-the-hell* questions, which reflect the speaker's impatience or annoyedness. The part of *the hell* is played by *ittai* in Japanese.

(5) Kare-wa *ittai nani*-o katta no?
he-TOP ITTAI what-ACC bought Q
'What the hell did he buy ___?'

(6) Taro-wa [Hanako-ga kimi-ni *ittai nani*-o okutta to] omotta no?
Taro-TOP Hanako-NOM you-DAT ITTAI what-ACC sent that thought Q
'What the hell did Taro think that Hanako sent ___ to you?'

*Ittai-wh* is island-sensitive, in contrast to regular *wh*-arguments (Hoji, 1985; Pesetsky, 1987; Hagstrom, 1998; Huang and Ochi, 2004):

(7) **Complex NP island (relative clause):**

* Kimi-wa [Hanako-ga *ittai* *dare*-ni ageta hon]-o yonda no?
you-TOP Hanako-NOM ITTAI who-DAT gave book-ACC read Q
Intended: 'Who the hell did you read [the book that Hanako gave to ___]?'

(8) **Adjunct island:**

* John-wa [uchi-de *ittai* *nani*-o yonde kara] dekaketa no?
John-TOP home-at ITTAI what-ACC read after went.out Q
'What the hell did John go out [after he read ___ at home]?'

**Fun fact:** Mandarin Chinese has a similar pattern, with *daodi* making *wh*-arguments island-sensitive. See Huang and Ochi 2004.

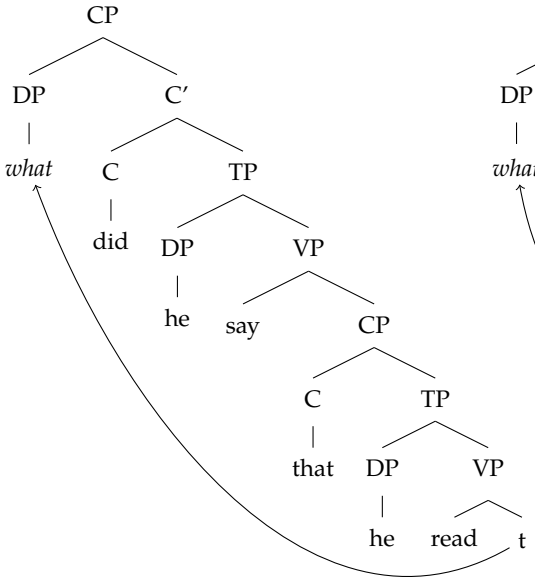
## 2 Successive cyclic movement

Recall that *wh*-movement is unbounded:

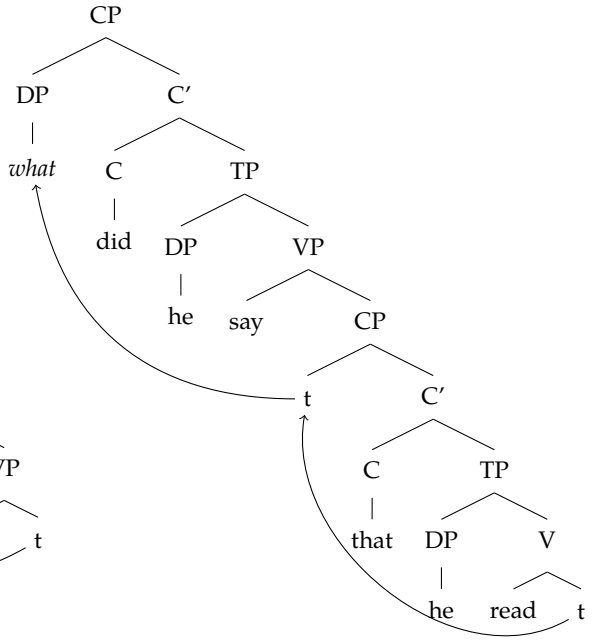
(9) What did he say that he read ___?

(10) Two possible (simplified) derivations for (9):

a. "One fell swoop"




b. "Successive cyclic movement"



## 2.1 6 arguments for successive cyclic movement through intermediate CP edges[1]

1. Quantifier float/stranding in West Ulster English (McCloskey, 2000):

   (11) **West Ulster English:**

   a. *What* **all** do you think (that) he'll say (that) we should buy ___?

   b. *What* do you think **all** (that) he'll say (that) we should buy ___?

   c. *What* do you think (that) he'll say **all** (that) we should buy ___?

   d. *What* do you think (that) he'll say (that) we should buy **all**?

2. Pronunciation of intermediate positions:

   (12) **Child English:** (exx Crain and Lillo-Martin, 1999: 238)

   a. *What* do you think *what* Cookie Monster eats? (age 5;0)

   b. *Who* do you think *who* Grover wants to hug? (age 4;9)

   c. *What* do you think *what*'s in that box? (age 3;3)

3. Condition A reconstruction (Barss, 1986):

   Recall the locality conditions on Condition A:

   (13) a. Mary$_j$ bought a picture of herself$_j$.

   b. * John$_i$ said [$_{CP}$ that Mary$_j$ bought a picture of himself$_i$].

   Consider a reflexive pied-piped in the *wh*-phrase: (exx from Norvin Richards notes)

   (14) a. [Which picture of herself$_j$] did Mary$_j$ buy?

   b. [Which picture of herself$_j$] did John$_i$ say that Mary$_j$ bought?

   c. [Which picture of himself$_i$] did John$_i$ say that Mary$_j$ bought?

[1] Based on a handout by Jason Merchant.

4. Partial *wh*-movement: (aka *wh*-scope marking, *wh*-expletives)

(15) **German:** (see McDaniel, 1988)

*Was* glaubst du, mit *wem* er gesprochen hat?
what think you with whom he spoken has

'With whom do you think that he spoke?'

(16) **Hungarian:** (Horvath, 1997)

*Mit* gondolsz, hogy *kit* látott János?
what.ACC you.think that who.ACC saw.3SG J.NOM

'Who do you think that Janos saw?'

(17) **Child English:** (from Jason Merchant: age 4;3)

*What* your [t]hink *who* made [t]his? (with genitive matrix subject)

5. Successive inversion:

(18) **Belfast English:**

a. Who did John hope [would he see ___]?

b. What did Mary claim [did they steal ___]?

c. I wonder what [did John think [would he get ___]]?

d. Who did John say [did Mary claim [had John feared [would Bill attack ___]]]?

6. *Wh*-agreement on C:

(19) **Irish declaratives:** (all Irish data from McCloskey 1979)

a. Deir sé [go dtuigeann sé an scéal].
says he C understands he the story
'He says that he understands the story.'

b. Dúirt sé [gur bhuail tú é].
said he C struck you him
'He said that you struck him.'

(20) **Irish *wh*-questions:**

a. Cén fear a$^{L}$ thiteann go talamh
which man C falls to earth
'Which man falls to earth?'

b. Cé a$^{L}$ bhuail tú?
who C struck you
'Who did you hit?'

c. Cé a$^{L}$ mheas tú a$^{L}$ chonaic tú?
who C thought you C saw you
'Who did you think that you saw?'

## 2.2 Phases

Chomsky 2000, 2001: Syntactic structure is built in "chunks," called *phases*.

- For something to move long-distance, it must move to the edge of each phase.
- CPs are phases, forcing successive cyclic movement through CP edges, as we saw above.
- *v*P are phases.[2] We therefore might expect successive-cyclic movement to occur through *v*P edges too.

Dinka is a Nilotic language of South Sudan (Van Urk and Richards, 2015). It is V2: a constituent is in initial position, followed by the auxiliary, with the main verb lower down.

There's a lot to say about *wh*-movement in Dinka, but today we will focus on *the immediately preverbal position*, which seems to show its own V2-like requirement.

(21) **Dinka immediately preverbal position must be filled by some non-subject:**

a. ɣɛ̀n cí [ **Ayén** yiẹ̈n kitàp.
I PRF Ayen give book
'I gave Ayen a book.'

b. ɣɛ̀n cí [ **kitàp** yiẹ̈n Ayén.
I PRF book give Ayen
'I gave Ayen a book.'

a′. * ɣɛ̀n cí [ ___ yiẹ̈n Ayén kitàp.
I PRF give Ayén book

b′. * ɣɛ̀n cí [ ___ yiẹ̈n kitàp Ayén.
I PRF give book Ayen

a″. * ɣɛ̀n cí [ **Ayén kitàp** yiẹ̈n.
I PRF Ayén book give

b″. * ɣɛ̀n cí [ **kitàp Ayén** yiẹ̈n.
I PRF book Ayen give

(22) **Direct and indirect object extraction requires empty preverbal position:**

a. *Yeŋà* cíi mòc [ ___ yiẹ̈n kitàp?
who PRF.NS man give book
'Who did the man give the book to?'

b. *Yeŋǫ́* cíi mòc [ ___ yiẹ̈n Ayén?
what PRF.NS man give Ayen
'What did the man give to Ayen?'

a′. * *Yeŋà* cíi mòc [ **kitàp** yiẹ̈n?
who PRF.NS man book give

b′. * *Yeŋǫ́* cíi mòc [ **Ayén** yiẹ̈n?
what PRF.NS man Ayen give

Similarly, long-distance extraction requires intermediate Spec,CP (clause-initial positions) to be empty. (Embedded clauses are also V2.)

(23) **Subject extraction requires Spec,CP but not preverbal position to be empty:**

*Yeŋà* cúkkú luéel, [$_{CP}$ ___ cíi [$_{vP}$ **kitàp** ɣɔ̀oc?
who PRF.1pl say PRF.NS book buy
'Who did we say bought a book?'

The immediately preverbal position is Spec,*v*P. The subject is generated above this position.

[2] Originally, it was claimed that unaccusative and passive *v*P are not phases, but I assume here that all *v*P are phases.

Extraction of non-subject arguments must move through Spec,*v*P.

(24) **Extraction of plurals triggers obligatory *ke*-stranding:**

a. *Yeŋà* cíi Bôl [$_{vP}$ ___ tn̤ŋ?
who PRF.NS Bol.GEN see
'Who did Bol see?'

b. *Yèyîŋa* cíi Bôl [$_{vP}$ ***(ké)** tn̤ŋ?
who.PL PRF.NS Bol.GEN PL see
'Who all did Bol see?'

(25) **Long-distance object *wh*-movement ⇒ *ke* in each intermediate *v*P edge:**

a. *Yeŋà* yɛ̤ [$_{vP}$ ___ tàak [$_{CP}$ cíi Bôl [$_{vP}$ ___ tn̤ŋ?
who IMPF.2sg think PRF.NS Bol.GEN see
'Who do you think Bol saw?'

b. *Yèyîŋa* yɛ̤ [$_{vP}$ ***(ké)** tàak [$_{CP}$ cíi Bôl [$_{vP}$ ***(ké)** tn̤ŋ?
who.PL IMPF.2sg PL think PRF.NS Bol.GEN PL see
'Who all do you think Bol saw?'

(26) **Long-distance subject *wh*-movement ⇒ *ke* at higher but not lower *v*P edge:**

[*Ye kɔ̂ɔc-kó*] yṳ̀kkṳ̀ **kê** tàak, [$_{CP}$ càm [$_{vP}$ ___ cun̤?
[Q people-which] IMPF.1pl PL think eat food
'Which people do we think are eating food?' (Coppe van Urk, p.c.)

Dinka *ké* shows the "footprint" of movement of plurals at the *v*P edge (cf West Ulster English *all*-stranding).

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