

Conditions on Wh-movement, Mad Libs style¹

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- (1) a. Which shelf did Mary say that she should put the book on ___ ?
b. Which shelf did Mary ask whether she should put the book on ___ ?
c. Which shelf did Mary ask which book she should put on ___ ?

Wh-Island Condition: A(n) _____ clause is an island for extraction
ADJECTIVE(S)

("island"="thing from which extraction is impossible". Imagine that wh-phrases cannot swim)

- (2) a. What did they [eat ___]?
b. What did they [eat ___] and [drink milk]?
c. What did they [eat ___] and [drink ___]?

Coordinate Structure Constraint: When two XPs are coordinated, _____.
MAIN CLAUSE

- (3) a. Who did you buy [a picture of ___]?
b. Who did [a picture of ___] fall off the wall?
c. Who did [a picture of ___] land on your head?

- (4) a. Who do you think that [we should hire ___]?
b. Who does [that we hired ___] surprise you?
c. Who do you think that [if we hire ___], we'll get rich?

Condition on Extraction Domains (CED): DPs and CPs which are _____
SYNTACTIC POSITION
can be extracted from; DPs and CPs which are _____ cannot be.
SYNTACTIC POSITION

- (5) a. Who ___ bought what?
b. What did who buy ___ ?

- (6) a. What did you give ___ to whom?
b. Who did you give what to _____ ?

Superiority: when there are multiple wh-phrases, _____.
MAIN CLAUSE

- (7) a. What do you believe [that John bought ___]?
b. What do you believe [Mary's claim that John bought ___]?
c. What did Mary resent [our claim that John had bought ___]?

Complex NP Constraint: A(n) _____ is an island.
DESCRIPTION OF SYNTACTIC CONFIGURATION

¹ judgments suppressed, statements of principles left blank

Another possibly relevant fact:

- (8) a. I baked Mary a cake.
b. Mary was baked ___ a cake.
c. A cake was baked Mary ___.

_____ (covers _____):
NEW CONSTRAINT NAME PREVIOUSLY POSITED CONSTRAINTS

STATEMENT OF NEW CONSTRAINT

Some data about intersecting wh-dependencies:

- (9) a. What are you wondering who ___ bought ___?
b. Who are you wondering what ___ bought ___?
- (10) a. Who are you wondering what to persuade ___ to buy ___?
b. What are you wondering who to persuade ___ to buy ___?

Path Containment Condition: if two wh-paths overlap, they must _____
VERB

(we can derive this from _____, plus _____)
CONSTRAINT PRINCIPLE

Some data from a language (Bulgarian) which does more wh-movement than English does:

- (11) a. Koi kakvo kupi?
who what bought
'Who bought what?'
b. * Kakvo koi kupi?

Consider a tree for (11):

- but wh-movement doesn't always happen?

- (16) a. Taroo-wa *nani -o* katta no? [Japanese]
 Taroo TOP what ACC bought Q
 'What did Taroo buy?'
- b. Bkrashis-lags-gi *gare* gzigs-gnang-pa -red pas? [Tibetan]
 Tashi HON ERG what buy do PAST AGR Q
 'What did Tashi buy?'
- c. C'am^wit *mir* cək^wərəcniŋ? [Chaha]
 C'am^wit what cooked
 'What did C'am^wit cook?'
- d. Qiaofong mai -le *sheme* (ne) [Chinese]
 Qiaofong buy ASP what Q
 'What did Qiaofong buy?'
- e. Ya um *hakiy* tuwa? [Hopi]
 Q you who-ACC found
 'Who did you find?'

- possibility 1: there is no wh-movement in these languages.
- possibility 2: there is wh-movement, but it's hard to see.

Some languages have multiple options...

- (17) a. bí:ká dig *ká b^wā:* [Buli]
 the.child cooked KA **what**
 'What did the child cook?'
- b. bí:ká tè *ká wānā* lāmmú:
 the.child gave KA **who** the.meat
 'Who did the child give the meat to?'
- c. bí:ká dig lāmmú *ká bē:*
 the.child cooked the.meat KA **where**
 'Where did the child cook the meat?'
- (18) a. *ká b^wā* āti bí:ká digi:
 KA **what** C the.child cooked
 'What did the child cook?'
- b. *ká wà fōtō kūnā* ati wà jà:
 KA **his picture which** C he saw
 'Which picture of him did he see?'

Buli islands...

- (19) a. *Fí áyáalí [núrpók wāi āli dà **ká b"ā** lá:]?
you love woman who C bought **KA what** PRT
'What do you love [the woman who bought __]?'
- b. * Azuma dà [gbáŋ ālī **ká b"ā**]?
Azuma bought book and **KA what**
'What did Azuma buy [a book and __]?'
- c. *bí:ká à lā [John ali dà **ká b"ā** la jīŋ a]
child AUX laugh John ALI bought **KA what** PRT because
'What is the child laughing [because John bought __]?'

How to escape the islands...

- (20) a. Fí áyáalí **ká** [núrpók wāi āli dà **b"ā** lá:]?
you love **KA** woman who C bought **what** PRT
'What do you love [the woman who bought __]?'
- b. Azuma dà **ká** [gbáŋ ālī **b"ā**]?
Azuma bought **KA** book and **what**
'What did Azuma buy [a book and __]?'
- c. bí:ká à lā **ká** [John ali dà **b"ā** la jīŋ a]
child AUX laugh **KA** John ALI bought **what** PRT because
'What is the child laughing [because John bought __]?'

Meanwhile, in languages with no *ka*...

- (21) a. Mary shuo [John mai **shenme**]?
Mary say John buy what
'What did Mary say that John bought?'
- b. Mary [zai John mai **shenme** yihou] shengqi le?
Mary at John buy what after get.angry Perf
'What did Mary get angry after John bought?'
- c. Mary zui xihuan [mai **shenme** de ren]?
Mary most like buy what C person
'What does Mary like the person who bought?'
- (22) a. Mary-wa [John-ga **nani**-o yonda to] itta no?
Mary TOP John NOM what ACC read that said Q
'What did Mary say that John read?'
- b. Mary-wa [John-ga **nani**-o yondara] okoru no?
Mary TOP John NOM what ACC read-if get-angry Q
'What will Mary get angry if John reads?'
- c. Mary-wa [**nani**-o yonda] hito-to atta no?
Mary TOP what ACC read person-with met Q
'What did Mary meet a person who read?'

on the other hand...

- (23) a. Mary shuo [John **weishenme** mai shu]?
Mary say John why buy book
'What's the reason X such that Mary said that John, for X, bought the book?'
- b.* Mary [zai John **weishenme** mai shu yihou] shengqi le?
Mary at John why buy book after get.angry Perf
'What's the reason X such that Mary got angry after John, for X, bought a book?'
- c.* Mary zui xihuan [**weishenme** mai shu de ren]?
Mary most like why buy book C person
'What's the reason X such that Mary likes the person who, for X, bought the book?'
- (24) a. Mary-wa [John-ga sono hon-o **naze** yonda to] itta no?
Mary TOP John NOM that book ACC why read that said Q
'What's the reason X such that Mary said that John, for X, read that book?'
- b.* Mary-wa [John-ga sono hon-o **naze** yondara] okoru no?
Mary TOP John NOM that book ACC why read-if get-angry Q
'What's the reason X such that Mary will get angry if John, for X, reads that book?'
- c.* Mary-wa [sono-hon -o **naze** yonda] hito-to atta no?
Mary TOP that book ACC why read person-with met Q
'What's the reason X such that Mary met a person who, for X, read that book?'

something not unlike *ka* in Japanese?

- (25) a. Mary-wa [John-ga **ittai** **nani-o** yonda to] itta no? [Japanese]
Mary TOP John NOM on.earth what ACC read that said Q
'What on earth did Mary say that John read?'
- b.* Mary-wa [John-ga **ittai** **nani-o** yondara] okoru no?
Mary TOP John NOM on.earth what ACC read-if get-angry Q
'What on earth will Mary get angry if John reads?'
- c.* Mary-wa [kyonen **ittai** **nani-o** yonda] hito-to atta no?
Mary TOP last.year on.earth what ACC read person with met Q
'What on earth did Mary meet a person who read last year?'
- (26) a. Mary-wa **ittai** [John-ga **nani-o** yondara] okoru no?
Mary TOP on.earth John NOM what ACC read-if get-angry Q
'What on earth will Mary get angry if John reads?'
- b. Mary-wa **ittai** [kyonen **nani-o** yonda] hito-to atta no?
Mary TOP on.earth last.year what ACC read person with met Q
'What on earth did Mary meet a person who read last year?'