

Islands in the Modern World*
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1. Introduction

Two well-motivated aspects of syntactic theory

(1) Consequences of Phase Theory (for movement)

- a. Extraction from a phase Φ is possible only from Spec, Φ P.
- b. Phases include full clauses and nominals.

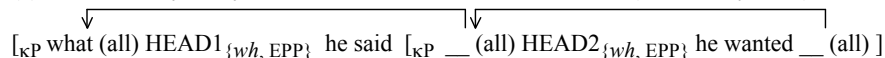
(2) Attractor Hypothesis for Movement

- Internal merge of β forming Spec, α P is possible only if ...
- (i) an unvalued feature F on α (the *attractor*) undergoes Agree with F on β ; and
- (ii) F on α has an EPP subfeature.
- ... and F later deletes if uninterpretable,

A standard boast: Phase Theory accounts for islands.

Actual achievement: An account of *wh-islands* (including **relative clause islands**), and a rationale for successive-cyclicity of extraction from declarative CP.

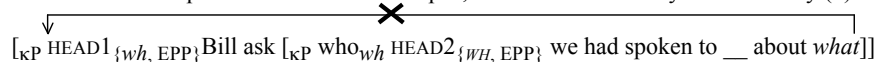
(3) Successive cyclicity of extraction from declarative clause (McCloskey 2000).¹



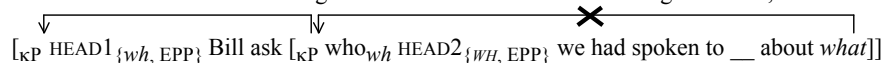
(4) Wh-island condition

?*What did Bill ask [who we had spoken to ___ about ___]?

a. One-step movement of *what* to Spec,HEAD1 is blocked by Phase Theory (1)



b. Two-step movement of *what* via Spec,HEAD2 would satisfy (1), but is not possible because the attracting feature *w* is valued after interacting with *who*, and deletes.



* This is version 2.0 of work I have presented in earlier versions at MIT, at a LOT Summer School, the University of Illinois/Chicago and elsewhere. I am grateful to those audiences for comments that have improved this version. I am particularly grateful to Juliet Stanton for discussion that led to a significant improvement in the treatment of the Subject Island Condition.

¹ I use the provisional label κ P rather than CP to designate full clauses because the category to which full clauses belong will be at issue.

A non-achievement: No obvious explanation for other island phenomena that share properties with the *wh*-island constraint, and therefore are likely to have some connection to Phase Theory.

Complex NP Constraint (CNPC)

(5) CNPC: no extraction from a clausal complement to N

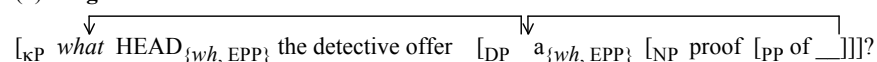
- a. *You'll never guess who Wikileaks is going to publish
[_{DP} [_{NP} evidence [_{κP} that diplomats have bribed ___]]].
- b. *Where did the detective offer [_{DP} a [_{NP} proof [_{κP} that Sue hid the weapon ___]]]?
- c. *When was Mary surprised at [_{DP} our [_{NP} certainty [_{κP} that Bill had left home ___]]]?

Why phase theory falls short of explaining the CNPC:

If DP and κ P are phases, then movement must proceed through both Spec,DP and Spec, κ P. In principle, CNPC violations like (5a-c) might be excluded if either D or κ fails to allow specifier-forming movement. However...

- ...the head of declarative κ P *may trigger movement* forming Spec, κ P, as seen in (3).
- ...if DP is a phase, D *must also be able to trigger movement* forming Spec,DP, given the possibility of extraction from a PP complement to N, as seen in (6):

(6) No general ban on extraction from DP



Subject Island Condition

(7) Subject Island Condition [(Ross 1967, 241ff); Chomsky (1973/1977, 108)]:

no extraction from a nominal or clausal Spec,TP

- a. *I can't imagine who [[_{κP} that diplomats have bribed ___] could shock Mary any more].
- b. *I can't imagine who [[_{DP} bribery of ___] could shock Mary any more].

Why phase theory falls short of explaining the Subject Island Condition:

Extraction may proceed via Spec, κ P or Spec,DP without running afoul of (1) — no matter where κ P or DP is merged. No other phases are crossed in Subject Island Condition violations that would not be crossed in extracting from a complement.

A shift of perspective implicit in (1) and (2)

(but not much explored)

If extraction of α takes place from a phase Φ ...

- **What Phase theory says:**
 α must first move to Spec, Φ P.
- **What the Attractor Hypothesis therefore entails:**
 Φ must have unvalued features **F** that undergo Agree with F on α , and later delete

... then:

- **Perspective:**
What look like "dynamic" (island) constraints on extraction from Φ P might actually be "static" constraints sensitive to the featural content of Φ after Agree and Move.
- **Example 1:**
CNPC effects might reflect not an inability to extract from a clausal complement to N — but an incompatibility between N and *any* phasal complement whose head has undergone the kind of metamorphoses associated with movement to and/or through its Spec. And indeed we know independently that N is picky about its complements.
- **Example 2:**
Subject Island Condition effects might reflect not an inability to extract *out of* Spec,TP — but an incompatibility between T that seeks a phasal specifier and these same metamorphoses. And indeed we know independently that T is picky about its specifiers.

2. What P needs

P requires that its complement bear φ :²

- (8) ***Declarative finite or infinitival CP as complement to P**
- *Mary talked [about [that Bill bought a new car].
 - *We have to deal [with [\emptyset Bill is not here]].
 - *John is counting [on [for Sue to repay the loan].
- (9) **constraint is not case-theoretic, but concerns the complement to P:**
prepositional ECM
- [With [[that Bill bought a car] no longer a secret], we can stop debating his character.
 - [With [[for him to repay the loan] still an option], there's no reason to consider legal action yet.

² Other languages, e.g. Italian and Icelandic, do not appear to show this constraint. I have not explored explanations for this variation or its consequences at present.

- **What English P requires of its complement:** φ
- **Why *[P declarative-CP]:** declarative CP lacks φ -features

Declarative CP lacks φ

- (10) ***plural agreement with conjoined declarative CPs (McCloskey 1991)**
- That the position will be funded and that Mary will be hired now \checkmark seems/*seem likely.
 - That the shares are overvalued and that a decline is in order \checkmark is/*are widely believed on Wall St.
- (11) ***plural anaphora with conjoined declarative CPs**
Maybe you believe [_{CP1} that Mary will read this book] and [_{CP2} that John will read that one]. But I am not so sure about { \checkmark it/ \checkmark that/*them/*those}_{CP1+2}
- (12) ***pro-drop with (non-subject) CP antecedent (Iatridou & Embick 1997):**
So [_{CP} che dei colleghi_i hanno intervistato Valentino Rossi], e penso ...
I.know that some colleagues_i have interviewed Valentino Rossi, and I.think ...
- ... che *pro*_i lo rivedranno poi alla gara.
... that they_i him will.see.again then at-the race
 - ... che *pro*_{?CP} abbia sorpreso molto il capo.
... that it_{CP} has.SUBJ surprised much the boss (Zamparelli 2008)

Interrogative CP bears φ

- **P accepts an interrogative clause as its complement.**

- (13) **\checkmark wh-interrogative clause as complement to P**
- Inquiries [into [where that bus was heading]] are still proceeding.
 - Mary was curious [about [how the meeting had gone]].
 - John's knowledge [of [when these events took place]] is unparalleled.

- **Proposal: an interrogative clause bears a φ -feature "W"**
— absent from its declarative counterpart.

What is W?

- **It does not support agreement or anaphora, so though it belongs to the ϕ -feature family, it is not bundled with number or person:**

- (14) *plural agreement/anaphora with conjoined interrogative CPs
- [Where that bus was heading] and [how the meeting went] \checkmark is/*are unknown.
 - Mary asked [₁ where that bus was heading] and [₂ how the meeting went]. Sue was also curious about { \checkmark it/ \checkmark that/*them/*those}₁₊₂.

Proposal: W is the feature that triggers \bar{A} -movement to the periphery of a phase.

Is W a feature of C in an embedded question, or is it an independent head?

- **Clauses that do not need case-licensing (finite & infinitival) can host an embedded question ...**

- (15) \checkmark finite and infinitival embedded questions
- Bill asked [when John was leaving for Brasilia].
 - Mary knows [how to get to Brasilia by car].

- **... but a gerundive clause that needs case-licensing or a DP cannot host an embedded question ...**

(16) *gerund and DP embedded questions

- *Sue asked (about) [when {John/John's} leaving for Brasilia].
- *Mary asked [when [John's departure ___]]. ('Mary asked when John was leaving.')

compare: John's departure last Thursday (NP has a temporal position...)
[Whose departure when] did he mention? (...which may be filled by *when*)

- (17) **DP does support interrogative interpretation (concealed questions; Grimshaw 1977)**
- Mary asked [the exact time of John's departure]

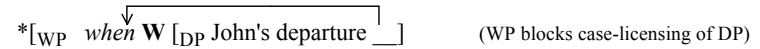
- **Conclusion: W is a phasal independent head that hosts *wh*-movement — but blocks case-licensing of its complement.**

- (18) **The structure of *wh*-interrogatives: WP embedding a CP-complement:**



- (19) **Embedded questions are WPs ...**
- Bill asked [_{WP} when W [_{CP} C John was leaving for Brasilia _]].
 - *Mary asked [_{WP} when W [_{DP} John's departure ___]]. (WP blocks case to DP)
- (20) **... including embedded questions as complements to P**
- Inquiries [into [_{WP} where W [_{CP} C that bus was heading]]] are still proceeding.
 - Mary was curious [about [_{WP} how W [_{CP} C the meeting had gone]]].
 - John's knowledge [of [_{WP} when W [_{CP} C these events took place]]] is unparalleled.

- (21) **The impossibility of a nominal *wh*-interrogative (cf. (16b))**



Side remark: WP is a ϕ -bearer, but is not a DP. For example:

- (22) **WP does not itself need case-licensing**
- Bill was curious {/*DP, \checkmark [when John was leaving for Brasilia] }.
 - It is unclear {/*DP, \checkmark [how to get to Brasilia by car] }.

3. What N needs

- **The traditional view: The complementation requirements of N are regulated solely by the absence of case-licensing.**

- **Prediction of the traditional view: *DP, \checkmark PP, \checkmark CP as complement of N**

- (23) ***DP as complement to N**
the destruction the city
- (24) **\checkmark PP as complement to N**
the destruction of the city
- (25) **\checkmark Finite declarative CP introduced by *that* as complement to N**
- your [proof [that Mary could not have committed the crime]]
 - the [demonstration [that John was insane]]
- (26) **\checkmark Nonfinite declarative CP introduced by *for* as complement to N**
- Mary's [desire [for Sue to win]]
 - Harry's [need [for someone to intervene]]
 - the [agreement [for John to leave early]]
 - Bill's [arrangement [for Tom to take the exam]]

- **A surprising fact:** N does not allow an embedded question as its complement.

- (27) ***wh-interrogative clause as complement to N**
- *Inquiries [where that bus was heading] are still proceeding
 - *Mary's curiosity [how the meeting had gone] was surprising.
 - *John's knowledge [when PRO to leave] is unparalleled.

- **This does not follow from traditional case theory:** Despite the fact that insertion of a proposition like *about* improves (27a-c), the problem cannot be a need for case-licensing on the part of embedded questions — as (22a-b) already showed.

**So what does account for the impossibility of an embedded question
as a complement to N?**

- **N has needs of its own that its complement must satisfy**
(Pesetsky & Torrego *passim*, and many talks I've given - perhaps you heard one)

- (28) ***Finite declarative CP not introduced by *that* as complement to N**
(Stowell 1981a, 1981b; Pesetsky & Torrego 2001, 2006, 2007)
- *your [proof [Mary could not have committed the crime]]
 - *the [demonstration [John was insane]]
- (29) ***Nonfinite declarative CP not introduced by *for* (and lacking the semantics of *for*) as complement to N (factive and implicative clauses)**
- | | |
|--|---|
| *Mary's [hatred [to have to leave]] | *Mary's [dislike [to go home]] |
| *Mary's [love [to solve problems]] | *Mary's [bother [to leave early]] |
| *Mary's [luckiness [to win the lottery]] | *Mary's [condescension [to leave]] |
| *Mary's [dare [to open the package]] | *Mary's [disdain [to read the novel]] |
| *Mary's [help [to unwrap the package]] | *Mary's [management [to leave early]] |
| *Mary's [neglect [to do her homework]] | *Mary's [omission [to mention that fact]] |
| *Mary's [venture [to demand an answer]] | *Mary's [scorn [to reveal her motives]] |
- (30) **√Nonfinite irrealis declarative CP as complement to N (*for*→*o*)**
- | | |
|---|---|
| Mary's [desire [to win]] | Mary's [need [to intervene]] |
| Mary's [agreement [to return]] | Mary's [arrangement [to take the exam]] |
| Mary's [wish [to be allowed to leave]] | Mary's [eagerness [to win the lottery]] |
| Mary's [attempt [to phone Bill]] | Mary's [choice [to visit Frankfurt]] |
| Mary's [demand [to get a raise]] | Mary's [decision [to quit her job]] |
| Mary's [hope [to leave early]] | Mary's [commitment [to donate money]] |
| Mary's [struggle [to wake up]] | Mary's [intention [to leave early]] |
| Mary's [plan [to read <i>War and Peace</i>]] | Mary's [offer [to fix the car]] |
| Mary's [promise [to do her homework]] | Mary's [request [to take the test]] |

Call the property which *that*, *for* and *P* have in common "τ":

- (31) **What heads demand from their complements**
- N requires its complement to bear: τ
 - P requires its complement to bear: φ

note: V and A do not impose any demands of this sort.

Proposal: W bears φ, but does not bear τ

- This assimilates the impossibility of an embedded question as complement of N to the other ways in which N is "picky" — explaining (27), analyzed now as (33):

- (32) ***WP (wh-interrogative clause) as complement to N**
- *Inquiries [_{WP} where W [_{CP} C that bus was heading] are still proceeding
 - *Mary's curiosity [_{WP} how W [_{CP} C the meeting had gone] was surprising.
 - *John's knowledge [_{WP} when W [_{CP} C PRO to leave] is unparalleled.

Excursus: What do *that*, *for* and *P* have in common?

- **They all show "X-trace effects"...**

- (33) **"That-trace effect" (Perlmutter 1971)**
[non-subject wh --> optional *that*]
- What do you think [Mary read ___]?
 - What do you think [that Mary read ___]?

[subject wh --> no *that*]

- Who do you think [___ read the book]?
 - *Who do you think [that ___ read the book]?
- (34) **"for-trace effect" (Chomsky and Lasnik 1977)**
[non-subject wh --> optional *for* (sort-of...)]
- What do you want [us to read ___]?
 - What would you prefer [for us to read ___]?
- [subject wh --> no *for*]**
- Who do you want [___ to read the book]?
 - *Who would you prefer [for ___ to read the book]?
- (35) **"P-trace effect" (Kayne 1979)**
[non-subject wh --> P ok]
- How much headway did he anticipate [Mary making ___ on this problem]?
 - How much headway did he talk [about Mary making ___ on this problem]?

[subject wh --> P bad]

- c. How much headway did he anticipate [__ being made on this problem]?
- d. ??How much headway did he talk [about __ being made on this problem]?

• ... as do instances of Tns raised to C ...

(36) "Aux-trace effect" in matrix questions (Koopman 1983)

[non-subject wh --> "optional" Tns-to-C]

- a. What a nice book Mary read __!
- b. What did Mary read __?

[subject wh --> no Tns-to-C]

- c. Who __ read the book?
- d. *Who did __ read the book?/*What a nice person did read the book!

(37) Belfast English: "Aux-trace effect" in embedded declaratives

(Henry 1995, 108-9; p.c.)

[non-subject wh --> (optional) Tns-to-C movement]

- a. Who did John say [did Mary claim [had Tom feared [would Bill attack __]]?

[subject wh --> no Tns-to-C movement]

- c. Who did John say [__ went to school]
- d. *Who did John say [did __ go to school]? (bad unless *do* is emphatic)

• ... which led Pesetsky & Torrego (*passim.*) to propose that the clause-introducers *that* and *for* are not complementizers, but instances of T that have undergone head-movement and incorporation into a null C — and to propose a featural kinship between T and P, i.e. a shared feature "τ".

Pesetsky-Torrego skeptics: One can reject aspects of this approach to clause introducers and still accept τ as a placeholder for whatever these elements have in common for the purposes of today's class.

4. WP as the host for successive-cyclic movement: the CNPC

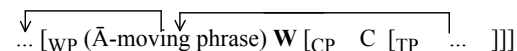
(38) Properties of WP

- a. CP and DP lack a phase-peripheral \bar{A} -position.
- b. WP extends the clausal or nominal domain to supply this position, and assumes the phasal properties of its complement.
- c. WP has EPP (so *WP unless its specifier is filled).

• **General consequence of phase theory and (38):** Long-distance movement relies on phase-peripheral positions, and therefore proceeds successive-cyclically through Spec,WP.

• **Also:** Interrogatives (and exclamatives) use the phase-peripheral position as a terminal landing site, and therefore rely on Spec,WP as well.

(39) \bar{A} -movement always proceeds through Spec,WP



Result: the Complex NP Constraint

- If a clause from which extraction takes place must be a WP, just like an embedded question ...
- ... then the same consideration that rules out an embedded question as the complement to N also rules out a clause that has been extracted from as the complement to N:

(40) *WP (extracted-from declarative clause) as complement to N

- a. *You'll never guess who Wikileaks is going to publish
[evidence [WP __ W [CP that diplomats have bribed __]]].
- b. *Where did the detective offer
[a proof [WP __ W [CP that Sue hid the murder weapon __]]]?
- c. *When was Mary surprised at
[our certainty [WP __ W [CP that Bill had left home __]]]?

Compare:

(41) *WP (wh-interrogative clause) as complement to N [= (33)]

- a. *Inquiries [WP where W [CP C that bus was heading] are still proceeding
- b. *Mary's curiosity [WP how W [CP C the meeting had gone] was surprising.
- c. *John's knowledge [WP when W [CP C PRO to leave] is unparalleled.

5. Complements to P and the interpretability of W

• Recall that a declarative CP is unacceptable as complement to P because it lacks the ϕ that P requires on its complement:

(42) *Declarative finite or infinitival CP as complement to P [= (8)]

- a. *Mary talked [about [that Bill bought a new car].
- b. *We have to deal [with [Ø Bill is not here]].
- c. *John is counting [on [for Sue to repay the loan].

• The EPP property of W prevents a "gratuitous" WP from supplying the ϕ that P seeks in (44) ...

(43) **Violating the EPP property of WP**

*Mary talked [about [_{WP} [_{CP} that Bill bought a new car]].

- ... but what if extraction has taken place from the complement of P, satisfying the EPP requirement of W?

Problem: A declarative complement to P is just as bad with extraction as without it:

(44) ***Clause as complement to P, even when extracted from**

- a. *What did Mary talk [about [_{WP} __ W [_{CP} that Bill had bought __]]]?
- b. *What loan is John counting [on [_{WP} __ W [_{CP} for Sue to repay __]]]?

A non-solution: P cannot be allergic to WP in general, because an embedded question is acceptable as the complement to P. This is one of the facts that motivated WP in the first place!

(45) **P does allow a WP complement (old news)** [= (20)]

- a. Inquiries [into [_{WP} where **W** [_{CP} C that bus was heading]]] are still proceeding.
- b. Mary was curious [about [_{WP} how **W** [_{CP} C the meeting had gone]]].

How to view the facts:

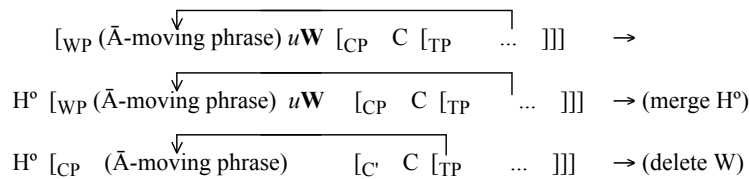
Interpretability of the W-feature

- When W hosts terminal *wh*-movement, forming an embedded question, its W-feature is *interpretable*...
- ... but when W hosts an intermediate stop for an element that undergoes further movement, its W-feature is *uninterpretable*.

Deletion of uninterpretable features

- **Deletion:** After an unvalued uninterpretable feature F has been valued, and EPP satisfied, F is deleted (to meet interface legibility conditions). If F headed FP, FP is pruned.
- **Timing:** Deletion of uninterpretable features takes place at the end of the phase, once the phase undergoes Merge (so it is detectable that the phase head is no longer projected).

(46) **Deletion of uW (uninterpretable W)**



Relevance to clausal complements of P

- **W deletes in (44) once P merges with WP, leaving P without the a ϕ -headed complement that it needs.**
- **W does not delete in (45), because it is interpretable**, so P retains the ϕ -headed complement that it needs.
- This difference matters if (47) is true:

(47)	Projection Principle for head-complement requirements	
	The requirements in (48a-b) must be met throughout the derivation.	
(48)	What heads demand from their complements	[= (31)]
	a. N requires its complement to bear:	τ
	b. P requires its complement to bear:	ϕ

Relevance to nominal complements of P

- **A nominal complement from which nothing has been extracted** satisfies the ϕ -requirement of P by virtue of the ϕ -features on D.
- **A nominal complement from which extraction has taken place** satisfies the ϕ -requirement of P in two different ways during the derivation: (1) by virtue of the W-feature of WP before it deletes, and (2) by virtue of the ϕ -features of DP after deletion:

(49) **✓nominal as complement to P, even when extracted from**

- a. What did Mary talk [about [_{WP} __ W [DP their purchase of __]]]?
- b. Who is John counting [on [_{WP} __ W [DP the promotion of __]]]

Relevance to nominals in general

(independent argument for WP pruning)

- **Recall:** The non-existence of embedded DP questions was attributed to the fact that WP blocks case-licensing of DP (and the existence of embedded CP questions follows from the fact that CP is self-sufficient for case-licensing):

(50) **The impossibility of a nominal *wh*-interrogative** [= (21)]

*[_{WP} *when* \bar{W} [_{DP} John's departure __]] (WP blocks case-licensing of DP)

- **Question:** Why doesn't WP block case-licensing of DPs from which extraction has taken place, such as (49a-b)?
- **Answer:** The same deletion of W (and pruning of WP) that has a deleterious effect on (44) has a salutary effect on (49a-b), making case-licensing available that would otherwise be blocked by WP.

Returning to the CNPC:

Relevance to clausal complements of N

(independent argument for Projection Principle)

- **Question:** In (40), W is uninterpretable, so W deletes and WP is pruned. As a result, N should be able to see τ on C, and satisfy its requirement in (48a). Why are there CNPC effects?
- **Answer:** The same Projection Principle that rules out (44a-b) — in which the ϕ -requirement of P is first satisfied, but later not satisfied — also excludes (40a-c), in which the τ -requirement of N is first not satisfied, but later satisfied.

Notice, however, that it is crucial that W not delete until WP has merged with N (or else N would never see the poisonous stage of the derivation in which its complement is an unpruned WP).

6. The phasal status of WP and the Subject Island Condition

- **Recall:** At the heart of the proposal are claims about phases:

- (51) **Properties of WP** [= (38)]
- CP and DP lack a phase-peripheral \bar{A} -position.
 - WP extends the clausal or nominal domain to supply this position, and assumes the phasal properties of its complement.
 - WP has EPP (so *WP unless its specifier is filled).

- **Crucially:** CP and DP must cease to be phases when they are complements of W (or else movement could not target Spec,WP).

[Missing: the general theory of phasal status from which this might follow.]

- **A question about pruning of WP:** When pruning of WP takes place because Spec,WP is being used as an intermediate landing site for successive-cyclic movement, does the CP or DP revealed by pruning gain phasal status?

- **Claim: If the answer is no, an independent fact about subjects can explain their status as islands.**

- (52) **Conjecture:**
When WP is pruned, the former complement of W does not gain the status of a phase.

- **The independent fact about subjects:** A full CP or DP can occupy Spec,TP — but not a TP, bare NP, small clause, raising infinitival, etc.

- (53) **What can satisfy EPP on T**
Only a phasal category can satisfy EPP on T.

WP in subject position

- An embedded question is a WP headed by interpretable W. Such a WP is phasal and does not delete.
- **Correct prediction:** An embedded question may serve as a subject of the sentence, satisfying EPP on T.

- (54) ✓ **Embedded question as Spec, TP of finite clause**
- [_{WP} Where that bus was heading] is unclear.
 - [_{WP} How the meeting went] has often been asked.
 - [_{WP} When these events took place] has finally been established.

- (55) ✓ **Embedded question as Spec, TP of ECM clause**
- The judge declared [_{WP} where that bus was heading] to be officially unknown.
 - Let's make [_{WP} how this meeting goes] surprise everyone.
 - I consider [_{WP} when these events took place] to have been finally established by the team from MIT.

WP pruning and the Subject Island Condition

- Given the VP-internal Subject Hypothesis, elements that merge as Spec,TP are (almost) never merging for the first time.
- Consequently, if a DP or CP that might satisfy EPP on T has been extracted from, it is a *non-phasal* DP or CP — since extraction proceeded through a WP that has already pruned.
- **By (53), such a DP or CP cannot satisfy EPP on T — which derives the Subject Island Condition.**

- (56) **Subject Island Condition for declarative CP**
(a.k.a. Sentential Subject Condition; (Ross 1967, 241ff.))
- *I can't imagine who [that diplomats have bribed ___] could shock Mary any more.
 - *The detective asked where [[for Sue to hide the murder weapon ___] would have been the most advantageous.

- (57) **Subject Island Condition for DP [Chomsky (1973/1977, 108)]**
- *I can't imagine who [bribery of ___] could shock Mary any more.
 - *The detective asked when [Mary's departure ___] caused the most concern.

[See Boivin (2005) for a discussion of French clitic *en* whose logic inspired this proposal.]

Side remark 1: EPP or Agree?

- Condition (53) is correctly formulated as concerning EPP, not Agree with T, since post-verbal nominatives are not islands:

(58) ✓ **Extraction from post-verbal nominative**
Who was there a [picture of ___] on the table.

Side remark 2: on the phasal status of PP

- PP must be viewed as normally non-phasal in English (in agreement with Abels 2003), or else PP complements to N would be islands, contrary to fact ...

(59) ✓ **Extraction from PP complement to N**
Which city did Mary read [a book [pp about ___]]?

- ... but if Locative Inversion involves a PP in Spec,TP, then it must have a phasal variant ...

(60) **Locative Inversion**
Into the room walked a large lion.

- which correctly predicts that the Subject Island Condition is obeyed by the fronted PP:

(61) ***Extraction from fronted PP in Locative Inversion**
Which room do you think (that) [[into ___] walked a large lion].
cf. ✓Into which room do you think walked a large lion.

7. Appendix: summary

(62) **Properties of WP**

- CP and DP lack a phase-peripheral \bar{A} -position.
- WP extends the clausal or nominal domain to supply this position, and assumes the phasal properties of its complement.
- WP has EPP (so *WP unless its specifier is filled).
- W bears interpretable or uninterpretable ϕ , but does not bear τ .

(63) **Interpretability of the W-feature**

- When W hosts terminal *wh*-movement, forming an embedded question, its W-feature is *interpretable*...
- ... but when W hosts an intermediate stop for an element that undergoes further movement, its W-feature is uninterpretable.

(64) **Deletion of uninterpretable features**

- **Deletion:** After an unvalued uninterpretable feature F has been valued, and EPP satisfied, F is deleted (to meet interface legibility conditions). If F headed FP, FP is pruned.
- **Timing:** Deletion of uninterpretable features takes place at the end of the phase, once the phase undergoes Merge (so it is detectable that the phase head is no longer projected).

(65) **Projection Principle for head-complement requirements**

The requirements in (48a-b) must be met throughout the derivation.

(66) **What heads demand from their complements**

- N requires its complement to bear: τ (*that, for, P*)
- P requires its complement to bear: ϕ (person, number, or W)

(67) **What can satisfy EPP on T**

Only a phasal category can satisfy EPP on T.