

# The bound possessor effect: a new argument for the phasehood of definite DPs

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## 1 Introduction

Phases have played a central role in Minimalist theories of locality. Two open questions about phases to be addressed in this talk:

- (1) What syntactic objects are phases? CP, (active voice) vP ...?
- (2) What makes a phase a phase? Chomsky, 2000, p. 107: “Phases are propositional” – any CP, vP?

Grano and Lasnik (to appear) and Barros and Frank (2017) on certain clause-bound dependencies:

- These dependencies can exceptionally cross a clause boundary if the subject is a bound pronoun.
- They link this bound pronoun subject effect to phasehood of CP: phasehood can change in the process of a derivation.

Here, I consider dependencies at the definite DP level.

- These dependencies show a bound possessor effect.
- This effect can be accounted for by adapting Grano and Lasnik’s proposal, providing support for it (and less directly, Barros and Frank’s).

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- Critically, this account works only if definite DPs are phases.
- The argument that DPs are phases affirms the older intuition that nominals delimit locality domains (e.g. Chomsky, 1973, 1977).

## 2 The bound pronoun subject effect

### 2.1 Clausebound restriction

A number of dependencies in English show a clausebound restriction, i.e. cannot cross a clause boundary (a and b examples of (3) and (4))...

- ... except when the embedded clause has a bound pronoun subject (c examples).
- Call this the “bound pronoun subject effect.” (Also see Barros and Frank, 2017 for an alternative discourse-based account.)

#### (3) Gapping (Strikethrough: intended reading)

- John likes Coke and Mary ~~likes~~ Pepsi.
- \*John said that Joe likes Coke and Mary ~~said that Joe likes~~ Pepsi.
- ?John<sub>1</sub> said that he<sub>1</sub> likes Coke and Mary<sub>2</sub> ~~said that she<sub>2/\*3</sub> likes~~ Pepsi.

#### (4) Comparative deletion

- More people like Coke than ~~like~~ Pepsi.
- \*More people ~~said that Joe likes Coke than said that Joe likes~~ Pepsi.
- ?More people<sub>1</sub> ~~said that they<sub>1</sub> like Coke than said that they<sub>1/\*2</sub> like~~ Pepsi.

### 2.2 A phasal explanation

Following Grano and Lasnik (and also Barros and Frank):

- The clausebound restriction is actually a phase-bound restriction. Certain dependencies are sensitive to phase boundaries.
- The bound pronoun subject effect reflects the “neutralization” of a phase, so the boundary of the phase becomes irrelevant.

### 3 The bound possessor effect

Certain dependencies may not cross the boundary of a definite DP (a, b examples of (5) and (6)) ...

- ... except when the definite DP has a bound possessor (c examples).
- Note: other factors matter: e.g. the main verb has to be a “verb of creation” (Davies and Dubinsky, 2003).
- I will be concerned with **the effect attributable to the bound possessor**: the “bound possessor” effect.

#### (5) Gapping

- a. John joked about Obama, and Mary ~~joked~~ about Trump.
- b. \*John told Colbert’s joke about Obama, and Mary ~~told Colbert’s joke~~ about Trump.
- c. ?John<sub>1</sub> told his<sub>1</sub> joke about Obama, and Mary<sub>2</sub> ~~told her<sub>2/\*3</sub>~~ joke about Trump.

#### (6) Wh-movement (Davies and Dubinsky, 2003)

- a. [Which president]<sub>1</sub> did John joke about t<sub>1</sub>?
- b. \*[Which president]<sub>1</sub> did Mary<sub>3</sub> tell Colbert’s<sub>2</sub> joke about t<sub>1</sub>?
- c. [Which president]<sub>1</sub> did Mary<sub>3</sub> tell her<sub>3/\*2</sub> joke about t<sub>1</sub>?

## 4 Proposal

The intuition: assimilate the bound possessor effect with the bound pronoun subject effect.

- Bound pronoun subjects cause a (finite) CP to not be a phase.
- Bound possessors have the same effect on a definite DP.

### 4.1 A theory of “candidate” phases

I first present my account of the bound pronoun subject effect.

Adapting Grano and Lasnik’s proposal, I assume the following about phases and bound pronouns.

- (7)
- a. Certain heads, e.g. *C*, enter a derivation as “candidate phase heads”; their projections become phases later in the derivation.
  - b. Movement from a candidate phase is not subject to the Phase Impenetrability Condition (PIC) (Chomsky, 2000, 2001).
  - c. Bound pronouns can exceptionally enter the derivation with unvalued phi-features.
  - d. Unvalued features can get valued by a matrix binder (Kratzer, 1998, 2009; Rullmann, 2004; Heim, 2008; Landau, 2016).

How does a CP candidate phase become a phase?

- (8)
- a. *C* has unvalued phi-features, to be valued via complementizer agreement with the nearest *c*-commanded  $\overline{DP}$  – the subject (Haegeman and van Koppen, 2012, *pace* Chomsky, 2008; Zwart, 1993, a.o.)
  - b. Convergence (cf. Chomsky, 2000:107, Felser, 2004): Candidate phase heads with valued phi-features become phase heads.

Contrast the assumptions in (8) with ...

- Grano and Lasnik’s proposal: what determines whether a *C* becomes a phase head or not is whether *T* – the head of *C*’s complement – has unvalued phi-features or not.
- Barros and Frank’s proposal: what determines whether CP is a phase or not is dependent on discourse properties of its subject, mediated by a functional head *Shift* (Frascarelli, 2007; Frascarelli and Hinterhölzl, 2007).

For expository purposes, I also adopt the following assumptions, following Grano and Lasnik.

- (9)
- a. “Strong” PIC (Chomsky, 2000)  
In the configuration  $[_{ZP} \dots [_{HP} \alpha [H YP]]]$ , where HP is a phase, the domain of a phase head *H* – *YP* – is not accessible to operations outside HP; only *H* and its edge  $\alpha$  are.
  - b. *C* is a candidate phase head, but *v* is not.

Empirically speaking, for gapping and *wh*-movement, the same results obtain under another conventional set of assumptions, namely:

- (10) a. “Weak” PIC (Chomsky, 2001)  
 In the configuration [<sub>ZP</sub> ... [<sub>HP</sub> α [H YP]]], where ZP and HP are phases, the domain of a phase head H (=YP) is not accessible to operations at ZP; only H and its edge α are.
- b. C and v are candidate phase heads, assuming that v always becomes a phase head.

In short, a CP does not become a phase in the following derivation:

- A C head enters the derivation as a candidate phase head.
- C agrees with the highest DP in its c-command domain – the subject.
- When the subject is a bound pronoun with unvalued phi-features, C’s phi-features fail to get valued.
- C does not become a phase head.
- The PIC does not apply to movement from this CP.

## 4.2 The bound pronoun subject effect: the case of gapping

- (11) a. \*John said that Joe likes Coke and Mary ~~said that Joe likes~~ Pepsi.
- b. ?John<sub>1</sub> said that he<sub>1</sub> likes Coke and Mary<sub>2</sub> ~~said that she<sub>2</sub> likes~~ Pepsi.

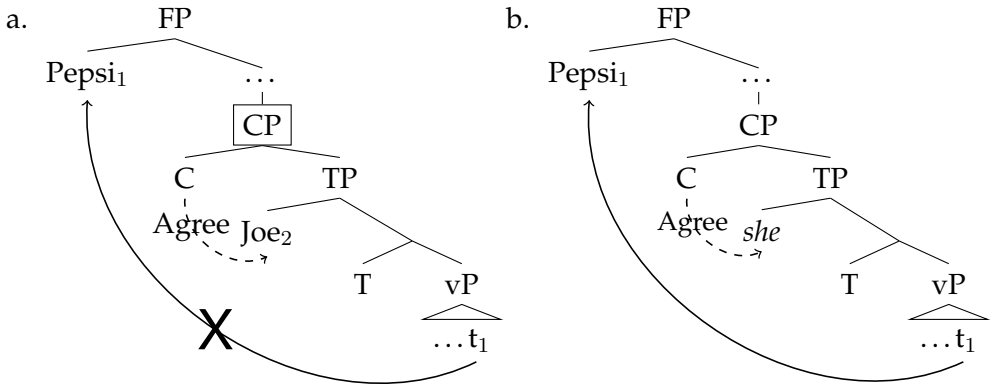
I assume that gapping involves movement:

- The remnant – *Pepsi* in (11) – moves from its base position to a position outside a vP (call it Spec,FP) in one fell swoop (following Coppock, 2001; Johnson, 2009, a.o.).

Gapping across a finite clause boundary typically violates the PIC (9a).

- It involves crossing the boundary of the CP dominating the base position of the remnant ...
- ... unless the subject inside the CP is a bound pronoun with unvalued phi-features, so CP is only a candidate phase.

- (12) Note: XP inside box: phase;  
*italics*: bound pronoun with unvalued phi-features

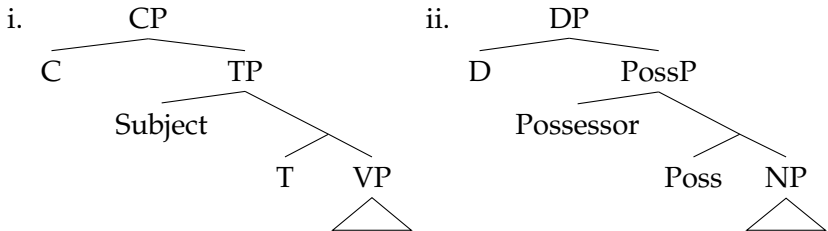


## 5 Deriving the bound possessor effect

The above analysis can be easily extended to account for the bound possessor effect.

We need the assumption in (13a) – independently motivated in the DP Hypothesis literature – and crucially the assumption in (13b).

- (13) a. CPs and DPs are isomorphic. Subjects and possessors are structurally analogous (Szabolcsi, 1994; Abney, 1987, a.o.).



(“Poss” is intended as a syntactic category but not necessarily one with possessive semantics.)

- b. Definite D is a (candidate) phase head.

### 5.1 Gapping

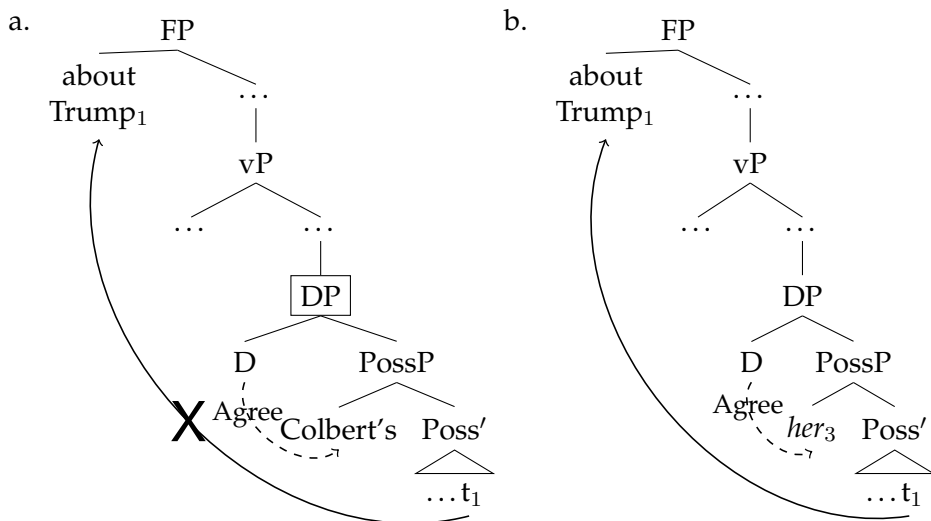
Recall that gapping across a definite DP is typically unacceptable (14a).

- (14) a. \*John told Colbert's joke about Obama, and Mary told Colbert's joke about Trump.  
 b. ?John<sub>1</sub> told his<sub>1</sub> joke about Obama, and Mary<sub>2</sub> told her<sub>2</sub> joke about Trump.

As was the case for clauses, gapping across a definite DP boundary involves moving from a phase, namely:

- The definite DP containing the base position of the remnant ...
- ... unless the definite DP contains a bound possessor with unvalued features, so the DP is only a candidate phase.

- (15) Note: XP inside box: phase;  
*italics*: bound pronoun with unvalued phi-features



## 5.2 *Wh*-movement (cf. Davies and Dubinsky 2003)

- (16) a. \*[Which president]<sub>1</sub> did Mary<sub>3</sub> tell Colbert's<sub>2</sub> joke about t<sub>1</sub>?  
 b. [Which president]<sub>1</sub> did Mary<sub>3</sub> tell her<sub>3</sub> joke about t<sub>1</sub>?

Following McCloskey, 2002, a.o., I assume that *wh*-phrases do not move to Spec,DP in English.

- More specifically, heads bear features that trigger movement of certain items to their edge.
- In English, these features are found on C (maybe also *v*), but not on definite D – a lexical idiosyncrasy.

Under these assumptions, *wh*-movement from a definite DP object also involves moving from a phase ...

- ... unless the definite DP contains a bound possessor.

## 6 Extensions

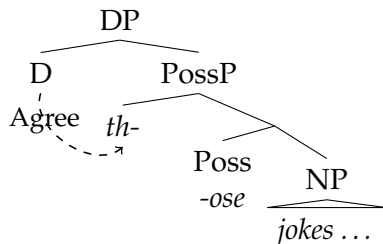
### 6.1 Demonstratives

Davies and Dubinsky: *wh*-movement from a definite DP becomes more acceptable when there is a demonstrative in the DP.

- (17) [Which president]<sub>1</sub> did Mary tell {those / \*Colbert's} jokes about t<sub>1</sub>?

Proposal: assimilate this “demonstrative” effect with the bound possessor effect.

- (18) a. Distal and proximal semantics are encoded on morphemes, of the category Poss, that bear unvalued phi-features.  
 b. An expletive is inserted in Spec,PossP to satisfy an EPP feature on distal and proximal Poss.  
 c. This expletive lacks valued phi-features.  
 d. For concreteness, assume a decompositional analysis, where *th-* is the expletive (but other analyses are possible).



As was the case for the bound possessor effect, D agrees with the exple-



tive.

- Because the expletive lacks valued phi-features, D's features remain unvalued.<sup>1</sup>
- The DP stays a candidate phase.
- *Wh*-movement out of the DP does not involve moving from a DP phase.

Is there evidence that the expletive lacks valued phi-features?

- Suppose that the expletive does bear valued phi-features.
- Prediction: Poss agrees with it.
- The prediction is not borne out: demonstrative articles show number agreement with the NP complement instead (19).

- (19) a. Proximal Poss: this book- $\emptyset$  (sg.) / these books (pl.)  
b. Distal Poss: that book- $\emptyset$  / those books

## 6.2 Existential constructions

Existential and demonstrative constructions have similar agreement facts.

Proposal: they are structurally parallel.

- Suppose that expletive *there* also lacks valued phi-features (*contra* Deal, 2009, e.g.).
- C agrees with *there*, and so CP remains a candidate phase.
- Prediction: existential constructions should show similar obviation effects.

This prediction is borne out – Barros and Frank (2017) report exactly such an effect (20), attributing the observation to Larry Horn.

- (20) a. Gapping  
Jill claimed that there was a problem with the heating, and Sally ~~claimed there was a problem~~ with the climate control in general.

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<sup>1</sup>To the extent D's features remain unvalued throughout a derivation, one needs to assume that unvalued features do not cause derivations to crash. For independent arguments for this assumption, see Preminger, 2014.

b. Comparative deletion

More people claimed that there was a problem with the economy than ~~claimed there was a problem~~ with illegal immigration.

(Barros and Frank, 2017, pp. 9–10, exx. 21d and 23d)

- Note that Grano and Lasnik’s proposal predicts no such effect: a CP becomes a phase when T’s phi-features are valued.
- In existential constructions, T’s phi-features do get valued, yet the CP behaves like a candidate phase.

## 7 Some remarks and conclusions

### 7.1 On the Complex NP Constraint

Preceding sections: definite DPs and finite CPs are (candidate) phases.

This analysis recalls pre-*Barriers* theories of subjacency, where NP and S/S’ are locality domains.

- It also suggests a way of deriving the Complex NP Constraint (Ross, 1967) against *wh*-movement from the clausal complement of a noun: such a movement operation violates the PIC.

The candidate phase proposal makes a further prediction: *wh*-movement becomes possible if the DP remains a candidate phase.

- This prediction is partially supported. As Davies and Dubinsky themselves noted (pp. 31–32, also Ross, 1967), *wh*-movement of arguments is possible out of such complex NPs (21a).
- But *wh*-movement of adjuncts remains blocked (21b).
- This suggests that the Complex NP Constraint cannot be entirely reduced to subjacency / the PIC.

- (21) a. (?)Who<sub>1</sub> did John<sub>2</sub> write [<sub>DP</sub> his<sub>2</sub> report [<sub>CP</sub> t<sub>1</sub> that the mayor criticized t<sub>1</sub>]]?
- b. \*[How angrily]<sub>1</sub> did John<sub>2</sub> write [<sub>DP</sub> his<sub>2</sub> report [<sub>CP</sub> t<sub>1</sub> that the mayor criticized the assistant t<sub>1</sub>]]?

## 7.2 A weak definite analysis

Simonenko (2013, 2015) and an anonymous NELS reviewer observe that “weak” definite DPs allow *wh*-movement from within (22) (also see Carlson et al., 2006; Schwarz, 2009, 2014).

- Strong definites (23) require an antecedent, weak ones do not.
- Weak definites have a uniqueness requirement, relativized to some situation; strong definites do not (Schwarz, 2014).

(22) Weak definite

- a. Mary went to Washington, D.C., and met the mayor.  
(Felicitous when referring to the mayor of D.C., even when there is no prior mention of the D.C. mayor.)
- b. [Which city]<sub>1</sub> did Mary meet the mayor of t<sub>1</sub>?

(23) Strong definite

- a. Mary went to Washington, D.C., and met the city councilor.  
(Felicitous only if there is already a salient city councilor in the context.)
- b. \*[Which city]<sub>1</sub> did Mary meet the city councilor {of/for} t<sub>1</sub>?

Perhaps the definite DPs discussed above are also “weak.”

But demonstratives seem to require an antecedent. Consider the following context:

(24) John: Were you at the comedy club last night? The theme was “U.S. Presidents” and Mary was the main performer.

Joe: Unfortunately, I couldn’t go. . . .

- a. . . . [Which president]<sub>1</sub> did Mary tell those jokes about t<sub>1</sub>?

- Uttered out of the blue, (24a) is an odd question – it improves only if an antecedent is available, e.g. if John had said previously that Mary told jokes about some president.
- In contrast, *Which president did Mary tell jokes about?* (without the demonstrative) is a felicitous question.
- If demonstratives require antecedents, they are strong definites, and thus predicted (incorrectly) to be islands.

Another challenge: it is not straightforward to extend this weak definite analysis to the clausal domain.

- Logically speaking, these might be independent phenomena.
- But such an analysis seems to miss generalizations about bound pronouns and bound possessors and about existential and demonstrative constructions.

### 7.3 The strong definite *the*

In contrast to demonstratives, strong definite DPs with the article *the* and representational noun complements are islands (25).

(25) \*[Which president]<sub>1</sub> did Mary tell {the / Colbert's} jokes about t<sub>1</sub>?

- But see Davies and Dubinsky, 2003; Simonenko, 2013, 2015 for more discussion on *wh*-movement and definite DPs.

Hypothesis: In these definite DPs, a morpheme bearing fully valued phi-features is found in Spec,PossP.

- Poss agrees with this morpheme, thus explaining why *the*-DPs do not show agreement with the NP.
- D also agrees with this morpheme, and gets its features valued.
- Consequently, the DP is a phase.

A suggestion regarding this morpheme with valued phi-features:

- Schwarz 2009 ch. 6: strong definites contain an unpronounced indexical argument.
- This indexical argument appears in the specifier of a strong definite head, which also has an NP complement.
- Suppose the definite morpheme is of category Poss, and the indexical argument bears valued phi-features.
- If so, the indexical argument is in Spec,PossP, in a position where D can agree with it.

### 7.4 Davies and Dubinsky 2003

Davies and Dubinsky propose that these definite DPs “incorporate” at LF

onto the verb.

- A definite DP is assumed to block government, and is thus a blocking category for *wh*-movement.
- Incorporation at LF can undo this blocking effect (Government Transparency Corollary, Baker, 1988).
- They also stipulate that incorporation is possible when a definite DP is modified with a bound possessor or a demonstrative that contains a PRO, among other conditions.
- The present proposal eliminates the need to appeal to government or incorporation, providing a simpler account.
- Future work to look at other conditions for incorporation discussed by Davies and Dubinsky, e.g. why does the main verb have to be a “verb of creation”?

## 8 Conclusion

Gapping across a definite DP boundary and *wh*-movement from a definite DP are typically unacceptable.

- However, they become acceptable under specific circumstances: one of the necessary conditions being the presence of a bound possessor in the DP.
- This effect can be assimilated with the bound pronoun subject effect described by Grano and Lasnik (to appear) and Barros and Frank (2017).
- I proposed an extension of Grano and Lasnik’s proposal, lending support to that proposal.

Critically, this analysis requires the assumption that definite DPs are candidate phases and can become phases in a derivation, thus providing a new argument that nominals are also locality domains.

## Appendix: On the parallels between DPs and CPs

The standard evidence for English: thematic roles and nominalization.

- (26) a. I consumed the ice cream.  
 b. My consumption of the ice cream ...

However, the DPs investigated here are not nominalizations. As Davies and Dubinsky noted (2003, p. 13), they are typically “representational nouns”: *joke, article, song* ...

I offer a novel argument that even representational nouns in English are structurally parallel to clauses.

- Observe that when an NP is elided in a possessive structure, the possessor pronoun appears in a special form.

- (27) John read Mary’s article, but he didn’t read ...  
 a. mine/\*my **article**.  
 b. yours/\*your **article**.

This form is derived with a suffix that covaries with the possessor (28).

(28) Forms of the possessor pronoun in NP ellipsis

Features	Pronoun	Suffix	Realized as ...
1st person singular	<i>my</i>	/-n/	<i>mine</i>
1st person plural	<i>our</i>	/-z/	<i>ours</i>
2nd person	<i>your</i>	/-z/	<i>yours</i>
3rd person singular male	<i>his</i>	∅	<i>his</i>
3rd person singular female	<i>her</i>	/-z/	<i>hers</i>
3rd person plural	<i>their</i>	/-z/	<i>theirs</i>
Interrogative	<i>whose</i>	∅	<i>whose</i>

(Alternatively: *his* and *whose* have a suffix /-z/, which gets deleted by haplology.)

The suffix can be analyzed as the nominal version of *do*-support, which is also triggered by ellipsis.

- The suffix-possessor covariation can then be modeled the same way as covariation between *do* and the subject: agreement.

Implications:

- The possessor occupies a subject-like position – a necessary condition for this proposal to work.

- English shows possessor agreement.
- The absence of a suffix for the third person singular non-human possessor *its* can be explained as a paradigmatic gap.

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