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

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Introduction. Grano & Lasnik (to appear) show that clausebound restrictions are obviated for a number of phenomena (e.g. gapping (1)), when the subject of the embedded clause is a bound pronoun (1b). They give a novel phase-based account for this "bound pronoun subject effect" (but cf. Barros & Frank 2017), proposing that the bound pronoun "neutralizes" the phasehood of the finite CP containing it.

(1) a. * John said Joe likes Coke and Mary ~~said Joe likes~~ Pepsi. (strikethrough: unpronounced)
b. ? John$_1$ said he$_1$ likes Coke and Mary$_2$ ~~said she$_2$ likes~~ Pepsi.

In this paper, I present a new argument that definite DPs are phases: definite DPs show an analogous "bound possessor effect." I account for the effect by adapting Grano & Lasnik's proposal. This paper thus provides support for Grano & Lasnik's general approach (and Barros & Frank's), while affirming an older idea that nominals delimit locality domains (e.g. Chomsky 1973).

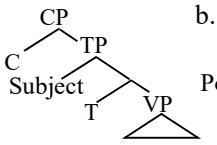
The bound possessor effect. In general, gapping across a definite DP boundary – eliding a verb and part of the DP – is unacceptable (2a), as is wh-movement from definite nominals (2b). However, both constructions become more acceptable when the nominal is modified by a possessor bound by the subject (3), among other factors such as the choice of main verb (Davies & Dubinsky 2003). Call the increased acceptability attributable to the bound possessor the "bound possessor effect."

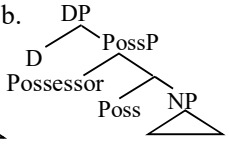
(2) a. * John$_1$ told Colbert's$_2$ joke about Obama, and Mary$_3$ ~~told Colbert's$_2$ joke~~ about Trump.
b. * Which president did Mary$_3$ tell Colbert's$_2$ joke about _?

(3) a. ? John$_1$ told his$_1$ joke about Obama, and Mary$_3$ ~~told her$_3$ joke~~ about Trump.
b. Which president did Mary$_3$ tell her$_3$ joke about _?

Summary of proposal. I argue that the bound possessor effect should be assimilated with the bound pronoun subject effect. Just as a bound pronoun can neutralize a CP phase, a bound possessor can neutralize another kind of phase – a definite DP. The gapping and wh-movement facts can then be given a phase-based analysis, assuming that both phenomena are subject to the Phase Impenetrability Condition.

Possessors are subject-like. To give a unified account of both effects, I assume that CPs and (possessive) DPs are isomorphic (4) (Szabolcsi 1994, a.o., also Abney 1987). I argue that possessors are structurally the analogues of subjects, and give new evidence involving agreement in NP ellipsis. When an NP is elided in a possessive DP, the possessor pronoun appears in a special form (5), e.g. *mine* (cf. *my*). This form is derived with a suffix that covaries with the possessor, e.g. /-n/ for *my* (*my* + /-n/ → *mine*), /-z/ for *your* (*your* + /-z/ → *yours*).

(4) a. 

b. 

(5) John read Mary's article, but he didn't read …
a. … {mine/*my/yours/*your} ~~article~~. b. … {*mine/my/*yours/your} article.

I analyze the suffixation as the nominal version of *do*-support, triggered by ellipsis. The suffix-possessor covariation can then be modeled the same way as the covariation between *do* and the subject: a morpheme – Poss in (4b) – agrees with the possessor, just as T agrees with the subject (4a).

A phase neutralization analysis. Adapting Grano & Lasnik's account, I propose the following for the bound pronoun subject effect (1): (i) gapping etc. are actually sensitive to phase boundaries; (ii) bound pronouns can exceptionally enter the derivation with unvalued phi-features; (iii) C has unvalued phi-features (after Haegeman & van Koppen 2012), valued via complementizer agreement with the nearest c-commanded DP – the subject; (iv) a phase is neutralized, thus exempt from the Phase Impenetrability Condition, as long as its head has unvalued features. (Following Grano & Lasnik, I assume unvalued features can get valued by the matrix binder.) When C agrees with a bound pronoun subject with unvalued phi-features, C's features cannot get valued, and CP's phasehood is neutralized.

To derive the bound possessor effect, I propose: (i) definite DPs are phases like CPs, (ii) definite D agrees with the possessor, the nearest DP in its domain. In the bound possessor examples (3), the bound possessor has unvalued features. D agrees with the possessor and fails to get its features valued. As a result, the DP phase is neutralized.

I further assume that (i) wh-movement and gapping are subject to the Phase Impenetrability Condition (PIC) of Chomsky 2001 (6), which rules out e.g. movement from the domain of a lower phase; and (ii) wh-phrases cannot move to Spec,DP, the edge of a DP. I suggest that the second assumption reflects lexical idiosyncrasies. Specifically, I assume heads bear features that trigger movement of certain items to their edges (McCloskey 2002 a.o.). While C and v bear features that trigger wh-movement to their edges, definite D does not.

(6) Phase Impenetrability Condition (adapted from Chomsky 2001 ex. 11)
In the configuration $[_{ZP}$ Z … $[_{HP}$ α [H YP]]], where ZP and HP are phases, the domain of H, YP, is not accessible to operations at ZP; only H and its edge α are.

Deriving the gapping facts. Assume that the remnant in a gapping construction undergoes movement (Coppock 2001; Johnson 2009). In (2a) and (3a), the remnant PP *about Trump* has to move from a definite DP and a vP phase. When the possessor is not bound, as in (2a) (=7a), the DP is also a phase, so movement of the PP violates the PIC. When the possessor is a bound pronoun (*her*$_3$) (3a) (=7b) the DP phase is neutralized, and movement of the PP satisfies the PIC.

(7) a. * [about Trump]$_4$ … [$_{vP}$ v… [$_{DP}$ D [$_{PossP}$ Colbert's$_2$ joke t$_4$]] (underline: PossP inaccessible)
b. [about Trump]$_4$ … [$_{vP}$ v… [$_{DP}$ D [$_{PossP}$ her$_3$ joke t$_4$]] (*her*$_3$ to be bound by the subject)

Deriving the wh-movement facts. In the above examples, a wh-phrase moves from inside a DP to Spec,vP in a single step, since by hypothesis it does not move to Spec,DP. When the possessor is not bound (2b) (=8a), the DP is a phase, so movement from the DP to Spec,vP violates the PIC. With a bound possessor (3b) (=8b), the DP is not a phase, so the same movement operation satisfies the PIC.

(8) a. * [$_{vP}$ [which president]$_4$ v… [$_{DP}$ D [$_{PossP}$ Colbert's$_2$ joke about t$_4$]]
b. [$_{vP}$ [which president]$_4$ v… [$_{DP}$ D [$_{PossP}$ her$_3$ joke about t$_4$]]

Other definites. Davies & Dubinsky also describe a "demonstrative effect" (9): with the appropriate main verb, a demonstrative can make wh-movement from a definite DP phase acceptable.

(9) Which president did Mary tell {those/*Colbert's} jokes about _?

Extending the bound possessor effect analysis, I offer a new analysis of demonstratives to capture this effect: demonstrative articles e.g. *that*, *those*, can be decomposed into an expletive "possessor" *th-* and a distal/proximal Poss morpheme with unvalued phi-features and an EPP feature. Critically, *th-* lacks a full set of phi-features, so D cannot value its features by agreeing with *th-*. D's unvalued features neutralize the DP phase, allowing wh-movement. To the extent that D's features stay unvalued, one has to further assume that unvalued features do not cause derivations to crash (e.g. Preminger 2014).

Evidence that *th-* lacks a full set of phi-features comes from the fact that distal/proximal Poss always agrees with the head NP instead, surfacing as *–at* (yielding *that*), *–ose* (*those*), etc. Note that the demonstrative DP is predicted to be a phase blocking wh-movement under Grano & Lasnik's proposal, where valued features on the head of the phase head's complement (here, Poss) "close off" a phase.

Lastly, in the same contexts, there seems to be no amelioration effects for the definite article *the* (10) (but see Davies & Dubinsky 2003; Simonenko 2015 for more discussion of wh-movement from *the*-DPs). I assume that in (10), *the* is inside PossP like the demonstrative articles, and D agrees with *the*. Since *the* does not covary with the features of the head NP, I assume that *the* bears a full set of phi-features. If so, D can then get its features valued via agreement with *the*, and the DP is a phase.

(10) Which president did Mary tell {*?the/*Colbert's} jokes about _?

Conclusion. Gapping across a DP boundary and wh-movement from a definite DP become acceptable when the DP contains a bound possessor. I proposed unifying this bound possessor effect with the bound pronoun subject effect of Grano & Lasnik. To do so, I adapted their analysis to account for gapping and wh-movement facts in nominals, and gave a new argument for treating DPs as phases.

Selected references. Barros & Frank 2017. Shifty subjects and clause-mate restrictions. LSA 91. Chomsky 1973. Conditions on transformations. Davies & Dubinsky 2003. On extraction from NPs. *NLLT* 21. Grano & Lasnik. To appear. How to neutralize a finite clause boundary: phase theory and the grammar of bound pronouns. *LI*. Haegeman & van Koppen 2012. Complementizer agreement and the relation between C_0 and T_0. *LI* 43. Szabolcsi 1994. The noun phrase.