

On English Possessive Pronouns and the Syntax-Morphology Relationship

1 INTRODUCTION. For many English speakers, A'-movement of a possessor requires pied-piping of the containing DP. However, Davis (2021) shows that about half of speakers also permit *possessor extraction* (PE). In such examples, long-distance *wh*-movement or topic/focus fronting separates the possessor from the Saxon genitive morpheme ['s] as in (1). Davis uses a variety of diagnostics to argue that this is truly PE.

- (1) *English possessor extraction* (Davis 2021, ex. 2. See that work for many analogous examples.)

Mary is the author [_{CP} **who**₁ they said [_{CP} [_{DP} **t**₁'s **new book**] is good]].

Based on a new study of 17 PE-accepting speakers, I show that such PE has an un-noticed restriction. Though 14/17 speakers accepted PE of a full DP by topic/focus fronting (2), all rejected extraction of possessive pronouns like *my* (3). **I argue that such elements are immobile because they are portmanteau morphemes which express a non-constituent unit**—a possessive D and the possessor in its specifier—via morphological *spanning* (Bye & Svenonius 2012, Merchant 2015, Svenonius 2016, a.o.). Further, I argue that this finding entails that **phase spell-out applies to entire phases** (Fox & Pesetsky 2005, Ko 2014, a.o.).

2 BACKGROUND AND PUZZLE. Several works argue that ['s] is a realization of a D that selects a possessor (Abney 1987, Corver 1992, Chomsky 1995). Since a possessor in spec-DP is an exclusive constituent, it ought to be extractable in principle. Davis (2021) argues that while PF constraints on the clitic ['s] prevent PE for many speakers (following Gavruseva & Thornton 2001), when speakers can relax those constraints, PE of the sort in (1) becomes possible. Davis shows that such constraints nevertheless force English PE to generally be cross-clausal as in (1)—a factor held constant in the sentences tested in this new study.

In this study, 14 speakers from which judgments were elicited accept PE via topic/focus movement (2):

- (2) *PE-permitting speakers accept topic/focus extraction of full DP possessors*

I don't think John's cat is particularly cute, but **Mary**₁, I've always said [_t₁'s cat] is really adorable.

However, these same 14 speakers all rejected topic/focus extraction of possessive pronouns (3):

- (3) *PE-permitting speakers reject possessive pronoun extraction (contrast with (2) also holds in clefts)*

- a. * Your cooking is not great. **My**₁, however, I suspect [_t₁ cooking] could win prizes.
b. * I don't think John's cat is cute, but **our**₁/**your**₁, I've always said [_t₁ cat] is really adorable.
c. * My dog is always well behaved. But **his**₁/**her**₁/**their**₁, I think [_t₁ dumb noisy dog] should get kicked out of the park. (Note: Including ['s], stranded or otherwise, yields no improvement.)

Importantly, note that English pronouns are generally capable of topic/focus movement (4):

- (4) *Topic/focus fronting usually possible for English pronouns*

I don't care how you talk to other people, but **me**₁, you gotta respect **t**₁! I'm the boss!

Puzzle: Why do those speakers who usually allow PE uniquely reject extraction of possessive pronouns?

Solution: Non-constituents cannot undergo phrasal movement. I propose that such pronouns are morphemes expressing a non-constituent—a possessive D and possessor in its specifier—and thus are immobile.

3 THE SPANNING ANALYSIS. As Corver (1992) notes, if ['s] realizes a possessor-selecting D, we predict the fact that *whose* (=who+['s]) or any DP+['s] cannot be extracted (5). Since a DP and a D it is in the specifier of do not form an exclusive constituent, such a unit cannot undergo (phrasal) movement:

- (5) * [**Which kid's**]₁/**whose**₁ should we buy [_t₁ **cookies**]? (No extraction of DP + ['s])

While full DP possessors co-occur with ['s], notice that ['s] is mostly absent for possessive pronouns (6):

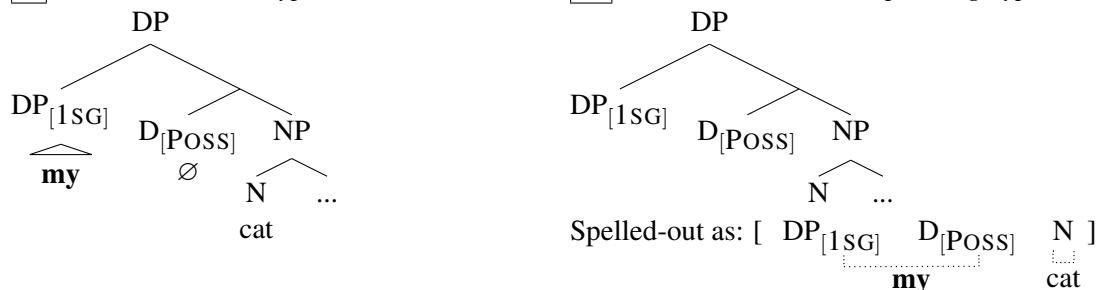
- (6) *my / our / your / his / her / its / their* (*English possessive pronouns*)

Deal (2006) suggests two analyses of this morphological fact: That either a morphological rule realizes the possessive D as \emptyset when it selects a pronoun, or that the possessive pronoun and possessive D are expressed together by a rule of morphological merger. Let's compare the syntactic predictions of these hypotheses.

For the first hypothesis, the possessive pronominal morpheme corresponds to a DP in the specifier of a D that is null due to a rule of allomorphy (7a). This hypothesis predicts that speakers who normally allow PE should be able to extract the possessive pronoun, since here that pronoun simply corresponds to a DP constituent. However, we saw in (3) above that this is not so. Thus I instead argue for a version of Deal's

second hypothesis. Assuming that morpho-phonological form is assigned upon post-syntactic spell-out (as in Distributed Morphology, Halle & Marantz 1993) I propose that possessive pronominal morphemes are portmanteau forms that *span* over a possessive D and a pronoun in its specifier, as in (7b). For this analysis, such possessive morphology expresses a non-constituent, and is thus accurately predicted to be immobile.

- (7) a. *Incorrect: Null D hypothesis* b. *Correct: Pronoun+D spanning hypothesis*



The forms *his* and *its* appear to potentially contain [’s]. However, I show that it is not possible to perform PE with these pronouns either in a way that would strand [’s], or that would displace *his* and *its* in their entirety. Thus I propose that *his* and *its* are simply irreducible portmanteau morphemes, whose final /s/ is not a separate suffix [’s] in the synchronic grammar (though there is likely a diachronic connection).

3.1 SPANNING AND PRONOUN STRUCTURE. The works on *spanning* cited above allow one morpheme to “span” across multiple adjacent heads in a selection relationship. The analysis in (7b) above does not fit this, since in (7b) the pronoun subsumed by the portmanteau is a DP, not a head. This issue dissolves if English pronouns are typically non-projecting determiners that lack an NP core (Postal 1969, Abney 1987). As expected, adding more structure in the pronoun, forcing it to project, bleeds portmanteau formation (8):

(8) The younger *me’s/*my* climbing skills were much better. (*Added structure bleeds portmanteau*)
 Note that under *bare phrase structure* (Chomsky 1995) a non-projecting pronoun is both a minimal and maximal projection, and thus can undergo phrasal movement in principle, as we saw in (4) above.

4 IMPLICATIONS FOR THE TIMING OF SPELL-OUT. Chomsky (2000, 2001, a.o.) proposes that syntactic structures are spelled-out to PF and LF phase-by-phase, and that phase spell-out only targets the complement of phase heads (C, v, etc.). For this theory, if DP is a phase (Heck & Zimmermam 2004, Bošković 2005, Syed & Simpson 2017, a.o.), at the time DP is built only NP is spelled-out and assigned morpho-phonological form. If this is so, then in principle there is time to extract a possessor pronoun from spec-DP before it and the possessive D are assigned their joint portmanteau morphology. In this context, the extracted pronoun would likely receive default accusative morphology (Schütze 2001, Preminger 2014), and D would receive its elsewhere form [’s]. However, such sentences (9) were rejected by 12/14 speakers (rated marginal by 2):

- (9) a. * Your cooking is not great. **Me**₁, however, I suspect [*t*₁ ’s cooking] could win prizes.
 b. * I don’t think John’s cat is cute, but **us**₁/**you**₁, I’ve always said [*t*₁ ’s cat] is really adorable.
 c. * My dog is always well behaved. But **him**₁/**her**₁/**them**₁, I think [*t*₁ ’s dumb noisy dog] should get kicked out of the park. (*No improvement with accusative pronoun, also * if [’s] is absent*)

In contrast, Fox & Pesetsky (2005) and others argue that once a phase is built, all of its content spells-out (and thus that there is no PIC). In this theory, a possessor pronoun and possessive D spell-out and receive portmanteau morphology as soon as DP is built. After this, no independent word corresponds to the pronoun alone, thus its extraction is correctly predicted to be morpho-phonologically illicit. Davis (2021) claims that DP is not a phase, but I argue that my analysis is compatible with Davis (2021) even if only vP is a phase.

5 FURTHER CONSEQUENCES. I go on to argue that these results verify a *spanning*-style theory of portmanteau formation, rather than a *fusion* theory, or a Nanosyntactic theory permitting morpheme insertion at non-terminals (Caha 2009, Starke 2009). I also argue that this account predicts the complexities of coordinated possessors in English, and clarifies the analysis of possessive constructions like *a cat of yours*.

6 SELECTED REFS. Davis (2021), Possessor Extraction in Colloquial English, *Linguistic Inquiry* 52. Deal (2006), Does English have genitive case?, *Snippets* 13. Fox & Pesetsky (2005), Cyclic linearization of syntactic structure, *Theoretical Linguistics* 31. Svenonius (2016), Spans & Words, *Morphological metatheory*.