Distinctness effects in English nominals

Stanislao Zompì

October 2020

Abstract

In this paper, I focus on several purported idiosyncrasies of English nominals, such as the contrasts between *this tall a person* and **a this tall person*, between *any taller a person* and **an any taller person*, and between *what color car* and **a what color car / *what color a car*. I argue that all these contrasts follow straightforwardly from Richards' (2010) Distinctness condition, banning any Spellout domain in which two instances of the same functional category stand in an asymmetric c-command relation. I also suggest that, under slightly less trivial assumptions about the timing of Distinctness repairs, a Distinctness-based account might be extended to the contrasts between *how many color cars* and **how many colors cars* and between *a three-year-old kid* and **a three years old kid*. Along the way, I also use these case studies to shed light back on the underpinnings of Distinctness and the mechanics of its repairs, arguing, in particular, that Distinctness violations must be repaired within the smallest maximal projection in which they occur, and that Distinctness-enforcing movement must, whenever possible, take precedence over Distinctness-enforcing deletion.

1 Introduction

Some English modifiers that contain what looks like a determiner (e.g. **this** *young*, **any** *younger*, or **that** *age*) have a rather peculiar syntax. In particular, they are all banned from the usual prenominal modifier position between the whole nominal's determiner and its noun.

(1) a. **I'd never marry a this young person.*
     b. **I'd never marry an any younger person.*
     c. **I'd never marry a that age person.*

Also peculiar are the possible fixes for such unacceptable examples. On the one hand, as first noticed by Bresnan (1973), examples like (1a) and (1b) may be repaired by shifting their modifiers to a position preceding the whole nominal's determiner.

(2) a. *I'd never marry this young a person.*
     b. *I'd never marry any younger a person.*

On the other hand, this move will not work for (1c), which may only be repaired by downright dropping the modified nominal's determiner as in (3b)—an observation perhaps novel to this paper.

(3) a. *I'd never marry that age a person.*
     b. *I'd never marry that age person.*

All these may easily be taken to be mere idiosyncrasies of English nominal syntax—but what if there was something more to them? Ideally, we'd like an account that would capture the similarities in (1), while at the same time providing for the difference between the viable repairs in (2) and (3).

In this paper, I develop an account of just this sort in terms of Richards' (2010) Distinctness condition, banning any Spellout domain where two nodes of the same functional category (regardless of their bar-level) are in an asymmetric c-command relation. This condition rules out all the unacceptable examples in (1) for the same reason: in all of them, the modified nominal's determiner *a* locally c-commands the determiner inside the modifier (*this*/*any*/*that*). The examples in (2) and (3) repair such a violation in different ways—the former by moving away the modifier-internal determiner (and the whole modifier with it), the latter by deleting the other determiner from the representation. This different behavior, I will argue, is straightforwardly predicted on the assumption that *that age* in (3) is itself a DP—and hence liable to further Distinctness-offending interactions with the other determiner *a* in (3a)—while the modifiers *this young* and *any younger* in (2) are not.

Such an account raises several questions, which Richards' (2010) original proposal also raised but mostly left open: Which repair strategy should apply to which violation, and at what point in the derivation? I suggest that the manageable-sized nominal structures in (1)–(3) may offer a particularly direct probe into this type of questions. I propose, in particular, that Distinctness violations must be repaired within the smallest maximal projection in which they occur, and that the first repair strategy to be attempted at that point must, whenever possible, be movement. Only if movement cannot apply—or does apply but fails to accomplish any repair—may deletion be attempted next.

The rest of the paper is structured as follows. After reviewing "*that young/any younger*" constructions ((1a–b)/(2)) in §2 and Richards' (2010) Distinctness theory in §3, I will apply the latter to the former in §4, and extend the analysis to "*that age*" constructions ((1c)/(3)) in §5. By that point, I will have enough empirical material to tackle the question of interactions between different repairs (as well as different applications of the same repair) in §6. In §7 I will then further extend the account to Distinctness interactions between number heads (such as the contrast between *those color cars* and *those colors cars*), supporting the conclusion that Distinctness violations require early repairs. I will finally lay out a few remaining puzzles in §8 and wrap up in §9.

2 Background (I): Bresnan's data

2.1 The first core paradigm

In English, DP-internal modifiers like the adjective *reliable* are generally restricted to appearing in a position between the DP's determiner and its noun.

(4) a. *He's a reliable man.*
     b. *He's reliable a man.*
     c. *He's a man reliable.*

However, Bresnan (1973: 287) notices that if that same adjective is to form a constituent together with what looks like a demonstrative (e.g. *that* or *this*), then it can no longer stay in the usual immediately prenominal position. Instead, both the demonstrative and the adjective have to be shifted to a position preceding the whole DP's determiner head.

(5) a. *He's that reliable a man.*   (Bresnan 1973: 287)
     b. **He's a that reliable man.*

(6) a. *She's this good a friend.*
     b. **She's a this good friend.*

Under subtly stricter conditions, the demonstrative and the adjective can also occupy the postnominal position, as in (7).[1]

(7) *I've never met a man {that}/{this} reliable.*

Bresnan (1973: 288) also notices that the same pattern we find in (5)–(6) can be replicated in examples involving comparatives. Specifically, a DP-internal comparative such as *more reliable* can generally occupy the usual modifier position between the article and the noun—so long as its *than*-phrase is extraposed[2]—and cannot occupy a position preceding the article.

(8) a. *John isn't a more reliable fellow than Bill.*   (adapted from Bresnan 1973)
     b. ?*John isn't more reliable a fellow than Bill.*

However, if the same comparative is to have a quantifier like *any* or *no* as its differential, then the usual medial position becomes unavailable again, and we are once again forced to choose between the pre-article and the postnominal position.

(9) a. (i)   *John isn't any more reliable a fellow than Bill.*   (Bresnan 1973: 288)
         (ii) **John isn't an any more reliable fellow than Bill.*
     b. (i)   *John is no more reliable a fellow than Bill.*
         (ii) **John is a no more reliable fellow than Bill.*

(10) a. *I've never met a man any more reliable than Bill.*
     b. *We need a man no more reliable than Bill.*

2.2 Motivating three key premises

What I would like to suggest here is that all of these contrasts—and several more—follow from Richards' (2010) Distinctness condition. Before I can show how this actually works, however, I first need to establish a couple of things about the constructions reviewed in § 2.1. I mean "a couple of things" literally: I do not need to commit to a fully-fledged

---

[1] Unadorned adjectives generally cannot be postnominal:
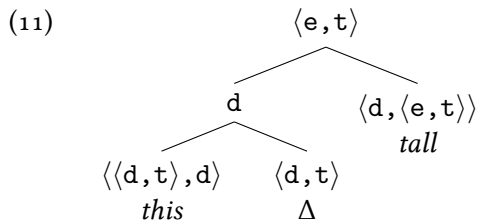
(i)   **I've never met a man reliable.*

In the account I am about to develop, English post-nominal APs will be analyzed as reduced relative clauses (following Sadler and Arnold 1994 and Cinque 2010). Restrictions of this sort will thus be expected to fall under a theory of the placement of such clauses in English (cf. fn. 9 below).

[2] I have nothing to contribute as to the reason why this extraposition is obligatory. See Bhatt and Pancheva (2004) for an articulated proposal.

analysis of the constructions in (5)–(7) and (9)–(10)—nor in fact do I want to. In particular, all I need to establish for my proposal to work is as follows:

A) *this*/*that* in (5)–(7) and *any*/*no* in (9)–(10) are what they appear to be, i.e. determiners;[3]

B) phrases like *that reliable* or *any more reliable* contain a D, but are not themselves DPs;

C) English postnominal modifiers form a separate Spellout domain from the rest of the DP that contains them.

I take A) to be the null hypothesis. It would be a massive coincidence if four English determiners each had a non-determiner homophone partaking in these nominal-internal movements. It seems, furthermore, that these four words have roughly the same meaning here as they have in their uncontroversial determiner uses. The demonstratives *this* and *that*, for example, are commonly thought to denote choice functions, taking a set of individuals as their input and yielding a contextually determined member of that set as their output. If we adopt the widespread assumption that gradable adjectives denote relations between degrees and individuals, then we may suppose that *this* in *this tall*, for example, has a silent complement Δ denoting a set of degrees, that $[\![this]\!]$ picks out a salient degree δ from that set as per usual, and that that δ then composes with $[\![tall]\!]$ to denote the set of δ-tall individuals.

(11)

```
                   ⟨e,t⟩
                  /     \
                 d       ⟨d,⟨e,t⟩⟩
                / \         tall
   ⟨⟨d,t⟩,d⟩   ⟨d,t⟩
      this       Δ
```

As for premise B)—to the effect that constituents like *this tall* or *any taller* are not themselves DPs—we can glean some evidence in its favor from tests like (12)–(13). Positions like the complement of *look* in the sense of 'seem', or of *get* in the sense of 'become', can be occupied by positive and comparative adjectives, but not by DPs.[4] Crucially, constituents like *that idiotic* or *any older* pattern with the former (i.e. with *idiotic* and *older*) rather than with the latter (i.e. *that idiot* or *any older man*) in this respect. This does not necessarily indicate that *idiotic* and *that idiotic* belong to the same category, but it does indicate that *that idiotic* and *that idiot* do not; and the same goes for *any older* vs *any older man*.

(12)   a.   *You didn't look {idiotic}✓ /{that idiotic}✓ /{*an idiot}✗ /{*that idiot}✗*
       b.   *You don't look {older}✓/{any older}✓/{*an older man}✗/{*any older man}✗*

(13)   a.   *I wouldn't get {crazy}✓ /{that crazy}✓ /{#a madman}✗ /{#that madman}✗*
       b.   *I didn't get {older}✓/{any older}✓/{#an older woman}✗ /{#any older woman}✗*

Finally moving on to premise C), it is worth noting that Sadler and Arnold (1994) and Cinque (2010) provide extensive arguments that all English postnominal "non-clausal" modifiers are in fact reduced relative clauses. Here I only need to supplement this idea with the assumption that such reduced relatives still contain enough clausal structure to form their own Spellout domain, separate from the rest of the DP—an assumption which will turn out to be useful at multiple largely unrelated points in the proposal to follow.

3   Background (II): Distinctness

The three premises in § 2.2 are in service of an account of Bresnan's (1973) data to be couched in terms of Richards' (2010) Distinctness theory. It is now time to quickly review what that theory actually consists in.

Richards (2010) assumes, following Kayne (1994), that the list of asymmetric–c-command pairs in a (chunk of a) phrase marker is a necessary input to the linearization algorithm.[5] Richards refers to such pairs as *linearization statements*. His key innovation is the proposal that 'repetitive' linearization statements like $\langle \alpha, \alpha \rangle$ lead the algorithm to a crash.

Here is a more explicit formulation.

(14)   A phrase marker PM generates a linearization statement $\langle X, Y \rangle$ iff both (a) and (b) hold of PM:

   a.   X asymmetrically c-commands Y—i.e. X c-commands Y and Y does not c-command X;

   b.   X and Y belong to the same Spellout domain—i.e. every phase head that c-commands X c-commands Y and every phase head that c-commands Y c-commands X.

(15)   A linearization statement $\langle X, Y \rangle$ is illicit if X and Y bear the same functional category label, regardless of their bar-level.

The formulation in (14) makes crucial use of the notions of phases and c-command.

The first notion plays a key role, for example, in ensuring that asymmetric c-command between two DPs like [*the kid*] and [*the world*] does not lead to Distinctness trouble in perfectly fine sentences like (16).

(16)   [$_{DP}$ *The kid*] *is sure* [$_{CP}$ *that* [$_{DP}$ *the world*] *is round*].

Updating Kayne's (1994) proposal, Richards (2010) assumes that linearization is not performed in one go on the phrase marker of the whole sentence, but proceeds cyclically, phase complement by phase complement, such that the two DPs in (16), belonging to two different minimal clauses, will never get to form an illicit linearization statement together. Glancing ahead to the account I will present in §§ 4.1–5, the only phase head I will have to invoke there will be the head of postnominal reduced relative clauses, which I will simply refer to as R for lack of a better-motivated, more substantive label.[6] In keeping with Richards' (2010) original assumptions, I will also crucially assume that D is *not*

---

[5]   More specifically, Kayne (1994) argues that full information on asymmetric–c-command pairs is both necessary *and sufficient* for linearization. By contrast, Richards (2010) need not commit to such a strong assumption, although his theory is of course compatible with it.

[6]   Whether R is the same left-peripheral phase head we find in other less reduced relatives, I will refrain from taking a stand about.

a phase head—siding with Sabbagh (2007) and Zyman (to appear), and *contra* Bošković (2005), Newell (2008), and Syed and Simpson (2017).[7]

As for c-command, here is the definition I will adopt throughout:

(17)   X c-commands Y iff X and Y are categories and X excludes Y and every segment
        that dominates X dominates Y.   (Cinque 1996: 450 fn8)

This definition is identical to Kayne's (1994: 16) except for substituting "every segment" for Kayne's "every category". As noted by Cinque (1996: 450) himself, this modification has two main consequences: first, it allows for more than one specifier per phrase; second, it prevents the specifier of XP from "periscopically" c-commanding everything that XP c-commands. Unlike Kayne (1994) and Cinque (1996), I regard both consequences as welcome, based on Rudin's (1988) and Richards' (2001) evidence for multiple specifiers of CP, and on the classical evidence from Principle A against "periscopic" c-command.[8]

(18)   *Every girl's father admires herself.*

The absence of "periscopic" c-command will also turn out to be useful at a couple of points in the proposal to follow.

4   Applying Distinctness

4.1   Accounting for the first core paradigm

With this much in place, we can see why (19) violates Distinctness. The whole DP's D head asymmetrically c-commands the D *this/that*, and there are, by assumption, no domain boundaries to separate the two Ds from each other.

(19)

---
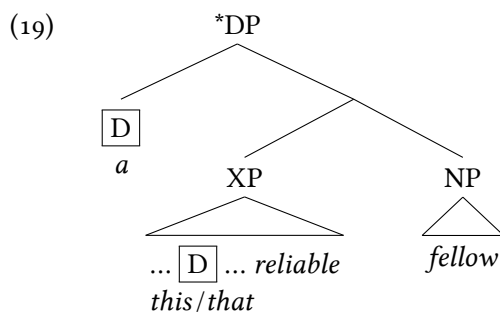
[7] Cf. also Matushansky (2005) and Davis (2020: § 3.7) for more nuanced positions.

[8] Kayne's (1994: 24) NPI example *Nobody's articles ever get published fast enough* remains a puzzle, but I suspect that it may be solved in terms of feature percolation, as is also suggested by the Saxon genitive's ability to pied-pipe in negative inversion ((i)). Similarly, complements of P can both pied-pipe their PP and license NPIs in their PP-s c-command domain ((ii)), while DP-internal PPs can neither pied-pipe their DP nor license DP-external NPIs ((iii)). The correlation appears to be promising.

(i)   *Nobody's articles did I love more than yours.*

(ii)   a.   *In no way was I rude to your friends.*
   b.   *I was in no way rude to any of your friends.*

(iii)   a.   **Articles by nobody did she love more than yours*   (cf. Horvath 2017: (77b))
   b.   **Articles by nobody ever get published fast enough*

An alternative to (19) that does comply with Distinctness is one that relegates the modifier into a postnominal reduced relative clause, on the assumption stated above that such a clause forms a Spellout domain of its own.[9]

(20)
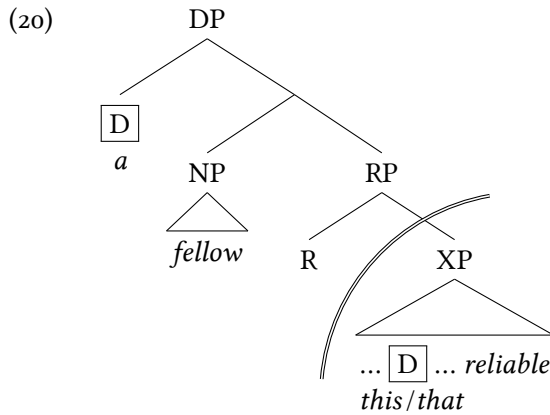
Alternatively, we may also rescue (19) without adding phase boundaries, just by moving our XP into the whole DP's specifier.[10] In the resulting tree (21), there is no Distinctness violation—assuming, with Kayne (1994), that bar-levels are segments and not categories, and hence do not participate in any c-command relation at all. This move would prevent D′ from still asymmetrically c-commanding *this/that* after movement.[11]

(21)
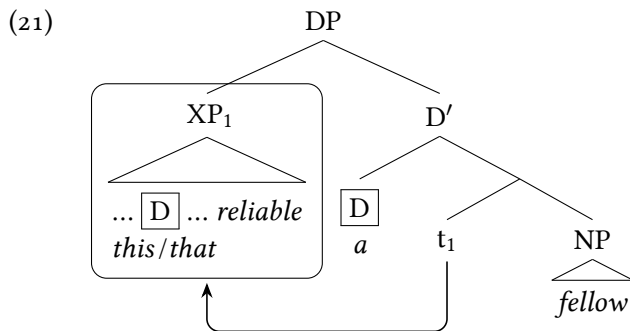
(This is also the first juncture at which the absence of "periscopic" c-command is useful. Should it turn out that the specifier of XP was a DP headed by *this*, then "periscopic" c-command would incorrectly predict Distinctness to still be violated in (21), as the DP in Spec,XP would then c-command everything that XP c-commands, including the D *a*. By
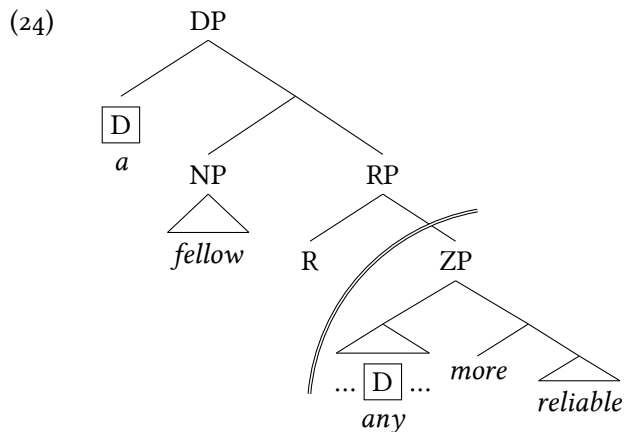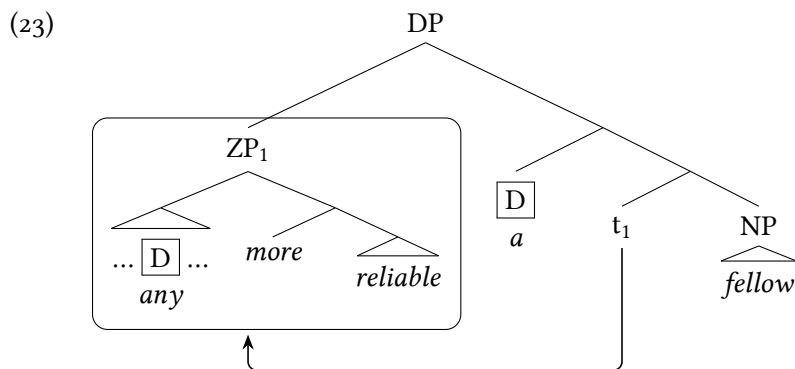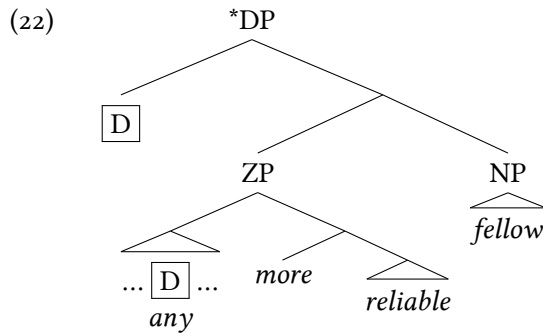
---

[9] Cinque (2010)—unlike Sadler and Arnold (1994)—argues that not all reduced relatives are postnominal: while many of them obligatorily are (e.g. *asleep* or *proud of her daughter*), some of them can be prenominal (e.g. *recently arrived*). This raises the question of why our reduced relative RP cannot appear between *a* and *fellow*, as in *a* [*recently arrived*] *fellow*. This seems to be part of a more general mystery: we are still a far cry from understanding what regulates the placement of reduced relative clauses in the English DP (cf. fn. 1).

[10] One may wonder whether postnominal modifiers could not also be analyzed along the same lines—i.e. just as in (21), except for Spec,DP being linearized to the right of D′ this time—thereby avoiding any appeal to a reduced relative clause structure. While none of the Distinctness data so far suffices to rule out this hypothesis, we will see some that does in §§5 and 7—e.g. *that color* (**a*) *car* ~ *a car that color*, or *those color*(**s*) *cars* ~ *cars those colors*.

[11] Alternatively, we might move XP into the specifier of some higher non-phasal projection—such as Kennedy and Merchant's (2000) FP—in which case disregarding single-bar levels would no longer be crucial for the account. I will set aside this possibility for the moment, and take it up again—quite inconclusively—in §8.

contrast, defining c-command as we did in (17) allows us to remain agnostic about XP's internal structure.)

The account presented so far applies in exactly the same way to phrases like [*any/no more reliable*]. The determiner *any*, for example, violates Distinctness in (22), but not after the movement in (23). (Here too, should the specifier of *any more reliable* turn out to be a DP headed by *any*, Kayne's "periscopic" c-command would not predict this movement to accomplish any repair, contrary to fact.) Finally, the reduced-relative structure in (24) avoids any Distinctness violation thanks to the domain boundary induced by the head we dubbed R.

(22)

*DP
- D
- ZP
  - ... D ... (*any*)
  - *more*
  - *reliable*
- NP (*fellow*)

(23)

DP
- ZP$_1$
  - ... D ... (*any*)
  - *more*
  - *reliable*
- D (*a*)
- t$_1$
- NP (*fellow*)

(24)

DP
- D (*a*)
- NP (*fellow*)
- RP
  - R
  - ZP
    - ... D ... (*any*)
    - *more*
    - *reliable*

8

4.2 Beyond Bresnan's data set: Predictions and implications

Moving beyond Bresnan's (1973) original data set, the Distinctness-based account immediately makes two good predictions.

First of all, notice that the account characterizes the problem with examples like (25) in purely structural terms, without ascribing any role to the relation of linear adjacency between the determiners *a* and *that/any*.

(25) a. *He's a that reliable man.*
      b. *John isn't an any more reliable fellow than Bill.*

We thus expect the problem to arise in exactly the same way regardless of whether or not *a* and *that* are linearly adjacent. This prediction is borne out in (27).

(26) a. *I've never seen a big that white chalkboard.*
      b. *I've never seen that white a big chalkboard.*
      c. *I've never seen a big chalkboard that white.*

Secondly, the account identifies the relevant structural relation simply as asymmetric c-command (between Spellout-domain–mates) rather than as immediate c-command or government. By virtue of the downward-unbounded nature of asymmetric c-command, we thus expect Distinctness violations to arise in exactly the same way no matter how deeply embedded the lower D is within the modifier. This prediction is borne out in (27).

(27) a. *a [[[that much] better] styled] haircut*
      b. [[[that much] better] styled] a haircut
      c. a haircut [[[that much] better] styled]

(28)
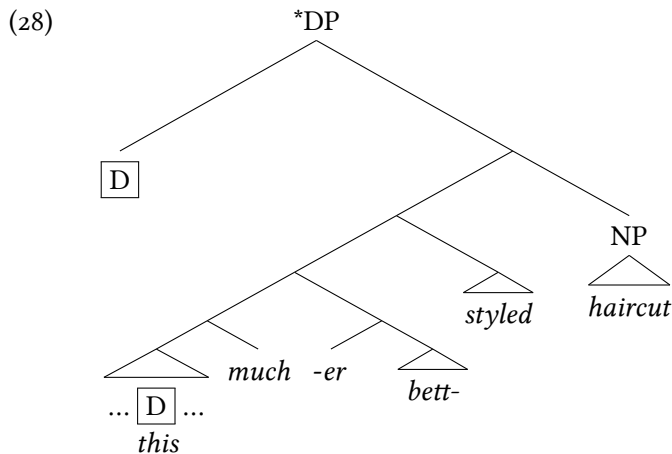
Finally, before we break any new empirical ground, it is worth focusing briefly on the theoretical significance of the repair (or avoidance) strategy seen in [[*this reliable*]$_1$ *a* t$_1$ *fellow*] and [[*any more reliable*$_1$ *a* t$_1$ *fellow*] ((21); (23)). Rather than separate out the potential Distinctness offenders D$_1$ and D(P)$_2$ by epenthesizing a Spellout-domain boundary between them, or by moving either of them into a higher Spellout domain, here we seem to avert a Distinctness violation via a movement that does not cross any domain boundaries, but just displaces a phrase containing D(P)$_2$ so as to eliminate any asymmetric c-command

relation between it and D_1. Such a repair strategy—never robustly documented so far[12]—provides welcome direct support for the role attributed to c-command in Richards' (2010) theory.

The availability of this strategy also highlights an argument against one conceivable rationale for Distinctness—namely the idea, briefly entertained by Richards (2010), that while it would in principle be possible to tell apart two DPs by assigning them indices or by referring to "their positions ($\langle$DP in specifier of XP, DP complement of X$\rangle$) [...], these richer ways of referring to positions in the tree are not in fact available to the linearization process," and that therefore such linearization statements as $\langle$DP, DP$\rangle$ are uninterpretable "because the linearization algorithm regards them as self-contradictory instructions to make nodes precede themselves" (*ibid.*, p. 5). The fact that multiple occurrences of the same category may be in the same Spellout domain, as long as neither of them asymmetrically c-commands the other, spells trouble for this conjecture. That is because, if the linearization component were downright incapable of telling two Ds apart, we would expect it to have trouble linearizing them regardless of whether either asymmetrically c-commands the other. Take, for example, the tree in (29), which contains a variant of (21) with AP's trace being pruned. If the linearization component were unable to distinguish D_1 and D_2 (if, e.g., it were to incorrectly map both onto the image {*this*}, or both onto {*a*}) or D_1P and D_2P (i.e. if it mapped both onto {*this*}, or both onto {*this, reliable, a, fellow*}), then it could not generate a total order for the terminals, and would thus be expected to rule (29) out as unlinearizable, contrary to fact.

(29)
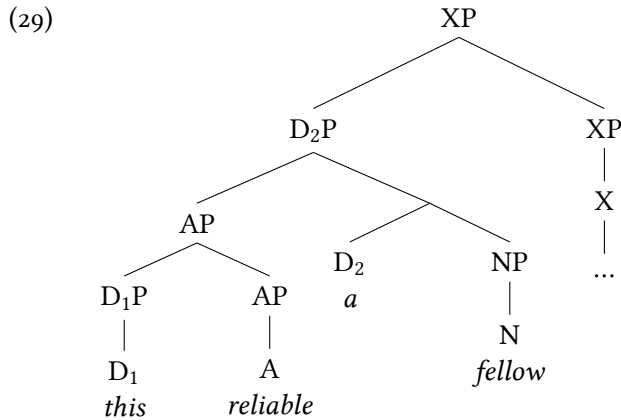
(30) a. Linearization statements:
$\langle$D$_1$P, A$\rangle$
$\langle$AP, D$_2$$\rangle$
$\langle$AP, NP$\rangle$
$\langle$D$_2$, N$\rangle$
$\langle$D$_2$P, X$\rangle$

b. Images of relevant nonterminals:
$d(\text{D}_1\text{P}) = d(\text{D}_1) = \{this\}$
$d(\text{A}) = \{reliable\}$
$d(\text{AP}) = \{this, reliable\}$
$d(\text{D}_2) = \{a\}$
$d(\text{NP}) = d(\text{N}) = \{fellow\}$
$d(\text{XP}) = d(\text{X}) = \{...\}$

It appears, then, that Distinctness cannot be simply reduced to a by-product of the linearization component's supposed inability to tell nodes apart based on anything other

---

[12] Richards (2010: 63–64) only discusses one potential instance of such Distinctness-driven movement internal to a given Spellout domain (in the context of English gerunds); but that one instance just happens to be string-vacuous, and is thus less securely established than one might have hoped.

than their category. Rather, linearization turns out to have trouble distinguishing occurrences of the same category only when such occurrences are members of *one and the same linearization statement.*

5   The second core paradigm: *This color (*a) car*

The key importance of asymmetric c-command to these effects is further evidenced by an additional set of data—part of which, to the best of my knowledge, has never received any attention in the theoretical literature so far. The facts of the matter are as follows.

As illustrated by examples by Williams (1983) and further discussed by Partee (1986: § 5), English idiosyncratically allows several "attribute" nouns like *color*, *size*, or *age* to be the lexical heads of predicates regardless of what determiner tops off their extended projections.

(31)   *At one time or another, my house has been every color.*   (Williams 1983: (28))

As also noted by Partee (1986), these same nouns may also have their extended projections appearing as postnominal modifiers—an idiosyncratic possibility that cannot be reduced to the type-shifting rules generally available to DPs (cf. (33)).[13]

(32)   *a dress {that size}/{that color}/{that length}/{that price}/*   (Partee 1986: (9))
        {?that pattern}/{*that design}/{*that material}/{*that origin}

(33)   Partee's (1986) ex. (13)
      a.   *There's nothing here a good color.*
      b.   *There's no one here the right age.*
      c.   **There's nothing here the right answer.*
      d.   **There's no one here a good teacher.*

The fact that such "attribute" DPs may function as postnominal modifiers but not as vanilla prenominal modifiers is reminiscent of what we have already seen for modifiers like *this big* and *any better*. We may therefore want to model our treatment of the contrast in (34) on our previous treatment of (35): *a* and *this* violate Distinctness together in (34a), but they do not in (34b) because postnominal modifiers belong to a different Spellout domain than the rest of their DP.

(34)   a.   **I would never buy a this color car.*
      b.   *I would never buy a car this color.*

(35)   a.   **I would never buy a this big car.*
      b.   *I would never buy a car this big.*

But the parallel breaks down in (36). Here, in contrast to the cases seen so far, moving the Distinctness-violating modifier to the left periphery of the whole DP won't do. Rather, we just have to delete one of the two determiners as in (36b)—a phenomenon which has never been previously observed, to the best of my knowledge.[14]

---

[13] Partee (1986) also reports "considerable individual variation on judgments about particular [nouns]"—something I have also run up against. See also fn. 17 below.

[14] Similar examples (e.g. *What color car did they buy?*) are mentioned in passing in Kayne (2005: 213) and Kayne (2005: 289fn20), but without any discussion of the missing determiner.

(36)   a.   *I would never buy this color a car*
        b.   *I would never buy this color car.*

(37)   a.   *I would never buy this big a car*
        b.   #*I would never buy this big car.*   (unacceptable as a paraphrase of (a))

However, even this fact, which might otherwise seem like just another idiosyncrasy, follows from the Distinctness-based account developed so far, on the assumption that *this color*—unlike *this big*—is itself a DP, as is suggested by its ability to contain much the same material as DPs can normally contain.[15]

(38)   a.   *I would never buy {**this exact same color** car / a car **this exact same color**}.*
        b.   *I would never buy {**any other bright color** car / a car **any other bright color**}.*

If *this color* is indeed a DP, then moving it into the specifier of the bigger DP would eliminate some Distinctness-offending c-command relations ($\langle D_1, D_2 \rangle$, $\langle D_1, D_2P \rangle$) only to create a new one ($\langle D_2P, D_1 \rangle$), thus failing to accomplish any repair.[16] That is why a different repair strategy is called for—one that deletes one of the two nondistinct determiners from the representation relevant to linearization. For now I will simply refer to this strategy as *haplology*, deferring a somewhat more concrete implementation until § 6.2.[17]

---

[15] The attribute DP may also be modified by a relative clause, but only if sitting in postnominal position:

(i)   a.   *I bought a car the same color that you recommended.*
      b.   **I bought the same color that you recommended car.*

This is reminiscent of the ban on prenominal *than*-phrases mentioned in fn. 2. Both phenomena seem to call for an explanation from outside Distinctness theory.

     Another complication worth noting in passing is that pronoun substitution is inapplicable as a test for DP-hood in the case of *this color* and the like, as all the relevant environments are *antipronominal* (Postal 1994; Stanton 2016; Poole 2017).

[16] This is the first time so far that I have really had to commit to the DP hypothesis. See Salzmann (2020) for recent discussion.

[17] Coming back to the issue of idiolectal variation (see fn. 13), I should add that although different speakers may have different judgements about the same "attribute" noun, each speaker's judgements tend to be consistent across the various constructions in (31), (34), and (36)—that is, if someone accepts *size*- or *price*-DPs as predicates in copular clauses (as in (31)), she will also typically accept them as postnominal modifiers as in (34b) and as prenominal modifiers as in (36b).

     For certain "attribute nouns" in certain idiolects, however, there seems to be an asymmetry between prenominal "attribute DPs" with *wh*-determiners (acceptable with D-haplology, as expected) and with non-*wh*-determiners (surprisingly unacceptable, with or without D-haplology), for reasons I do not quite understand.

(i)   a.   *a table this length*   (*length* in Edwin Williams' [p.c.] idiolect)
      b.   *what length (*a) table?*
      c.   **this length (a) table*

     More generally, judgements about D-haplology tend to be crisper in *wh*-constructions—possibly because these have no acceptable alternative featuring the "attribute-DP" in postnominal position, due to independent restrictions on pied-piping in English (see the discussion of (76)–(77) in § 8 below).

(ii)   a.   *What age person should we hire?*
      b.   **A person what age should we hire?*

(39)
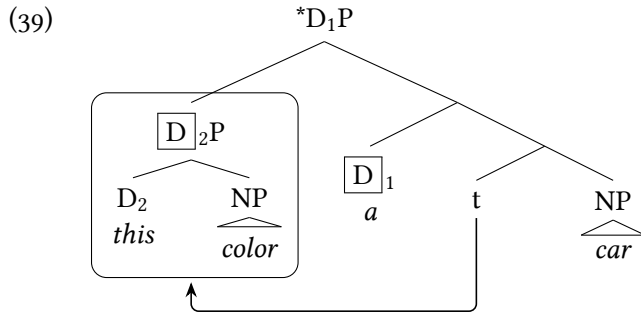
This situation thus bears some resemblance to the one that Richards (2010) outlines for so-called Saxon genitives in English. Departing from Abney (1987), Richards (2010: 76) shows, in particular, that examples like (40b)–(40c) "can be ruled out without necessarily declaring *'s* to be a D. We can say that D and *'s* cannot co-occur because ordinary possessors [...] have an instance of D of their own, and Distinctness therefore bans the co-occurrence of an ordinary possessor and an overt D for the possessed noun."

(40)   a.   *the President's husband*
       b.   *the *the President's husband*
       c.   **the President's* **the** *husband*

6   More on Distinctness repairs

6.1   (Non-)interactions between different repair strategies

A first set of questions that arise at this point concerns the interactions (or lack thereof) between the two repair strategies we have seen so far—that is, movement and haplology. In § 5, I argued that haplology applies when viable movements are by themselves unable to ensure compliance with Distinctness.[18] From this alone, one might perhaps have inferred that movement and haplology would be mutually exclusive alternatives as Distinctness repairs. However, that is not what we find; in fact, it appears that haplology typically applies *alongside* movement.

Simple examples like (41) are not revealing in this respect, as they leave it underdetermined whether *this color* has remained *in situ* or moved to Spec,DP (or some other left-peripheral position in the nominal); but as soon as more material is added so that movement is no longer string-vacuous, it becomes clear that *this color* does have to move from its base position toward the DP's periphery. For example, assuming (with Cinque 2010 and much other work) that color modifiers start out lower than size modifiers, we can take (42) to show that *this color* has to move over *long*. The basic-order variant in (42b) is sharply unacceptable.

(41)   *I would never buy this color coat.*

---

[18] The qualification "*viable*" bears emphasis here. It would in principle be possible to repair the Distinctness problem in [*a* [*this color*] *car*] by moving, for example, the whole complement of *a* into the specifier of *a*: [[[*this color*] *car*]₁ [*a* t₁]]. Similarly, it would be possible to license the string *this color a car* by starting out with a structure like [*a car* [R [*this color*]]] and then fronting the whole reduced relative clause: [[R [*this color*]_DP]_RP *a* t_RP *car*]. The implicit assumption here is that these and other analogous movements are independently ruled out—at least in English—and are therefore not valid repair strategies for our purposes.

(42) a. *I would never buy this color long coat.*
      b. **I would never buy long this color coat.*

The example in (42) instantiates what we might refer to as *idle* movement: the "attribute" DP moves to the left periphery of the containing nominal even though this movement is of no use in fixing its Distinctness problem, and even though the subsequent haplology of the containing nominal's D head would instead have sufficed to fix it all by itself. This data thus argues against a model of grammar designed to globally minimize repairs, at least in this domain, and seems instead to point to the blind application of repairs in an ordered series.

(43) If a structure generates a Distinctness-violating linearization statement $\langle \alpha, \beta \rangle$,
      a. first move a constituent dominating β (but not dominating α) into a position c-commanding α, if you can;
      b. if the resulting structure also generates a Distinctness-violating statement containing either α or β, then haplologize α—*without undoing the movement of the β-dominating constituent.*

Finally, it is less trivial to establish what happens when the first movement step in (43a) is inapplicable—e.g., in our particular case, when movement to Spec,DP is independently ruled out. It has been known since Bresnan (1973), for example, that the only overt determiner in English that may attract into its specifier such expressions as *this tall* is the singular indefinite article *a(n)* (cf. also Kennedy and Merchant 2000).[19]

(44) a. *I've never seen [[this tall] a man].*
      b. **I've never seen [[this tall] the men].*

The reasons for this contrast are poorly understood, but need not concern us. What matters is that movement of *this tall* to the specifier of *the* is impossible in (45).

(45) ... [the [this tall] men]

Given that here movement is not a viable option to begin with, we might expect haplology to be directly applicable, in the absence of valid alternative repairs. It turns out, however, that (46a)—haplologizing *the*—is unacceptable, while (46b)—haplologizing *this*—is of course an acceptable string, but not a good paraphrase of (47).

(46) a. **this tall men*
      b. #*the tall men*   (unacceptable as a paraphrase of (47))

(47) *the men this tall*

One possible analytical response to this would be to just assume that Distinctness-induced haplology *must* follow Distinctness-induced movement, and that if the latter cannot apply,

---

[19] The facts concerning bare plurals are more murky:

(i) a. **I'd never buy this old clothes.*
     b. *I'd never buy this many clothes.*
     c. ?*I'd never buy this few clothes.*

See Kayne (2005: ch. 8) for discussion, and Selkirk (1977: 316fn11) on the possibility of using *these many* for *this many* in the idiolect of certain speakers.

the former cannot either. This conclusion, however, will face some serious challenges in § 7, so that it might be worthwhile, glancing ahead, to look for an alternative explanation of the facts.

Such an alternative might build on two observations that hold true of all the instances of haplology we have seen so far, including those at play in the English Saxon genitive: first, all instances of haplology so far have targeted the second (i.e. lower) member of a Distinctness-offending linearization statement; second, all of them have only targeted definite or indefinite articles (*the*, *a(n)*, and ∅), and never demonstrative elements like *this*/*that* or quantifiers like *any*/*no*—a restriction plausibly motivated by the general need for recoverability that any deletion process has to meet. If we take these two observations not as coincidences but as *bona fide* constraints on haplology, then we might correctly predict that, given a structure like [*the* [*this tall*] *men*], it should be impossible to delete *the* because it is not the second member in the offending statement ⟨D_{the}, D_{this}⟩, and it should be impossible to delete *this* because its deletion would not be recoverable—and likewise for similar cases.[20] Of course, the accuracy of this line of explanation will depend on that of the two constraints in question—an issue in need of further scrutiny over a larger set of data, and which I'll have to leave to future research for now.

6.2   What kind of haplology?

Another set of questions we need to address in this domain has to do with the exact characterization of the repair (or avoidance) strategy that I have referred to as haplology so far. One may ask, in particular, how radically the haplologized structure differs from the structure we would expect if it were not for Distinctness. Under one possibility, for example, the haplologized phrase marker that is eventually fed to the linearization algorithm ends up not containing either the haplologized D or any of its projections, as if that D had never been part of the numeration. By contrast, under a conceivable alternative, haplology prunes the phrase marker only to the extent that that is necessary to ensure compliance with Distinctness—i.e. it spares, among the projections of the haplologized determiner, all those that do not *per se* violate Distinctness.

Recursive applications of haplology might give us a way to decide this issue on empirical grounds, at least under certain ancillary assumptions—and the decision seems to lean in favor the latter, "minimal-pruning" alternative. Imagine, for example, a computer-graphics context in which different background colors come in different "sizes", in terms of the bits per surface-unit that they add to their whole image file, or some other similar metric. We may thus enquire about the size of the color of someone's preferred background. The only way to do so by means of the construction under discussion requires haplology of all the determiners except for the most deeply embedded one, as illustrated

---

[20] One may wonder whether these two novel constraints could suffice by themselves to also explain all the movement–haplology interactions we've observed so far, with no need to invoke serial ordering of repairs anymore. The answer appears to be no: we still need to accord movement priority regardless of the constraints at issue. In an example like (i), for instance, *a nice color* must still move up across *little*, even though haplology *could* licitly target its indefinite article *a*, which would be both recoverable and (prior to movement) lower than the whole nominal's D head.

(i)   a.   *That's a nice color little car you've got there!*
       b.   **That's a little nice color car you've got there!*

in (48a).[21]

(48) a. *What size color background would you prefer?*
    b. **What size color a background would you prefer?*
    c. **What size a color background would you prefer?*
    d. **What size a color a background would you prefer?*

Now, if all the projections of the haplologized D of *color* were to be pruned along with that D itself—that is, if the phrase *what size color* were not a DP but an NP (or some functional category lower than D)—then it would be hard to see why we should need further haplology targeting the D of *background*, viz. why the variant in (48b) should turn out unacceptable. The question arises because, in the tree represented (without traces) in (49), D_1P and D_3 would not be in a c-command relation, and should therefore be able to leave each other alone for Distinctness purposes, contrary to fact.

(49)
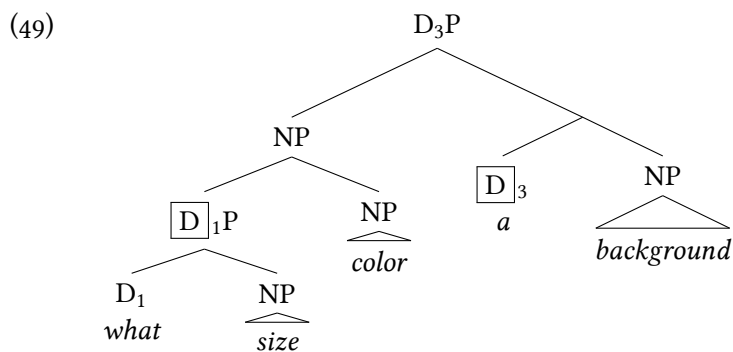
By contrast, we straightforwardly predict the facts in (48) if we assume that the haplology triggered by the linearization statement $\langle D_1P, D_2 \rangle$ in (50a) only results in pruning the lower of the two offending nodes—i.e. D_2—without thereby affecting any of that node's projections. The phrase *what size color* thus continues to be a DP despite the haplology of its D head, and incurs a Distinctness violation together with D_3 in (50b), thus causing further haplology on D_3 as in (50c).
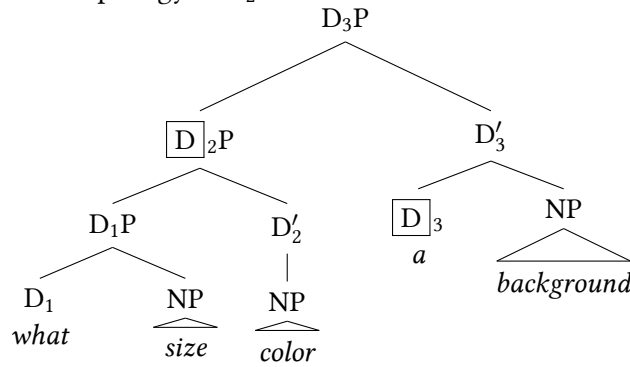
(50) a.

---
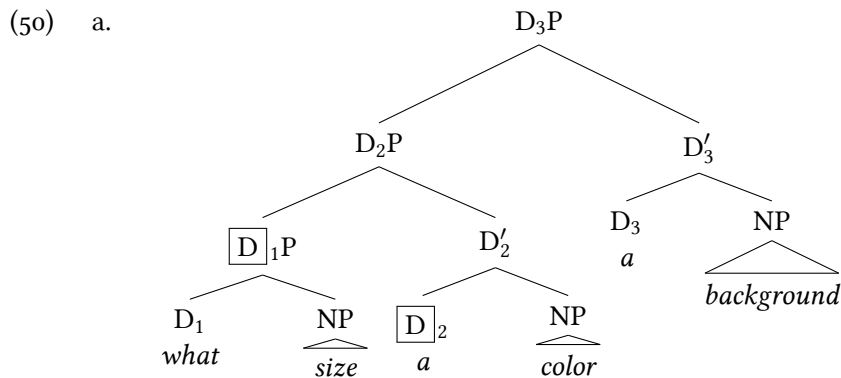
[21] By contrast, "attribute" DPs can freely form recursive structures if they are postnominal, as expected under our current assumption that English postnominal modifiers are their own Spellout domains.
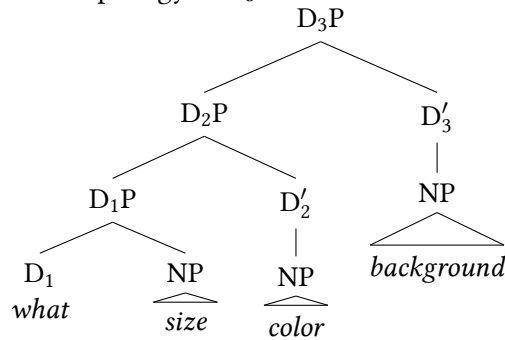
(i)   *I've never used a background [a color [this size]]*

b.   After haplology of D_2:

```
                    D₃P
              ┌──────┴──────┐
            [D]₂P           D′₃
          ┌───┴───┐       ┌──┴──┐
        D₁P      D′₂     [D]₃   NP
      ┌──┴──┐     │       a   background
     D₁   NP     NP
    what  size  color
```

c.   After haplology of D_3:

```
                    D₃P
              ┌──────┴──────┐
            D₂P             D′₃
          ┌───┴───┐         │
        D₁P      D′₂       NP
      ┌──┴──┐     │    background
     D₁   NP     NP
    what  size  color
```
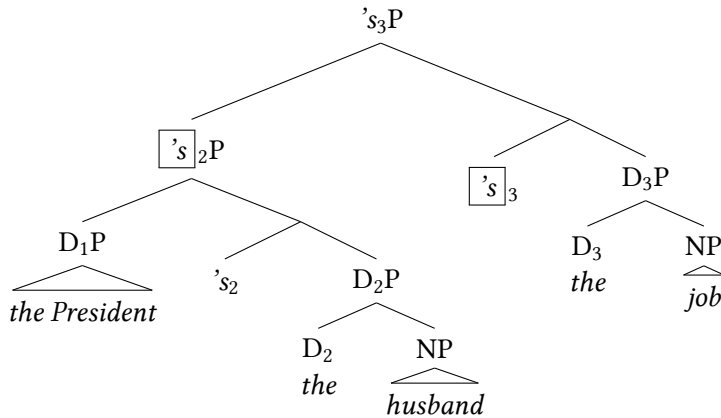
The same pattern, whereby only the most deeply embedded determiner is allowed to survive, is also observed in the Saxon-genitive construction, bringing further support to the idea that it should receive an account largely parallel to that of *this color car*.

(51)   *the President's (*the) husband's (*the) job*

These facts about genitive recursion may also help us, incidentally, to narrow down the range of viable analyses for this construction. It turns out, for example, that a *prima facie* plausible analysis like (52) would generate two wrong predictions: on the one hand, it would predict 's_2P and 's_3 to violate Distinctness together, thereby triggering haplology of 's_3; on the other hand, it would also predict D_3 to be Distinctness-compliant and hence exempt from haplology. The facts of the matter are exactly the other way around: 's_3 does not undergo haplology, whereas D_3 does.

(52)

```
                         's₃P
                  ┌────────┴────────┐
                ['s]₂P             ┌─┴──┐
             ┌────┴────┐         ['s]₃  D₃P
           D₁P       ┌──┴───┐          ┌─┴──┐
      the President 's₂    D₂P        D₃   NP
                         ┌──┴──┐      the  job
                        D₂    NP
                        the husband
```

17

By contrast, things do work out as desired under an alternative analysis like (53), inspired by Kayne (1994: §3.5) and ultimately tracing back to Szabolcsi (1981)[22]—though, once again, only under the assumption that D_2P remains a DP even after Distinctness-induced haplology of its head D_2.

(53)   a.
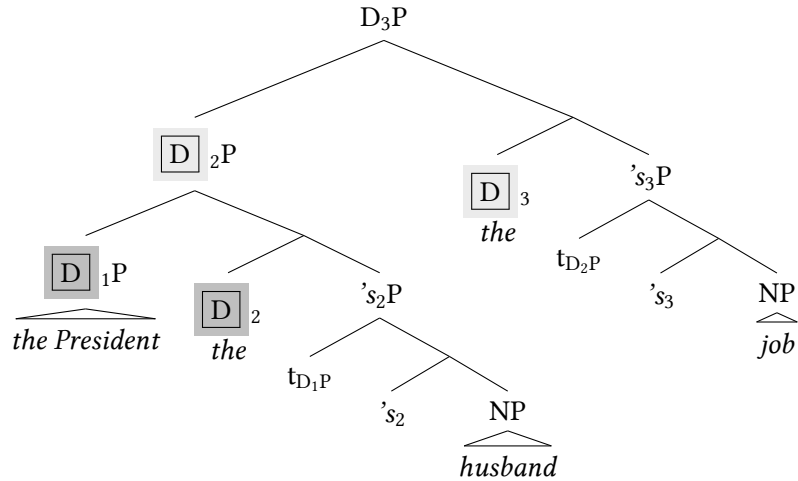
b.   After haplology of D_2 and D_3:

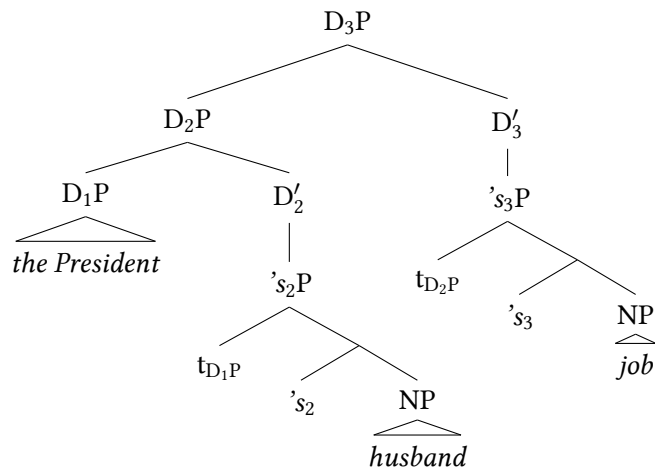Although this is not the only conceivable story,[23] this strikes me as the most straightforward account of the relevant facts, and I will therefore adopt it from here on.

---

[22] The analysis in (53) differs from Kayne's (1994) Szabolcsian proposal with respect to the final landing site of the possessor's movement—the specifier of 'sP (at least in the overt syntax) for Kayne, the specifier of the whole DP for me—in the interest of consistency with the idea that Distinctness-induced haplology should always target the lower member of the offending linearization statement (cf. §6.1).

[23] An alternative, due to Norvin Richards (p.c.), would be to adopt Kayne's (1994) definition of c-command after all, and thereby to predict that the D_1P in Spec,D_2P will also "periscopically" c-command nodes outside D_2P and enter into Distinctness interactions with them. My reasons for resisting this suggestion are the same I briefly outlined at the end of §3; see especially the discussion of (18), as well as fn. 8.

   Yet another set of alternatives, due to David Pesetsky (p.c.), would be to have multiple haplologies apply simultaneously within a given Spellout domain, or serially from the top down. I am resisting these suggestions too, as they seem to conflict with the evidence for stricter bottom-up cyclicity which I will present in §7 below.

7 Distinctness interactions between # heads

7.1 *Those color(*s) car*(s)*

So far I have been operating on a simplified cartography of the DP, as if the only relevant functional category were D itself. It has been established, however, that the functional structure of the nominal is far richer than that, and amenable to much the same questions as I have been exploring so far. One interesting puzzle, in particular, emerges from the purported Distinctness interactions involving instances of #—a functional category that in English is commonly realized as a suffix on the noun, but which has been argued to be located right below D in the nominal's functional sequence.

The puzzle is posed by examples like (54).

(54) a. *I do not want to drive a white, cream, silver or gold car.* [...] *No offense to you all who drive* **those color cars**.[24]
     b. **How many different color chrysanthemums** *are there?*[25]

In (54a), *those color cars* serves as a close paraphrase of *cars (that are) those colors*. We thus seem to interpret *those color* as a constituent—and *color* as a plural, despite its lack of plural morphology. Similarly, on the intended interpretation, (54b) is a question about the number of chrysanthemum colors, not about the number of chrysanthemums, and *how many different color* is therefore interpreted as a plural DP, again in spite of the lack of *-s* on *color*. The fact that plural number is unrealized in these strings but present in their interpretation is suggestive of a haplology process on the way from the syntax to PF. Furthermore, it turns out that the plural on *color* may go missing only if the bigger DP's lexical-head noun (*cars, chrysanthemums*) is itself a non-deleted plural—a constraint that looks very much like a recoverability condition on deletion.[26]

(55) a. **I'd never wear those color shirt.*
     b. **How many color shirt were you wearing?*

Finally, one more reason to treat examples like (54) in terms of Distinctness-induced haplology comes from contrasts like (56). While the plural on *color* must go missing if the "attribute" DP is in prenominal position, it need not (and in fact cannot) be deleted if the "attribute" DP is postnominal—a finding consistent with our idea that postnominal modifiers form their own Spellout domain, and are therefore shielded from Distinctness interactions with the rest of the DP that contains them ((56)). Also consistent with this idea is the fact that postnominal "attribute" DPs may also be plural regardless of whether their containing DP is plural or not ((57)).

---

[24] `http://taylor-family-blog.blogspot.com/2013/`, pointed out to me by David Pesetsky (p.c.).

[25] `https://www.westlakehardware.com/frequently-asked-questions/`
`how-many-different-color-chrysanthemums-are-there/`

[26] The relationship between singular and plural in this respect appears to be asymmetric: a singular # in the *color* DP may be (string-vacuously) haplologized even if the containing DP's # is plural.

(i)   *Black nails are* [[*my favorite color*]$_{SG}$ *nails*]$_{PL}$

We may make sense of this asymmetry by assuming that the plural's number features form a proper superset of the singular's (see e.g. Vanden Wyngaerd 2018), and that deletion of a number-feature bundle must be licensed by the presence of a c-commanding superset bundle. See Caha (2019) for in-depth exploration of an analogous idea about case features in the context of Ossetic "case competition."

(56) a. *I've never seen these {color/*colors} cars.*
     b. *I've never seen cars these {colors/*color}.*

(57) *I've never seen a car these colors.*

There are therefore several reasons for expecting the effect in (54) to fall under the purview of our theory of Distinctness. The problem is, however, that the theory, as it is currently formulated, does not predict any such effect to arise. This is because, under the (trace-free) representation in (58), the # head in the "attribute" DP and the # of the containing DP should not be in an asymmetric c-command relation, and therefore should not interact with each other for Distinctness purposes—much as the D(P?) *this* that is buried inside [[*this*] *reliable*] does not interact with *a* in [[[*this*] *reliable*] [*a fellow*]].
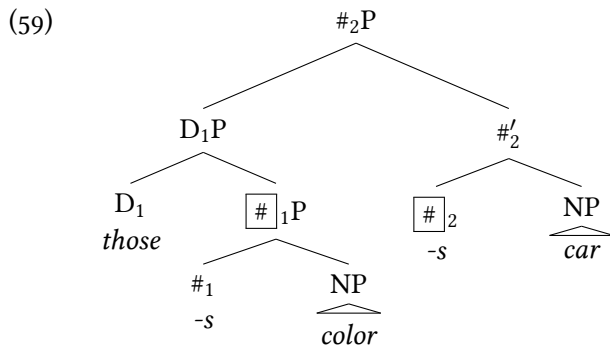
(58)

```
                        D₂P
              ┌──────────┴──────────┐
            D₁P                     D′₂
        ┌────┴────┐                  │
       D₁       [#]₁P              [#]₂P
      those    ┌──┴──┐           ┌───┴───┐
              #₁     NP         #₂      NP
              -s    color       -s      car
```
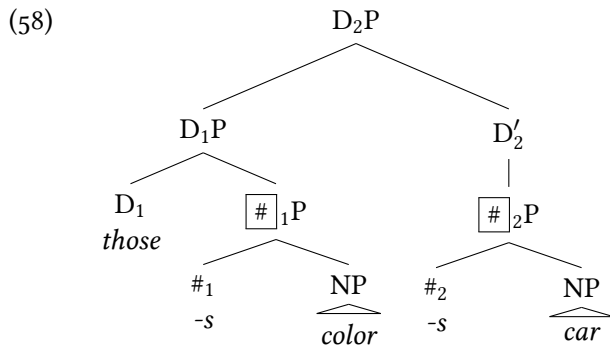
Furthermore, the problem arises regardless of whether or not we think that haplology of D₂ would let D₂'s projections survive. Even in the alternative structure in (59), whereby the whole nominal is represented as a #P rather than as a DP, the two # projections still do not stand in an asymmetric c-command relation, given our necessary assumption that single-bar levels can neither c-command nor be c-commanded.

(59)

```
                      #₂P
             ┌─────────┴─────────┐
           D₁P                   #′₂
       ┌────┴────┐            ┌────┴────┐
      D₁       [#]₁P        [#]₂       NP
     those    ┌──┴──┐        -s        car
             #₁     NP
             -s    color
```

Why then do we need to haplologize one of the #'s?

    If we stick to our earlier assumption that Distinctness-induced haplology always targets the lower member of a Distinctness-offending linearization statement, an answer begins to suggest itself. The # head in the "attribute" DP (i.e. the target of haplology) was indeed the lower one before the "attribute" DP itself got moved into the bigger DP's specifier. This means that haplology must have applied *at that time*, before movement to Spec,DP took place.

(60)

```
              D₂P
             /   \
          D₂      #₂P
                 /   \
              [#]₂    \
               -s      \
                  D₁P    NP
                 /  \    ‿
               D₁   #₁P  car
             those  /  \
                 [#]₁   NP
                  -s    ‿
                       color
```
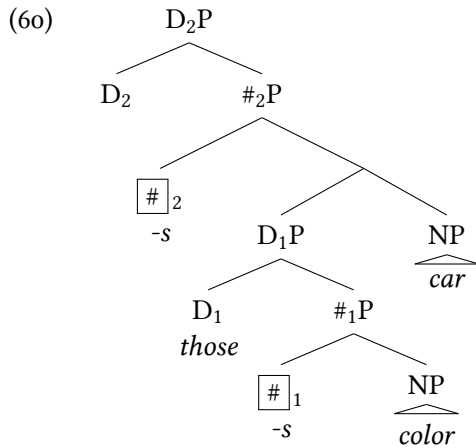
Why couldn't we wait for movement to happen? Here is a possible answer: Because # has no specifier position available as a landing site and because every Distinctness violation must be repaired *within the smallest maximal projection in which it occurs*. From these assumptions, it follows that any Distinctness interaction between #'s will be impossible to repair via movement, and that haplology of the lower # will have to immediately apply. Later in the derivation, a constituent dominating the haplologized # might then move into a higher position, such as Spec,DP in our case, and thereby disrupt the configuration that motivated haplology in the first place—but it will then be too late to undo it. What we are dealing with, on this account, is a classic instance of counterbleeding: movement happens too late to bleed haplology.

7.2 Two more cases of early haplology

Before dwelling on the theoretical implications of this account, let me first try to support it further by extending it to a couple more empirical puzzles. The first one comes, once again, from the Saxon genitive construction—more specifically, from the well-known "missing *s*" effect observed in the genitive of regular plurals ((61b)).[27]

(61) a. *That cat's tail was moving energetically.*
      b. *Those {cats'/*cats's} tails were moving energetically.*

---

[27] Notice that this haplology is not commonly observed with singular stems accidentally ending in *-s: James's coat* ∼ ?**James' coat*. Formal idiolects that admit *James' coat* just involve a phonologically conditioned allomorphy rule for the genitive, as in (i), which renders examples like (61b) uninformative.

(i)   GEN → ∅ / [+ANTERIOR +CORONAL +CONTINUANT +STRIDENT] ___

An attempt to extend this genitive-allomorphy approach to more current dialects, as e.g. in (ii), would have trouble accounting for the grammars of those speakers who have the contrast in (iii) (Huddleston and Pullum 2002: 481). This constrast is instead predicted by the Distinctness-based account on the assumption that the complement of *of*, viz. [*my students*], forms its own Spellout domain, shielding its # head from Distinctness interactions with anything outside.

(ii) GEN → ∅ / /s/ₚₗ ___

(iii) a. *my students'(*s) assignment*
      b. %[*one of my students'*]*s assignment*

My account of this effect is exactly analogous to the one I offered for *those color(*s) cars*. Regardless of whether Kayne's (1994) *'s*P is located above or below the #P of the whole possessum nominal, the possessum's # head will in any event end up c-commanding the possessor's # head, and the assumed requirement to repair the Distinctness violation *in the maximal projection it first arose in* will thus force immediate haplology of the possessor's #. Here too, the subsequent movement of the possessor DP into the specifier of the whole possessum DP will take place too late to rescue the haplologized #.

(62)
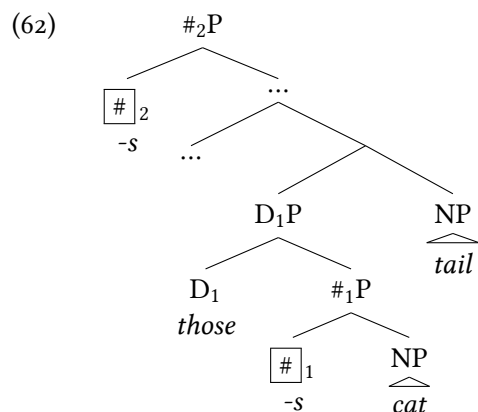
While traditional orthography treats the only *s* surfacing in (61b) as a plural marker conditioning a silent genitive, the current reasoning thus leads us to the opposite conclusion: in fact, what is deleted is the plural, and what surfaces as *s* is the genitive. *Those cats' tails* is thus really *those cat's tails*—parallel to *those color cars*.[28]

As for the irregular nouns whose plural morphology survives alongside genitive *'s* in examples like (63), all we need to say is that such irregular plurals (*mice, oxen*) do not in fact contain an overt plural affix, but are just noun-stem allomorphs restricted to plural contexts and normally followed by a null plural affix ((64a)).[29]

(63) a. *these {mice's/*mouse's} memory*
      b. *those {oxen's/*ox's} nostrils*

---

[28] The parallel breaks down in one respect: unlike *those color car*(s)*, the Saxon genitive does allow the understood number of the possessor and of the possessum to mismatch in both directions:

(i) a. *Those children's toy*
     b. *That child's toys*

The "*color*-DP construction" thus seems to impose stricter recoverability conditions on #-haplology, maybe by virtue of its lower frequency or greater markedness.

[29] This analysis is also independently supported by Kiparsky's (1982) observation that, if a noun is the first member of an English compound, it normally cannot carry plural morphology, except for irregular forms: *mice-catcher* ∼ **rats-catcher*, and even *oxen-farmer* ∼ **pigs-farmer* and *children-friendly* ∼ **kids-friendly*.

(64) a. The analysis to be adopted

        #P
       ⟋＼
    N   #
   oxen-   ∅

$\sqrt{\text{OX}} \rightarrow$ *oxen* / __ PL
$\sqrt{\text{OX}} \rightarrow$ *ox* elsewhere
PL $\rightarrow \emptyset$ / N $\in \{\sqrt{\text{DEER}}, \sqrt{\text{OX}}...\}$ __
PL $\rightarrow$ *-s* elsewhere
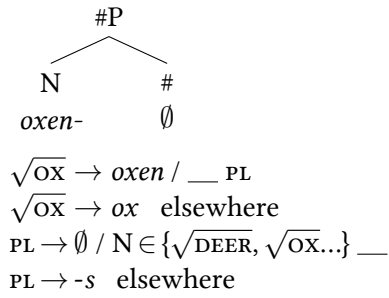
b. The analysis to be rejected

        #P
       ⟋＼
    N   #
    ox   *-en*

$\sqrt{\text{OX}} \rightarrow$ *ox*
PL $\rightarrow$ *-en* / N $\in \{\sqrt{\text{OX}}\}$ __
PL $\rightarrow \emptyset$ / N $\in \{\sqrt{\text{DEER}}, ...\}$ __
PL $\rightarrow$ *-s* elsewhere
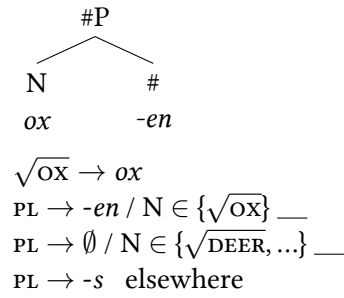
In examples like (63), then, #-haplology ends up being string-vacuous simply because the # morpheme was null to begin with, while the noun stem gets realized by a plural-specific allomorph (*mice, oxen*) via conditioning either by # itself (before #-haplology deletes it) or by some other plural trigger surviving in the local context—e.g. the immediately higher D, which bears plural as a result of concord (*these, those*). The details of the realizational implementation may be left open at this stage, but should not pose any real threat to the essentials of the account, as far as I can see.

Finally, the last #-related piece of evidence to the effect that Distinctness violations must indeed be repaired in the first maximal projection where they arise comes from the contrast in (65): overtly marked plural measure phrases are banned from prenominal modifiers but not from postnominal ones.[30]

(65) a. **A barely twenty years old student might be too young for this job.*
    b. *A barely twenty-year-old student might be too young for this job.*
    c. *A student barely twenty years old might be too young for this job.*
    d. **A student barely twenty(-)year(-)old might be too young for this job.*
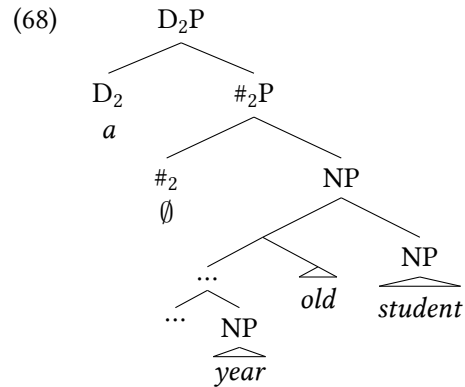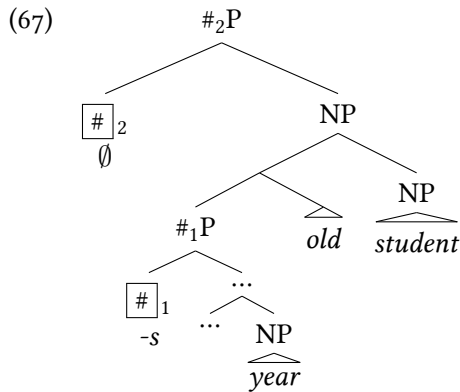
As usual, the absence of Distinctness interactions with postnominal modifiers is predicted on our assumption that such modifiers form Spellout domains of their own. By contrast, their prenominal counterparts may not contain a # head without entering into illicit Distinctness interactions with the # head of the whole DP that contains them. What distinguishes this case from those we have seen so far, however, is the fact that movement to Spec,DP just never enters the picture here.

(66) a. **[[Barely twenty year(s) old]$_1$ a t$_1$ student] might be too young for this job.*
    b. **[[Barely twenty year(s)]$_1$ an t$_1$ old student] might be too young for this job.*

But this, too, is predicted by the current proposal. Once again, a Distinctness violation arises upon the merger of #$_2$, and thus must be repaired within #$_2$P. Since movement to Spec,#$_2$P is not an available option, haplology of the lower offending head—#$_1$—takes place. Subsequently, when D$_2$ gets merged, Spec,D$_2$P becomes available as a landing site, but unlike with the DP *this color*, here there is no longer any Distinctness violation left in the structure, and hence no reason to move anything anymore. Haplology precedes the possibility of movement, and can therefore bleed its application.[31]

---

[30] While the prenominal contrast between (65a) and (65b) is well known to the literature (see e.g. Abney 1987: 337fn102), the reverse contrast between (65c) and (65d) has not, to my knowledge, been previously observed.
[31] There remain two unsolved problems. First, a few modifiers exceptionally retain plural morphology in prenominal measure expressions. For example, Abney (1987: 318fn99) reports the contrast between *an eons-*

(67)

```
                    #₂P
           ┌─────────┴─────────┐
        [#]₂                    NP
         ∅              ┌────────┴────────┐
                      #₁P            NP          NP
               ┌──────┴──────┐      old        student
            [#]₁            ⋯
             -s        ┌────┴────┐
                      ⋯          NP
                                year
```

(68)

```
                    D₂P
           ┌─────────┴─────────┐
         D₂                    #₂P
          a           ┌─────────┴─────────┐
                    #₂                    NP
                     ∅            ┌────────┴────────┐
                                 ⋯          NP         NP
                          ┌───────┴───┐    old       student
                         ⋯            NP
                                     year
```

7.3 Early haplology and Distinctness cycles

Now that we have hopefully garnered enough evidence that Distinctness violations need repairing within the smallest maximal projection in which they arise, we may conclude by taking a closer look at the architectural implications of this idea. What emerges from it, in particular, is the coexistence of two different conceptions of cyclicity within Distinctness theory. On the one hand, there is overwhelming evidence that Distinctness interactions are Spellout-domain–bound, insofar as nodes c-commanded by a phase head H and nodes c-commanding H are systematically barred from interacting with each other for Distinctness purposes. Given this backdrop, we might have expected Spellout domains to also be the only structural chunks over which Distinctness would be checked or enforced—in line with the idea that Distinctness is a legibility condition imposed at PF, and that the PF interface is itself accessed phase by phase. However, what we have seen so far suggests instead that Distinctness is checked and enforced in much smaller and more frequent cycles—specifically, at every maximal projection. The cycles bounding the possible interactions and the cycles in which the illicit interactions are checked and repaired are therefore not the same.

This highlights a conceptual tension that is also detectable elsewhere—e.g. in much of Richards' (2016) work on Contiguity Theory. While we have reasons to believe that a certain constraint is imposed and motivated by the interface with PF, we also find evidence that that constraint has early effects in the narrow syntax, suggesting that "the grammar begins the building of PF representations earlier than previously thought, and that [...] these PF representations are not [necessarily — S.Z.] identical to the eventual PF outputs" (Richards 2016: 337).

---

old statue and *a years-old statue*; Peter Grishin (p.c.) suggests a similar contrast between *a months-long pause* and *a minutes-long pause*. Both contrasts suggest that we are dealing with lexical idiosyncrasies rather than with a systematic pattern.

The second problem, also partly foreshadowed by Abney (1987: 336), is that both haplology and DP-internal movement appear to be impossible with plural differentials of prenominal comparatives:

(i) a.   *a six inch(es) longer rod*
     b.   *six inch(es) longer a rod*
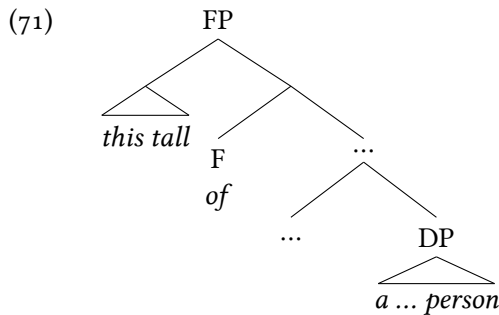
I do not know what should block #-haplology in (i-a).

8   Two remaining puzzles

In the previous sections, I argued that a Distinctness-based approach may account for several purported idiosyncrasies in the syntax of English nominals. Alongside what I take to be its achievements, I have also mentioned a few potentially related facts that the account cannot in its current form derive (see fn. 17, 28, and 31). In this section, I would like, before closing, to lay out two more such empirical puzzles—both quite mysterious to me, though fortunately not directly contradictory to any of my core claims so far.

The first puzzle is posed by the fact, first observed by Bresnan (1973: 298), that for a number of speakers (69a) and (70a) make acceptable (and sometimes even preferable) alternatives to (69b) and (70b), respectively—suggesting that degree expressions like *this tall* and *any better* may land into the specifier of some other projection higher than D, such as Kennedy and Merchant's (2000) F projection (cf. also fn. 11).

(69)   a.   *this tall of a person*
      b.   *this tall a person*

(70)   a.   *any better of a person*
      b.   *any better a person*

(71)

```
              FP
           /      \
        /    \      \
    this tall       \
              F        ...
              of      /    \
                   ...      DP
                            /\
                        a ... person
```

It might be tempting to treat the F/*of* in (69a) and (70a) as an epenthetic phase head inserted to separate the two nondistinct determiners from each other—a function that the same preposition plausibly does serve in other examples, such as *the destruction of the city* or *that fool of a doctor*. However, if the account I developed in § 4.1 is on the right track, there should be no need to insert any such extra phase heads, because the reconfiguration of c-command relations via movement should suffice to repair the original Distinctness violation, on the assumption that *this tall* and *any better* are not themselves DPs. One might instead conjecture, then, that maybe such phrases *are* in fact being reanalyzed as DPs by those speakers who accept (69a) and (70a). However, the uniformly negative response I have gotten from DP-hood diagnostics (cf. (12)–(13)) seems to cast doubt on this account. The reason for the optional presence of *of* thus remains very much an open puzzle.

Another open puzzle emerges from the fact that the correlation between being a Distinctness-offending determiner and being a trigger of DP-internal movement appears to only go in one direction. While all the determiners used in degree expressions (*this, that, any, no*) are correctly predicted to move to the specifier of the DP that contains them, they are not the only degree-related heads to participate in movement of this kind. In particular, as noted by Bresnan (1973), analogous movements are observed for *how, so, as*, and *too*—and while one could of course assume that these heads are determiners too,[32] there seems to be no independent evidence that would support that move.

---

[32] This is apparently implied by the label "Det" which Bresnan (1973: 277) assigns to this class (with the addition of *-er*).

(72) a. *{this/that} tall a man*
     b. **{a {this/that} tall man*

(73) a. *{any/no} taller a man*
     b. **a(n) {any/no} taller man*

(74) a. *{how/so/as/too} tall a man*
     b. **a(n) {how/so/as/too} tall man*

(75) a. *{how/so/as/too} much taller a man*
     b. **a(n) {how/so/as/too} much taller man*

Of course, nothing in our theory necessitates the conclusion that Distinctness ought to be the only trigger of movement to Spec,DP; other independent triggers may well exist, too. This is *prima facie* especially plausible for examples like (76), where the *wh*-item *how* is pied-piping the whole DP *how large a pizza* to the specifier of CP.

(76)   [[*How large*]$_1$ *a* t$_1$ *pizza*]$_2$ *did you order* t$_2$?

Since it can be independently shown that pied-pipers in English must be contiguous to the left edge of their pied-pipee ((77)),[33] we might view the DP-internal movement of *how large* as an instance of van Riemsdijk's (1985) "internal *wh*-movement," i.e. displacement of a *wh*-item to a particular position in order to enable that *wh*-item to pied-pipe. On this account, the DP-internal movement of *how large* would have nothing to do with Distinctness at all.

(77) a. *Whose pictures should we buy?*
     b. **Pictures of whom should we buy?*

A similar account in terms of "internal" Ā-movement, quite independent from Distinctness, might be devised for the DP-internal movement of *as* in *as*-fronting constructions like (78) and for that of *so* in literary constructions like (79), which Green (1985) refers to as "extent–result inversion."

(78)   [[*As humble*]$_1$ *a* t$_1$ *man*]$_2$ *as he was* t$_2$, *he would recoil from being described as brilliant*.[34]

(79)   [[*So big*]$_1$ *a* t$_1$ *fuss*]$_2$ *did they make* t$_2$ *that we all had to agree*.

There are two problems with such explanations, though. First of all, they fail to generalize to *too*, which never seems to pied-pipe DPs to any Ā-position. Secondly, it turns out that, even for *how/as/so*, the relevant DP-internal movement remains obligatory even if the whole DP ultimately remains *in situ*, showing that the correlation between DP-internal and -external movement cannot be all that direct.

(80) a. *Who ordered* [[*how large*]$_1$ *a* t$_1$ *pizza*]?
     b. **Who ordered* [*a* [*how large*] *pizza*]?

(81) a. *He was* [[*as humble*]$_1$ *a* t$_1$ *man as his father*].
     b. **He was* [*an* [*as humble*] *man as his father*].

(82) a. *They made* [[*so big*]$_1$ *a* t$_1$ *fuss that we all had to agree*].
     b. **They made* [*a* [*so big*] *fuss that we all had to agree*].

I leave it for further study to assess whether such difficulties may eventually be overcome or an altogether different approach should be pursued instead.[35]

---

[33] See Richards (2020) for references, further examples, and qualifications, as well as for a Contiguity-theoretic account.

[34] From M.A. Pollard, "Francis D. Morrissey: A life in the law," *The John Marshall Law Review* 41 (2007): vii.

[35] Evidence that the pattern of at least *so, as,* and *too* might in fact be an English-specific quirk comes from the

9 Conclusion

In this paper, I have attempted to corroborate and expand on Richards' (2010) theory of Distinctness—a ban on any Spellout domain in which two instances of the same functional category stand in an asymmetric c-command relation. More specifically, I have argued that Distinctness, though originally motivated by a quite different set of data, may shed light on several problems in the internal syntax of the English DP.

First of all, Distinctness affords a unified explanation of the paradigm in (83) and the hitherto-undescribed paradigm in (84), both of which would seem like mere idiosyncrasies otherwise.

(83) a. *I've never seen* [[***that***$_D$ *tall*]$_{XP}$ [***a***$_D$ *person*]].
      b. **I've never seen* [***a***$_D$ [[***that***$_D$ *tall*]$_{XP}$ *person*]].

(84) a. *I'd never buy* [[***that color***]$_{DP}$ *car*].
      b. **I'd never buy* [***a***$_D$ [***that color***]$_{DP}$ *car*]].
      c. **I'd never buy* [[***that color***]$_{DP}$ [***a***$_D$ *car*]].

Furthermore, a Distinctness-based approach reveals rich interactions between different repairs (movement as in (83), deletion as in (84)) in the derivational histories of DPs. In this connection, I have specifically proposed the two principles in (85).

(85) a. Every Distinctness violation must be repaired within the smallest maximal projection in which it occurs.
      b. The first Distinctness repair strategy to be attempted must, whenever possible, be movement. Only if movement cannot apply—or does apply but fails to accomplish any repair—may repair via deletion be attempted next.

These principles account, *inter alia*, for two types of apparent "overrepair": on the one hand, cases in which (85a) forces early repairs that subsequent operations render idle in the end-of-the-day representation; on the other hand, cases in which (85b) forces movement to apply first and deletion to apply second, even though deletion alone would have repaired the relevant Distinctness violation just as well.

Overall, this suggests that the internal syntax of the English DP is both richer and more principled—in short, more interesting—than one might otherwise have thought.

---

fact that contrasts like the one between *so beautiful a painting* and **a so beautiful painting* "do not transpose to French, which positions phrases like *so beautiful* after the indefinite article *un* (just as with bare adjectives)" (Kayne 2005: 205), and the same holds for phrases like *aussi beau* (... *que*) 'as beautiful (... as)' and *trop beau* 'too beautiful'.

(i)   a. *Nous avons   vu   un si beau   tableau   que ...*   (French; Kayne 2005: 205)
          we   have.1PL seen a   so beautiful painting that
      b. **Nous avons   vu   si beau   un tableau   que ...*
          we   have.1PL seen so beautiful a   painting that

Further research into these constructions will hopefully also explain why in English the plural marking on *times* and *pages* may (in fact, must) be retained in (ii). From the present perspective, it might be that [*six times*] and [*100 pages*] each form their own Spellout domain—something I currently have neither independent evidence nor counterevidence about.

(ii) a. *This is* [[*six times*] *as effective*]$_1$ *a t$_1$ medication.*
      b. *This is 100 pages too long a book for John to read in one day.* (Bylinina 2013: 396)

References

Abney, Steven (1987). *The English noun phrase in its sentential aspect.* PhD thesis. Cambridge, MA: Massachusetts Institute of Technology.

Bhatt, Rajesh and Roumyana Pancheva (2004). "Late merger of degree clauses." *Linguistic Inquiry* 35: 1–45.

Bošković, Željko (2005). "On the locality of left branch extraction and the structure of NP." *Studia Linguistica* 59: 1–45.

Bresnan, Joan W. (1973). "Syntax of the comparative clause construction in English." *Linguistic Inquiry* 4: 275–343.

Bylinina, Lisa (2013). "Degree infinitival clauses." In *Proceedings of Semantics and Linguistic Theory 23*, pp. 394–411.

Caha, Pavel (2019). *Case competition in Nanosyntax: A study of numerals in Ossetic and Russian.* https://ling.auf.net/lingbuzz/004875.

Cinque, Guglielmo (1996). "The 'antisymmetric' programme: Theoretical and typological implications." *Journal of Linguistics* 32: 447–464.

—— (2010). *The syntax of adjectives: A comparative study.* Cambridge, MA: MIT Press.

Davis, Colin (2020). *The linear limitations of syntactic derivations.* PhD thesis. Cambridge, MA: Massachusetts Institute of Technology.

Green, Georgia M. (1985). "The description of inversions in Generalized Phrase Structure Grammar." In *Proceedings of the Eleventh Annual Meeting of the Berkeley Linguistics Society*, pp. 117–145.

Horvath, Julia (2017). "Pied-piping." In Martin Everaert and Henk C. van Riemsdijk, eds., *The Blackwell companion to syntax.* 2nd edn. Oxford: Blackwell.

Huddleston, Rodney and Geoffrey K. Pullum (2002). *The Cambridge grammar of the English language.* Cambridge: Cambridge University Press.

Kayne, Richard S. (1994). *The antisymmetry of syntax.* Cambridge, MA: MIT Press.

—— (2005). *Movement and silence.* Oxford: Oxford University Press.

Kennedy, Christopher and Jason Merchant (2000). "Attributive comparative deletion." *Natural Language and Linguistic Theory* 18: 89–146.

Kiparsky, Paul (1982). "From cyclic phonology to lexical phonology." In Harry van der Hulst and Norval Smith, eds., *The structure of phonological representations*, pp. 131–175. Dordrecht: Foris.

Matushansky, Ora (2005). "Going through a phase." In Martha McGinnis and Norvin Richards, eds., *Perspectives on phases*, pp. 157–181. Cambridge, MA: MIT Working Papers in Linguistics.

Newell, Heather (2008). *Aspects of the morphology and phonology of phases.* PhD thesis. Montreal: McGill University.

Partee, Barbara H. (1986). "Noun phrase interpretation and type-shifting principles." In Jeroen Groenendijk, Dick de Jongh, and Martin Stokhof, eds., *Studies in Discourse Representation Theory and the theory of generalized quantifiers*, pp. 115–143. Dordrecht: Foris.

Poole, Ethan (2017). *Movement and the semantic type of traces.* PhD thesis. Amherst, MA: University of Massachusetts.

Postal, Paul M. (1994). "Contrasting extraction types." *Journal of Linguistics* 30: 159–186.

Richards, Norvin (2001). *Movement in language: Interactions and architectures.* Oxford: Oxford University Press.

Richards, Norvin (2010). *Uttering trees*. Cambridge, MA: MIT Press.

—— (2016). *Contiguity Theory*. Cambridge, MA: MIT Press.

—— (2020). "Contiguity Theory and pied-piping." *Linguistic Inquiry* 51: 553–578.

Riemsdijk, Henk van (1985). "On pied-piped infinitives in German relative clauses." In Jindřich Toman, ed., *Studies in German grammar*, pp. 165–192. Dordrecht: Foris.

Rudin, Catherine (1988). "On multiple questions and multiple wh-fronting." *Natural Language and Linguistic Theory* 6: 445–501.

Sabbagh, Joseph (2007). "Ordering and linearizing rightward movement." *Natural Language and Linguistic Theory* 25: 349–401.

Sadler, Louisa and Douglas J. Arnold (1994). "Prenominal adjectives and the phrasal/ lexical distinction." *Journal of Linguistics* 30: 187–226.

Salzmann, Martin (2020). "The NP vs. DP debate. Why previous arguments are inconclusive and what a good argument could look like. Evidence from agreement with hybrid nouns." *Glossa* 5.1.83.

Selkirk, Elisabeth O. (1977). "Some remarks on noun phrase structure." In Peter W. Culicover, Thomas Wasow, and Adrian Akmajian, eds., *Formal syntax*, pp. 285–316. New York: Academic Press.

Stanton, Juliet (2016). "Wholesale late merger in Ā-movement: Evidence from preposition stranding." *Linguistic Inquiry* 47: 89–126.

Syed, Saurov and Andrew Simpson (2017). "On the DP/NP status of nominal projections in Bangla: Consequences for the theory of phases." *Glossa* 2.1.68.

Szabolcsi, Anna (1981). "The possessive construction in Hungarian: A configurational category in a non-configurational language." *Acta Linguistica Academiae Scientiarum Hungaricae* 31: 261–289.

Vanden Wyngaerd, Guido (2018). "The feature structure of pronouns: A probe into multidimensional paradigms." In Lena Baunaz, Karen De Clercq, Liliane Haegeman, and Eric Lander, eds., *Exploring Nanosyntax*, pp. 277–304. Oxford: Oxford University Press.

Williams, Edwin (1983). "Semantic vs. syntactic categories." *Linguistics and Philosophy* 6: 423–446.

Zyman, Erik (to appear). "Phase-constrained obligatory late adjunction." *Syntax*.