1. Why does the language faculty countenance movement? Chomsky (2005, 12) gives the following answer:
   (1) “...there are two subcases of the operation Merge...these are external and internal Merge, the latter the operation called "Move," which therefore also "comes free,"...” In other words, from the perspective of a Merge-based theory of syntax, the possibility of movement is immediately accounted for.
   (2) Why does the language faculty countenance deletion?
   In the spirit of (1), we would like to have an answer to (2). In this paper, I will try to make progress toward answering (2).

   There are at least two subtypes of deletion/ellipsis/silence. One is what used to be called 'recoverable deletion'. This type depends on the presence of an antecedent, as in VP-deletion:
   (3) Mary passed the exam but John didn’t.
   or NP-deletion:
   (4) John has published two papers this year, but Mary has published three.
   In both VP-deletion and NP-deletion, any lexical item can be contained in the deleted phrase, as long as the requisite identity condition is met with respect to the antecedent.

   A second type was sometimes called 'specified deletion', in which the same notion of antecedent is not relevant; typically, very specific lexical items are at issue. Examples are (with capital letters indicating silence/deletion):

   (5) at the age of seven  -  YEAR(S)
   (6) They won the game with two home runs in the seventh  -  INNING
   (7) New York  -  CITY; the Mississippi  -  RIVER
   (8) enough money  -  MUCH2
   (9) We must away (older English)  -  GO3

   These are just some examples from English. Other languages will allow some such, but not others. Comparative syntax work on what elements are subject to specified deletion and when exactly, in one language or another, promises to be of substantial interest and importance.

   We also need to ask, for (5)-(9), and in general, why the language faculty should ever allow elements that can perfectly well be pronounced (e.g., as much in (8)) to sometimes be unpronounced? In earlier work,4 I suggested that there are positions

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1 For additional examples, cf. Kayne (2005, Index, silence).
3 Cf. van Riemsdijk (2002).
(that are moved into) that Spellout automatically fails to see. The capitalized elements in (5)-(9) have ended up in such positions. No deletion operation need, then, be postulated at all for them, if that suggestion is on the right track. This would be a welcome result, insofar as Merge does not automatically or naturally provide the language faculty with deletion operations.

2. From the perspective of a Merge-based theory of syntax, the existence of movement, on the other hand, is accounted for along the lines of (1). In the previous paragraph, I alluded to a possible answer to the ‘why’-question concerning ‘specified deletion’. But what about ‘recoverable deletion’ of the sort seen in (3)-(4)?

I will focus primarily on NP-deletion, as in (4), repeated here:

(10) John has published two papers this year, but Mary has published three.

English NP-deletion is very productive, though as usual subject to restrictions. NP-deletion stranding a numeral, as in (10), is readily available, and the same is true with several, few, and many. With every, however, it is not available, as is well-known:

(11) *John attends every syntax conference and Mary attends every, too.

With some, NP-deletion is readily available with plurals and with count nouns:

(12) There are some newspapers in that room, and there are some in this room, too.
(13) If you put some sugar in your coffee, you should put some in your tea, too.

But not with singulars:

(14) Some guy came up to us yesterday in the park, and I gather that some *(guy) came up to you, too.

Nor can NP-deletion strand an article:

(15) *We need to see the newspaper, and you need to see the, too.
(16) *They have a daughter, and you have a, too.

Demonstratives sometimes can be stranded, and sometimes not. In my English a plural demonstrative allows stranding:

(17) Those books look interesting; these don’t.

Yet a singular demonstrative does not, at least not if the deleted NP is animate. For example, the following is not possible (for any speakers, I would guess):

(18) *I haven’t read much by that linguist, but I’ve read a great deal by this.

With inanimates, on the other hand, we do have:

(19) Have you read this yet?
(20) We’re not interested in that.

Examples (19) and (20) may, however, be more akin to the specified deletions of (5)-(9) than to recoverable deletions such as (10). That this is so is suggested by:

(21) We approved of that decision, but we can’t even understand how you arrived at this *?(decision).

It may be that (19) and (20) are possible only with silent THING or STUFF, in the manner of specified deletions.

Lexical possessors in English can easily be stranded by NP-deletion, as in:

(22) John’s paper is almost as good as Mary’s.

My English disallows those ones, these ones. For relevant discussion of one(s), see Kayne (2017) and references cited there.
But with pronominal possessors, there’s a well-known twist: 6

(23) My paper is almost as good as your *(s).

Finally, we can note that NP-deletion stranding an adjective is highly restricted in English: 7

(24) They have a young son, and we hear that you have a young *(son), too.
(25) That short paper is more interesting than this short *(paper).
(26) My recent paper is shorter than your recent *(paper).

Yet it is sometimes possible:

(27) There’s a book on the chair, and there’s another on the table.
(28) There were lots of houses on sale; why did you choose the biggest?
(29) They have a three-year-old to take care of.

Chomsky and Lasnik (1995, 126) suggest for English VP-deletion a deletion rule within the PF component. 8 Whatever the initial plausibility of that way of thinking about VP-deletion, 9 it would seem to have little plausibility for NP-deletion, insofar as the various (partial) restrictions discussed in (10)-(29) are far more likely to have to do with syntax than with PF.

In any event, in the next section I will suggest that NP-deletion as a dedicated deletion operation does not exist at all, in which case the restrictions of (10)-(29) must be interpreted as restrictions involving syntactic movement/internal merge.

3.

Let us return to (10), repeated here:

(30) John has published two papers this year, but Mary has published three.

with a key property of (10)/(30) now being that a direct counterpart of it is not possible in French.

It’s not that French lacks NP-deletion entirely. With definite DPs, French allows it:

(31) Passe-moi les autres. (‘hand me the others’)
(32) Passe-moi les rouges. (‘hand me the red’)
(33) Passe-moi le leur. 10 (‘hand me the their’ = ‘hand me theirs’)
(34) Passe-moi ceux qui sont prêts. 11 (‘hand me those that are ready’)

8The idea that there is a PF-component following syntax may well be valid; alternatively, phonological representations might be built up by Merge, in the way outlined (with too little detail) in Kayne (2016, note 74); cf. especially den Dikken and van der Hulst (2020).
10When the lexical noun is pronounced, there is no definite article visible:
   i) leur livre (‘their book’)
With other pronominal possessors, there are changes in form, e.g.:
   ii) mon livre (‘my book’)
   iii) le mien (‘the mine’)
11Again, there is a change in form:
   i) ces gâteaux (‘those cakes’)
   ii) ceux-là (‘those there’)

But with indefinites, there are notable restrictions. For example, if we translate into French the second half of (30) word-for-word we get:

(35) *mais Marie a publié trois (‘but M has published three’)

We can make (35) acceptable by adding a pronominal clitic en:

(36) mais Marie en a publié trois

This en can be thought of as corresponding to English of them. This is so, even though adding of them to (30) does not yield a perfectly acceptable result:

(37) ?John has published two papers this year, but Mary has published three of them.

This kind of of them, in which the antecedent of them is not an ordinary definite DP, is possible, however, in some other cases. For example, as pointed out to me a while back by David Perlmutter, one can have (in the context of somebody approaching a taxi stand):

(38) I need a taxi. Too bad, two of them/’em just went by.

Similarly, the following seems natural:

(39) They love cats. In fact, they have fifteen of them running around their house right now.

A key question, then, is why French needs en in (35)/(36). Why can French not get by with (35), as English does with (30)? The position that I would like to take is that in this case French is actually reflecting UG more transparently than English is. What French is telling us, I think, is that the language faculty allows NP-deletion only if there is a pronoun present that is associated with the deleted NP.

This associated pronoun must sometimes be pronounced, as it is in (36); sometimes it is preferably pronounced, as in (39) (and, I would say, (38)); sometimes it is preferably not pronounced, as in (30); sometimes it cannot be pronounced at all, as in:

(40) I like those books, but I prefer these (*of them).

(41) We like your papers, but we prefers hers (*of them).

Returning to the key question of two paragraphs ago, we can ask, more generally, why the language faculty would impose the presence of a pronoun (whether pronounced or not) on NP-deletion sentences. I would like to take this question to be

12 Or perhaps even better to older English thereof; cf. Kayne (2004a).
13 To my ear, this seems less good without of them:
   i) ?They love cats. In fact, they have fifteen running around their house right now
   This might be related to the interplay between NP-deletion and contrast, on which see
   Cinque (2012, 179n) and references cited there.
14 French does not always need en with indefinites involving NP-deletion:
   i) Trois ont été publiés hier. (‘three have been published yesterday’)  
15 The French counterparts of these would not allow en, either. Both the English and the
   French restrictions concerning an overt pronoun might be due to a blocking effect
   caused by definite D; cf. Fiengo and Higginbotham (1981) and Kayne (2019, chap. 7),
   though we would have to find a way to distinguish the text examples from:
   i) Syntax books are selling well these days, especially those of them that are less
   than 200 pages.
closely related to the question why resumptive pronouns are often visibly associated with movement.

More specifically, I would like to pursue the following idea:

(42) NP-deletion calls for a pronoun for the same reason that movement often calls for a (resumptive) pronoun.

I take the reason to be that NP-deletion is actually a subcase of movement, the key idea being that a pure deletion interpretation of what we now informally call NP-deletion would give us no handle at all on the need for \( en \) in (36).

If so, then by (1), NP-deletion is automatically available to the language faculty. (Furthermore, if (42) is generalizable to all recoverable deletions, i.e. if all recoverable deletions are subcases of movement/internal merge, then all recoverable deletions are automatically available in the sense of (1).)

4.

The type of movement that I have in mind for the subcase of NP-deletion is of the sort that I proposed in Kayne (2002) for control (and for antecedent-pronoun relations in general\(^{16}\)). According to that proposal, control looks as follows:\(^{17}\)

(43) tried to [John PRO] solve the problem

In (43), *John* starts out as a proper subpart of the phrase bearing the subject theta role of infinitival *solve*. *John* then moves into the subject theta position of *try*. *John* in (43), despite initial appearances, ends up with just a single theta role,\(^{18}\) insofar as the subject theta role of *solve* is borne by the bigger phrase *John PRO*, not by *John* alone. Put another way, in a control sentence like:

(44) *John* tried to solve the problem.

the phrase *John* moves up from a low position in which it doubles PRO, as in (43), into the position that we see as the antecedent of PRO.

Let me now spell out in somewhat more detail what this entails for NP-deletion. We have (30), repeated here:

(45) *John* has published two papers this year, but *Mary* has published three.

We now expect to have movement into the position of the antecedent, starting from a structure in which the antecedent doubles the (in this case silent, resumptive) pronoun. Thus we have:\(^{19}\)

(46) J...two papers..., but *Mary* has published three OF THEM PAPERS

In (46) PAPERS is the trace/silent copy of *papers*. But as in (43) *papers* in (46) does not play two identical roles. Pronounced *papers* is the full sister of *two*, but its trace/copy PAPERS is only a proper subpart of the sister of *three*, on the assumption that ‘THEM PAPERS’ (or perhaps ‘OF THEM PAPERS’) forms a constituent. *Papers* in

\(^{16}\) With the implication that discourse must be considered a subtype of sentence.

\(^{17}\) The question of the exact position of *to* is important, but not relevant here; for discussion, see Baltin (1995).

\(^{18}\) Contrary to Hornstein (1999); for recent criticism, cf. Wood (2017).

\(^{19}\) Future work will determine whether or not the silent OF is really needed here in addition to the silent pronoun. Similarly for the question whether THEM PAPERS, which would make the pronoun look more like a demonstrative, is or is not to be preferred to PAPERS THEM.
(45)/(46) has moved (via sideward movement\(^{20}\)) from a position following *three* into the position following *two*.

5. My taking the THEM of (45)/(46) and the *en* of (36) to be akin to resumptive pronouns of the sort that we associate with movement leads to further questions. If the doubling structures of the sort seen in (43) and (46) are correct, then classical resumptive pronouns should also involve a doubling structure, i.e. a sentence like:

(47) That’s the guy who I wasn’t sure if he was gonna show up or not.

should have *he* and *guy* originating within one complex DP, as proposed by Boeckx (2003, 28).\(^{21}\)

One question now is how widespread resumptive pronouns (including silent ones) are. Perlmutter (1972) took them to be systematically present in relative clauses.\(^{22}\) Consider the following possible pair of conjectures:

(48) Resumptive pronouns (and their associated doubling structure) are found with all movement operations (including now the type involved in NP-deletion) in which what is moved is a nominal phrase (NP/DP and possibly PP containing a nominal phrase).

(49) Resumptive pronouns (either pronounced or silent) are not found when movement involves a non-nominal constituent.

If (48) is correct (I won’t pursue (49) here), resumptive pronouns will be found with familiar A-bar movements such as wh-movement, topicalization, focus-preposing and clefting (with the last two possibly assimilable to each other\(^{23}\)). But (48) as stated also leads to the expectation that (pronounced or silent) resumptive pronouns should be found in one language or another with A-movement to subject or to object position, which seems contrary to the impossibility of sentences like:\(^{24}\)

(50) *John was arrested him/he last night.

(51) *Johns seems him/he to have been arrested last night.

(These might be independently excludable, though, for reasons of Case.)

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\(^{22}\) Note the interesting challenge posed by Cinque (1975), which might hinge on differences between silent and pronounced resumptive pronouns.

\(^{23}\) Cf. Frascarelli and Puglielli (2005) and Frascarelli (2010) for languages in which a focus marker is visible and Kayne (2021) for a generalization to sentences with contrastive focus-preposing (without any visible focus marker or visible cleft structure) of the sort discussed by Rizzi (1997, 286).

\(^{24}\) Though we do have:

i) There looks like there’s a problem here.

For recent relevant discussion, see Nunes (2019, sect. 4).
Sentences such as (50) and (51) are not, however, the only candidates available. Thinking of the tradition that takes agreement morphemes to be pronominal, one could imagine that what satisfies (48) in the case of A-movement to subject position is subject-verb agreement (and similarly for A-movement to object position or to object-of-P position). If so, then one could take (48) to underlie the existence within the language faculty of agreement with arguments. (DP-internal number and gender agreement might or might not be very different.)

*This paper corresponds very closely to a talk given earlier today (Nov. 6) at the 9th International Conference on Formal Linguistics, ICFL-9, Shanghai. It constitutes an expansion of part of Kayne (2017b).

References:

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Whether or not comparable interpretive effects hold with regard to the pronouns accompanying NP-deletion remains to be seen, and similarly for those accompanying VP-deletion, as discussed in Bentzen et al. (2012); cf. also Sportiche (1995). (I am setting aside familiar challenging questions about sloppy identity.)


27The strongest interpretation of this would preclude downward agreement. The question why (48) should hold (close to the question why apparently unnecessary pronouns are so widespread) remains to be answered, with the key point for this paper being in any case that (48) covers recoverable deletion.


