

On Certain Aspects of the Interaction between Cartography and Silent Elements*

Richard S. Kayne
New York University

October, 2021

Work on cartographic hierarchies¹ can in some cases be affected in important ways by work on silent elements. In what follows, I will try to show in a range of cases what I mean by this.

1.

For example, let us look at English sentences like:

(1) We're on the list, right?

(2) Where do they live, again?

These might well lead us to think that *right* and *again* are, in such sentences, instances of high sentence-final particles that could, whether via internal merge or not, be fit into a sentential hierarchy. Yet, the correct analyses of (1) and (2) are, rather, arguably as in the following (with capital letters indicating silence):²

(3) We're on the list, ISN'T THAT right?

(4) Where do they live, TELL ME again?

both of which are modeled on acceptable sentences such as:

(5) We're on the list, isn't that right?

(6) Where do they live, tell me again?

That is, *right* in (1) is best taken to be a reduction, in the sense of (3), of the *isn't that right* seen overtly in (5). Similarly, *again* in (2) is best taken to be a reduction of *tell me again*. If this is correct, then *right* and *again* in these examples are not sentence-final particles at all; *right* is an adjectival predicate and *again* is an adverb. Neither is to be placed in a high position within a cartographic sentential hierarchy. It remains to be seen, of course, how representative (1) and (2) are and to what extent sentence-final particles from other languages will call for silent-element-based reanalysis of the type indicated in (3) and (4).

2.

As a second example of the importance of silent elements for cartographic questions, consider English modal *need*, as found in sentences like:

(7) You needn't leave so soon.

This modal *need* might appear to straightforwardly fit into the IP area of a cartographic sentential hierarchy. Yet it may well be that modal *need* in (7) should instead be analyzed as originating from a structure like:³

(8) You n't HAVE need leave so soon.

¹Cf. Cinque (1999), Rizzi (1997) and much subsequent work.

²Cf. Kayne (2016).

³Cf. Kayne (2007) and Harves and Kayne (2012), going back to Isačenko (1974).

recalling sentences such as:

(9) You haven't any need to leave so soon.
in which *need* is nominal.⁴ (In (7)/(8), at least *need* will then raise past *n't*.) If (8) is the correct way of thinking of (7), the cartographic picture becomes more complex; the presence of silent HAVE in (7)/(8) would seem to make it impossible to take modal *need* to be a primitive element in an IP-centered cartographic hierarchy.

Another potential candidate for a silent-element-based decomposition of an apparent modal is:

(10) You should leave soon.
for which the following analysis may be appropriate:

(11) you should OUGHT leave soon
in which modal OUGHT cooccurs with what is arguably a conditional *should* that is closely related to *would*. Taking *should* to be a conditional would allow the *should* of (10)/(11) to more easily be linked to that of:

(12) That you should have left so soon surprised just about everybody.
The plausibility of (11) is enhanced by Curme's (1931, 414; 1935, 254) observation of the existence of non-standard examples like:

(13) You shouldn't ought to have done it.
How general the silent-element-based decomposition of (apparent) modals is remains for future work.

3.

In a somewhat different way from sentence-final particles and from modals, a silent predicate also seems appropriate for sentences like:

(14) The flowers are in the kitchen on purpose.
with an analysis along the lines of:

(15) the flowers are (have been) PUT in the kitchen on purpose
with *on purpose* in (14) now related to silent PUT, and to the understood agent of silent PUT,⁵ rather than being related directly to the overt copula. In other words, *on purpose* in (14) is, despite appearances, not part of any sentential hierarchy associated with *are*, given the presence of PUT.

The status of (14) would also appear to be indirectly connected to the argument (based on auxiliary selection in French vs. Italian) that I gave in Kayne (2009) in favor of attributing both a silent predicate CAUSE and a silent (non-agentive) causer to sentences like:

(16) The ice melted.

Both (14) and (16) have in turn something in common with a phenomenon called to my attention in this context by Marcel den Dikken (p.c.),⁶ namely the existence of verbs that are unaccusative (to judge in particular by auxiliary selection in Italian, say), yet allow an agentive interpretation for their subject, as in the following:

(17) They arrived late on purpose.

⁴On the nominal character of *need*, cf. related proposals by Hale and Keyser (1993; 2002).

⁵On the syntactic representation of which, see Collins (2005, sect. 6).

⁶Who points out the relevance of Zaenen (1993).

(18) They intervened strongly in the debate.

If the argument that ends up in subject position in such sentences starts out as an object-like argument of the unaccusative verb, how is an agentive interpretation licensed?

A solution that comes to mind, in the spirit of the discussion of (14) and (16), is to take (17) and (18) to be significantly similar to:

(19) They made themselves arrive late on purpose.

(20) They made themselves intervene strongly in the debate.

That is, we should associate with (17) and (18) derivations involving both a silent MAKE/CAUSE and an agent of MAKE/CAUSE, in which case *on purpose* in (17) will be linked to that agent phrase, rather than to the argument of *arrive*. (Which of the two arguments in (17) is silent and which corresponds to *they* needs to be looked into.)

4.

For a fourth case in which the presence of a key silent element looks to alter our view of what kind of hierarchy a given word fits into, consider what we think of as adverbial *well*, in sentences like:

(21) You may well be right.

in which *well* appears to be closely related to modal *may*. Yet against the background of the fact that *well* and *good* generally have much in common, it is tempting to think that (21) is closely related to:

(22) There's a good chance that you're right.

This suggests in turn that (21) should be given an analysis on the order of:

(23) you may HAVE well CHANCE be right.

in which *well* is actually a modifier of silent CHANCE, rather than of *may*. (The HAVE of (21)/(23) is presumably a close cousin of the HAVE of (7)/(8).) If so, then *well* in (21) is within a DP and part of whatever hierarchy is associated with that DP, and not part of the sentential hierarchy at all.

Pursuing this approach to *well*, we could take the *well* of:

(24) John must be well over 40.

to be parallel to the *good* of:

(25) John must be a good deal over 40.

with (24) then containing a silent nominal DEAL of which *well* is a modifier.

We might now ask how general we would expect this kind of analysis of *well* to be. One restrictive answer, correlated with the anti-homophony position (or principle or conjecture) put forth in Johns (1992, 84), Embick (2003, 156) and Kayne (2019, 137), would say that every instance of *well* that is functional (as opposed to strictly lexical, like the *well* that is a source of water) must reflect a single *well*. If so, then we would be encouraged to look in every such case for a silent noun that *well* would modify.

5.

In another area of English syntax we find:

(26) Their dog died on them yesterday morning.

with *on them* appearing to belong to a simple sentence whose main predicate is *died*. Alternatively, though, we might want to analyze (26) in a way that brings it close to the following:

(27) Their dog's death hit them yesterday morning.

and even closer to:

(28) ?Their dog's death came down on/fell (up)on them yesterday morning.

What this would amount to would be to take (26) to contain a tenseless small clause *their dog die* parallel to *their dog's death* in (28), as in:

(29) -d FALL [their dog die] on them yesterday morning.

In (29), the past tense -d goes (as it does in (28)) interpretively speaking with FALL, whose silence allows the (mistaken, if I'm right) impression that -d in (29) is interpretively speaking associated directly with *die*.⁷ As the derivation of (26) continues, starting from (29), in which *their dog die* is the theme argument of unaccusative FALL, the two subparts of *their dog die* will raise (probably separately) past -d (and past FALL),⁸ with *the dog* ending up in any event in matrix subject position.

6.

All of the preceding have something in common, I think, with what we can take to be a sixth case in which the presence of silent elements affects our cartographic picture. Let me begin with the subcase of color adjectives, which might be thought to lend themselves to being placed directly into a DP-internal cartographic hierarchy associated with a pronounced lexical noun, as in:

(30) They just bought a blue car.

in which *blue* is easy to take to be a modifier of lexical *car*. However, the proper analysis of this kind of sentence is more likely to be as in:

(31) They just bought a blue COLOR car.

in which *blue* is a modifier of silent COLOR (as it can be of pronounced *color*), rather than of *car*. If so, then *blue* is not itself directly in such a DP-internal hierarchy (although 'blue COLOR' could be).

Other adjectives call, I suspect, for comparable analysis. For example, *small* in:

(32) They just bought a small car.

should be analyzed as in:

(33) they just bought a small SIZE car.

with SIZE in (32)/(33) strongly parallel to COLOR in (30)/(31).

Probably a bit less close to COLOR than SIZE is, yet still fairly close, is the silent noun NUMBER of sentences like:

(34) They have few friends.

Although *few* in (34) is adjectival, as indicated by the existence of the forms *fewer*, *fewest*,⁹ there is good reason to take (34) to be as in:

(35) they have few NUMBER friends.

in which *few*, though still an adjective, is a modifier of NUMBER, not of *friends*. The analysis in (35), which is supported by the relative acceptability of:

(36) Of all our students, John's the one who's written the fewest number of papers this year.

⁷Whether this sort of analysis is appropriate for any of the various datives found in Romance languages needs to be looked into.

⁸If *die* raises past -d as a head, rather than as a remnant, an HMC question arises, on the assumption that the HMC sees silent elements..

⁹As noted by Jespersen (1970/1914, 106).

implies that *few*, contrary to initial appearances, cannot be part of the DP-internal hierarchy associated with *friends*.

The presence of silent COLOR, SIZE, NUMBER in the preceding is not to be thought of as an accidental fact of English. Instead, we should be thinking in terms of what I called in Kayne (2005a) a Principle of Decompositionality, stated there as:

(37) UG imposes a maximum of one interpretable syntactic feature per lexical item. The idea was and is that no lexical item can be so complex as to simultaneously introduce, as in, say, (30), both the notion of color and the notion of a portion of a color scale. The adjective *blue* can pick out a portion of the scale, but color itself must be introduced separately, by the noun *color* or its silent counterpart COLOR.

As a final example of this general sort, i.e. of an adjective not modifying the noun that it at first appears to modify, consider:¹⁰

(38) There will be three different wines at dinner today.
which readily lends itself to the following analysis:

(39) there will be three different KIND wines at dinner today.
in which *different* is more closely associated with silent KIND than with pronounced *wines*. (Future work will need to address the question of how extensive the available set of silent nouns like COLOR, SIZE, NUMBER, KIND is, as well as the question of the extent to which languages differ in their use of them, not to mention the familiar question of what exactly their licensing conditions are.¹¹)

7.

In the spirit of all the preceding discussions, one might wonder about the degree of similarity between focus-preposing and cleft sentences, with the possibility existing that focus-preposing necessarily involves a matrix copula (either silent or pronounced) comparable to that seen in clefts, rather than a FocusP in the CP area in exactly the sense of Rizzi (1997).

That focus preposing might consistently involve a bisentential structure is suggested by what Ofori (2011) says about Akan: “The basic focus marker, we argue, is an equational copula/verb that joins a focused-unit and a presuppositional-constituent”.¹²

¹⁰Postulating silent KIND has other motivation, as can be seen from the following:

(i) there is [the most beautiful KIND] house for sale...
(as in *There is the most beautiful house for sale...*)
(ii) [the same KIND] eyes
(as in *John has the same eyes as his mother*)
(iii) ...blue one KIND CAR -s
(as in *I prefer red cars, but you prefer blue ones*)
Cf. Kayne (2019, 149– 51, 233 n65).

¹¹For example, we have, in the context of baseball:

i) Our team won the game with two home runs in the seventh (inning).
ii) Our team won the game with two seventh *(inning) home runs.
iii) Our team won the game with two top of the seventh (inning) home runs.
which suggests that the licensing conditions for INNING are sensitive to the presence of a definite article.

¹²Cf. also Titov (2019).

Anna Szabolcsi (p.c.) has made a similar suggestion (based on work by Soo-Hwan Lee) regarding Korean NOM(inative)-marked items, noting that if focussed NOM-marked phrases were actually parts of clefts, then the seemingly dual role of NOM in Korean (as Case-marker and as focus-marker) would dissolve and become compatible with anti-homophony.¹³

Guglielmo Cinque (p.c.) has noted that Italian focus-preposing and Italian clefts differ with respect to negative phrases, which can be subject to focus-preposing, but cannot be clefted. This would appear to be unexpected, if focus-preposing involves a cleft-like derivation. However, Pollock (2021) notes that French interrogatives having the form of interrogative clefts, as in:

(40) *Qu'est-ce que tu fais?* ('what is it that you are-doing')
"despite their bi-clausal forms would best be rendered as simple mono-clausal Wh-questions in English...none have a cleft interpretation". Thus it might be that what we call focus-preposing is invariably, in whatever language, akin to French (40) in that respect.

8.

Somewhat related to the question of focus-preposing is the proposal I made in Kayne (1994, sect. 7.3), to the effect that right-dislocation of the sort seen in:

(41) *He's real smart, John.*
could be related to sentences like:

(42) *He's real smart, John is.*
That is, (41) might contain a silent copula parallel to the pronounced *is* of (42). If so, then *John* in (41) would not itself be in the Spec of any projection in the CP area of *He's real smart*, i.e. would not be associated with any part of the sentential hierarchy associated with *he's real smart*. (Whether this approach to right-dislocation can be extended to Cinque's (1990) CLLD remains to be seen.¹⁴)

9.

Finally, let me touch on the question of high adverbs such as *unfortunately*. The possibility exists of relating the following two sentences:

(43) *Unfortunately, you're late.*
(44) *It's unfortunate that you're late.*
which differ, however, with respect to wh-movement:

(45) **How unfortunately are you late?*
(46) *How unfortunate is it that you're late?*
which reduces the plausibility of deriving (43) from anything like (44).¹⁵
An alternative approach to (43) would attempt to link it to:

¹³Cf. Johns (1992, 84), Embick (2003, 156) and Kayne (2019, 137).

If focus-preposing is invariably associated with a cleft-like structure involving a copula, one will need to ask why the language faculty would have taken that path. Relevant may be den Dikken (2021), in particular if his 'relator' can be identified with the copula in question; cf. also den Dikken (2006).

¹⁴Cf. Ott (2014).

¹⁵For relevant discussion, see Nilsen (2003).

(47) The unfortunate thing is, (is) you're late.¹⁶
in which case, in a way partially similar to Ott (2014), *unfortunately* would not be in a high Spec position of the sentence *you're late* in (43) any more than *the unfortunate thing* is in (47).¹⁷ The impossibility of (45) might then (if *it* is set aside) be related to that of:

(48) *How unfortunate a thing is, (is) he's late?

10.

In conclusion, our understanding of cartographic hierarchies must go hand-in-hand with our understanding of the distribution and properties, in a given language and cross-linguistically, of silent elements of the various sorts discussed above.

* I am grateful to Guglielmo Cinque for helpful comments on an earlier version of this work. The present paper is a somewhat expanded version of a talk presented at the 4th International Workshop on Syntactic Cartography (IWSC), Beijing, on October 29, 2021.

References:

- Cinque, G. (1990) *Types of A'-Dependencies*, The MIT Press, Cambridge, Mass.
Cinque, G. (1999) *Adverbs and Functional Heads. A Cross-Linguistic Perspective*, Oxford University Press, New York.
Collins, C. (2005) "A Smuggling Approach to the Passive in English," *Syntax*, 8, 81-120.
Curme, G. O. (1977 (1931)) *A Grammar of the English Language. Volume II: Syntax*, Verbatim, Essex, Connecticut.
Curme, G. O. (1977 (1935)) *A Grammar of the English Language. Volume I: Parts of Speech*, Verbatim, Essex, Connecticut.
den Dikken, M. (2006) *Relators and Linkers. The Syntax of Predication, Predicate Inversion, and Copulas*, The MIT Press, Cambridge, Mass.
den Dikken, M. (2021) "A relational approach to the syntax of topic and focus," paper presented at The Fourth International Workshop on Syntactic Cartography (IWSC2021), Beijing.
Embick, D. (2003) "Locality, Listedness and Morphological Identity," *Studia Linguistica*, 57, 143-169.
Hale, K. and S.J. Keyser (1993) "On Argument Structure and the Lexical Expression of Syntactic Relations," in K. Hale and S.J. Keyser (eds.) *The View from Building 20. Essays in Linguistics in Honor of Sylvain Bromberger*, The MIT Press, Cambridge, Mass., 53-109.
Hale, K. and S.J. Keyser (2002) *Prolegomenon to a Theory of Argument Structure*, The MIT Press, Cambridge, Mass.

¹⁶Massam (1999, 338) suggests, for sentences of this sort, the possibility of a silent operator:

(i) WHAT the thing is, is...

¹⁷As in the case of focus and clefts, one would then need to ask what would force *(un)fortunately (for them)* et al. to involve more complex structures than would seem at first glance necessary.

- Harves, S. and R.S. Kayne (2012) "Having *Need* and Needing *Have*" *Linguistic Inquiry*, 43, 120-132.
- Isačenko, A. V. (1974) "On *have* and *be* languages: a typological sketch", in M. Flier (ed.) *Slavic Forum: Essays in Linguistics and Literature*, Mouton, The Hague, 43-77.
- Jespersen, O. (1970/1914) *A Modern English Grammar on Historical Principles. Part II: Syntax*, Vol. 1, George Allen and Unwin, London, and Ejnar Munksgaard, Copenhagen.
- Johns, A. (1992) "Deriving Ergativity," *Linguistic Inquiry*, 23, 57-87.
- Kayne, R.S. (1994) *The Antisymmetry of Syntax*, The MIT Press, Cambridge, Mass.
- Kayne, R.S. (2005a) "On the Syntax of Quantity in English", in Kayne (2005b) (also in J. Bayer, T. Bhattacharya and M. T. Hany Babu (eds.), *Linguistic Theory and South-Asian Languages. Essays in Honour of K.A. Jayaseelan*, John Benjamins, Amsterdam.)
- Kayne, R.S. (2005b) *Movement and Silence*, Oxford University Press, New York.
- Kayne, R.S. (2007) "Some English (and Romance) auxiliaries," paper presented at XVII Colloquium on Generative Grammar, Girona.
- Kayne, R.S. (2009) "A Note on Auxiliary Alternations and Silent Causation", in L. Baronian and F. Martineau (eds.) *Le français d'un continent à l'autre. Mélanges offerts à Yves Charles Morin*, Presses de l'Université Laval, Québec, 211-235 (reprinted in Kayne 2010).
- Kayne, R.S. (2010) *Comparisons and Contrasts*, Oxford University Press, New York.
- Kayne, R.S. (2016) "The Silence of Heads", *Studies in Chinese Linguistics*, 37, 1-37 (reprinted in Kayne (2019)).
- Kayne, R.S. (2019) *Questions of Syntax*, Oxford University Press, New York.
- Massam, D. (1999) "*Thing* is constructions: the thing is, is what's the right analysis?," *English Language and Linguistics*, 3, 335-352.
- Nilsen, Ø. (2003) *Eliminating Positions: The Syntax and Semantics of Sentence Modification*, Doctoral dissertation, University of Utrecht.
- Ofori, S.A. (2011) "On the Basic Focus Marker, and the Basic Focus Sentence, in Akan (Twi)", *Nordic Journal of African Studies*, 20, 241-262.
- Ott, D. (2014) "An Ellipsis Approach to Contrastive Left-Dislocation", *Linguistic Inquiry*, 45, 269-303.
- Pollock, J.-Y. (2021) "On French *Est-ce que* Yes/No Questions and Related Constructions," ms., Université Paris Est.
- Rizzi, L. (1997) "The fine structure of the left periphery," in L. Haegeman (ed.) *Elements of Grammar. Handbook of Generative Syntax*, Kluwer, Dordrecht, 281-337.
- Titov, E. (2019) "Morphosyntactic encoding of information structure in Akan," *Glossa: a journal of general linguistics*, 4(1):27, 1-36.
- Zaenen, A. (1993) "Unaccusativity in Dutch: Integrating Syntax and Lexical Semantics," in J. Pustejovsky (ed.) *Semantics and the Lexicon*, Springer, Dordrecht, 129-161.