A Note on Auxiliary Alternations and Silent Causation*

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1. Introduction.

As is well-known, French and Italian both have an alternation between *have* and *be* in their auxiliary + past participle construction. In the details, French and Italian are identical in certain respects. With ordinary transitives, both languages invariably have auxiliary *have*:[1]

   (1) Marie a lu ce livre. (Fr: 'M has read this book')
   (2) Maria ha letto questo libro. (It: same)

In the presence of a reflexive clitic, on the other hand, both languages invariably have auxiliary *be*, even when a lexical direct object is present:

   (3) Marie s'est acheté un livre. (Fr: 'M refl. is bought a book')
   (4) Maria si è comprata un libro. (It: same)

The two languages sometimes differ, though, when it comes to intransitives:

   (5) Jean a vieilli. (Fr: 'J has become-older')
   (6) Gianni è invecchiato. (It: 'J is become-older')

There are other intransitives whose auxiliary is the same in the two languages:

   (7) Jean est parti. (Fr: 'J is left')
   (8) Gianni è partito. (It: same)

Here both have auxiliary *be*. In the following, both have auxiliary *have*:

   (9) Jean a dormi. (Fr: 'J has slept')
   (10) Gianni ha dormito. (It: same)

Against the background of the fact that French and Italian behave identically in a number of respects as far as auxiliary selection in concerned, the question is why they do not always behave identically. Why do they differ precisely in (5) vs. (6)? More specifically still, why, with *vieillir/invecchiare* ('to-age/become old(er)'), is it French that has *have* and Italian that has *be*, rather than the reverse?

This last question has, as far as I know, not been addressed in the (extensive) literature on auxiliary selection for these languages. In this paper, I will suggest (the beginning of) an answer.

2. The class of verbs in question.

One question that has been addressed in the literature is that of determining which intransitive verbs have the differential behavior of *vieillir/invecchiare* seen in (5) vs. (6). Some others that do are as follows (cf. Legendre (2007, 149ff)), with the French verb given preceding its close Italian counterpart:

   (11)a. grandir/crescere ('to grow')

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[1]   This holds for most of Romance. Benincà (1989, 583) notes an exception in Friulian that might be due to the presence of a silent reflexive clitic, which might in turn carry over to the Eastern Abruzzese facts discussed by d'Alessandro and Roberts (2007).

b. exploser/scoppiare ('to explode')
c. augmenter/aumentare ('to increase')
d. diminuer/diminuire ('to diminish')
e. couler/affondare ('to sink')
f. glisser/scivolare ('to slip')
g. guérir/guarire ('to get-cured')
h. empirer/peggiorare ('to get-worse')
i. brûler/bruciare ('to burn')
j. geler/ghiacciare ('to freeze')
k. pâlir/impallidire ('to get-pale')

All of these intransitive French-Italian pairs act like (5) vs. (6), in that French will have auxiliary *have* and Italian auxiliary *be*. Some of these pairs have transitive counterparts, in which case we have a double contrast, as illustrated here with (c):

(12) Les prix ont augmenté. (Fr: 'the prices have increased')
(13) I prezzi sono aumentati. (It: 'the prices are increased')
(14) Le gouvernement a augmenté les prix. (Fr: 'the government has increased the prices')
(15) Il governo ha aumentato i prezzi. (It: same)

The Italian intransitive example (13) has *be*, contrasting both with its French counterpart (12) and with the transitive examples in both languages, which have *have*, just as in (1) and (2).

3. Beyond auxiliary selection.

Many discussions of auxiliary selection of the French/Italian sort have tended to limit themselves to auxiliary selection. But an understanding of why the two languages differ with this class of intransitive verbs and why they differ in exactly the way they do (again, why is it French that has *have* and Italian that has *be* in these pairs, rather than the other way around?) arguably requires moving beyond auxiliary selection to bring in other aspects of French and Italian syntax, in particular causatives, past participle agreement and passives.

Past participle agreement is relevant insofar as the auxiliary contrast between (5) and (6) is paralleled by the fact that past participle agreement is obligatory in Italian (6):

(16) Maria è invecchiata/*invecchiato.

as seen by the need for the feminine form *invecchiata* ending in *-a*, whereas past participle agreement is not present in French (5):

(17) Marie a vieilli/*vieillie.

where the form in *-e* would be the feminine one.

The relevance of causatives and passives has to do with the fact that although French causatives are by and large similar to Italian causatives, and French passives to Italian passives, they are not entirely the same. The important difference here has to do specifically with passives of causatives, which Italian allows in a way that French does not, as follows.[2]

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[2] Cf. Kayne (1985), Burzio (1986, 254) and Guasti (1993).

Examples of French and Italian causatives containing an embedded intransitive infinitive are:

(18) Les professeurs ont fait travailler les étudiants. (Fr: 'the professors have made work the students')

(19) I professori hanno fatto lavorare gli studenti. (It: same)

The two languages share the property that the underlying subject of the infinitive must end up following it:

(20) *Les professeurs ont fait les étudiants travailler.

(21) *I professori hanno fatto gli studenti lavorare.

Yet they differ in that Italian allows passivization of such causatives:

(22) Gli studenti sono stati fatti lavorare (dai professori). (It: 'the students are been made work (by the professors)')

whereas French does not:

(23) *Les étudiants ont été faits travailler (par les professeurs). (Fr: same)

If the infinitive embedded under the causative matrix verb is transitive, then in both languages the subject of the embedded transitive must be 'dativized' (and so must be preceded by the preposition à/a).[3] A French example is:

(24) Marie a fait manger une pomme à l'enfant. (Fr: 'M has made eat an apple to the child')

The Italian counterpart is essentially the same:

(25) Maria ha fatto mangiare una mela al bambino. (It: same)

Again, Italian allows passivization, here of the underlying embedded object:

(26) La mela è stata fatta mangiare al bambino (da Maria). ('It: 'the apple is been made eat to-the child (by M)')

but French does not:

(27) *La pomme a été faite manger à l'enfant (par Marie). (Fr: same)

4. A proposal.

A core proposal of this paper is that the French-Italian difference concerning passivization of causatives seen in (23)/(27) vs. (22)/(26) is in fact related to the difference in auxiliary selection that holds for the pairs of verbs in (11), in the following way (to be revised shortly):[4]

(28) A Romance language allows auxiliary *be* with the 'anticausative' verbs of (11) only if it allows passivization of causatives as in (22)/(26).[5]

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[3] Both languages also allow having the embedded subject appear in the form of an agent phrase - cf. Kayne (1975, sect. 3.5), Burzio (1986, 247) - in a way that is not important to the present discussion.

[4] The term 'anticausative', taken over from some of the literature, is an informal one. Aspects of an analysis will be presented below.

[5] Passivization of causatives here is to be distinguished from the middle contruction applied to causatives, which is possible in French to a greater extent - cf. Kayne (1975, sect. 5.9).

The generalization in (28) is not to be interpreted as a bidirectional.

This generalization needs to be refined, however, to take into account another fact concerning causatives (and past participle agreement). In French, causatives are odd insofar as a preceding direct object clitic does not trigger past participle agreement on the causative past participle, even for those speakers who otherwise have such agreement in non-causatives, i.e. there is a contrast between:

   (29) Jean l'a repeinte. ('J it has repainted(fem.)')

in which past participle agreement in standard French is possible (and for some speakers obligatory), and the following:

   (30) Jean l'a fait repeindre. ('J it has made repaint' = 'J has had it repainted')
   (31) *Jean l'a faite repeindre. ('J it has made(fem.) repaint')

where the agreeing example (31) is not possible, in contrast to (29).

   There is a similarity between (31) and (23)/(27), to the effect that, in French, past participle agreement in the causative + infinitive construction is not possible, whether in actives like (31) or in passives like (23) or (27). As seen in the passive examples (22)/(26), Italian is different. It allows (and requires) past participle agreement there (the causative forms *fatti* and *fatta* are agreeing forms - masculine plural and feminine singular, respectively). As expected, then, Italian also allows (and requires) past participle agreement in its counterparts to (30)/(31):

   (32) (Questa tavola) Gianni l'ha fatta/*fatto ridipingere. ('this table G it has made(fem.) repaint')

When the object clitic *l'* is feminine (in agreement with its antecedent *questa tavola*, here), then the causative verb past participle *fatta* must agree, in Italian.

   To integrate these facts concerning past participle agreement in non-passives such as (29)-(32), the generalization in (28) should be revised to:[6]

   (33) A Romance language allows auxiliary *be* with the anticausative verbs of (11) only if it allows past participle agreement in causatives.

5. More on past participle agreement.

   That past participle agreement is of importance here is further supported by the French of speakers like Bouvier (2000), for whom passives of causatives are actually possible, but only in those cases in which the derived subject is masculine singular. Bouvier gives the following contrasting pair:

   (34) *Une jupe a été fait(e) faire. ('a skirt(fem.) has been made made')
   (35) Un pantalon a été fait faire. ('a pair-of-pants(masc.)...')

and suggests that the latter is possible by virtue of containing the default past participle form *fait*, which amounts to saying that for him there is no past participle agreement in

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[6] I have maintained this revision as a unidirectional statement, rather than a bidirectional one, thinking of the fact that (31) is attested in (dialects of) French or Occitan (cf. Tuaillon (1988), Séguy (1978, 54), Grevisse (1993, sect. 915)) in a way that I suspect is wider than the distribution of auxiliary *be* with anticausatives.

(35).[7]

There is a partial similarity between Bouvier's judgments and the fact that Ruwet (1972, 114), in giving (36) as an example of French not allowing passivization of causatives:

(36) *Les pommes de terre ont été fait manger. ('the potatoes have been made eat') uses the non-agreeing form *fait*, rather than the agreeing form *faites*.

(37) *Les pommes de terre ont été faites manger. ('the potatoes have been made eat')

presumably indicating that for Ruwet (37), with agreement, would have been even worse than (36).

6. Impersonals, leading to a further revised proposal.

That auxiliary selection with the verbs of (11) is linked to past participle agreement in causatives, i.e. that there is a cluster of related properties in the familiar sense of comparative syntax, is supported by some additional data from French. For at least a number of French speakers, impersonal passives of causatives are acceptable where ordinary passives of causatives are not (cf. Bouvier (2000)).

By impersonal passive, I have in mind French sentences like:

(38) Il a été arrêté plusieurs criminels. ('it has been arrested several criminals')

in which the underlying object does not end up in subject position, but ends up rather in a postverbal position, with the ordinary subject position being filled by expletive *il*. A corresponding impersonal passive based on a causative is:

(39) Il a été fait distribuer trop de poupées cette année. ('it has been made distribute too-many of dolls this year')

The corresponding ordinary (non-impersonal) passive would be:

(40) *Trop de poupées ont été faites distribuer cette année.

in which the underlying embedded object *trop de poupées* has moved to matrix subject position.

Setting aside the question why exactly the impersonal passive (39) should be so much better with causatives than the ordinary passive (40) (against the background of the fact that French readily allows ordinary passives in simpler sentences), we can see a link to the auxiliary selection question, as follows.

The French intransitive verbs in (11) take auxiliary *have*, as discussed, and normally do not allow auxiliary *be* at all, for example in the following (non-passive) sentences:

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[7] Alternatively, (35) might have the past participle agreeing with a silent expletive that has the property that its 'associate' must be masculine singular. (If so, *un pantalon* there might have been raised in a focalization-like manner.)

Indirectly relevant here is the fact that Isabelle de Crousaz (p.c.) sometimes allows non-agreement with passive past participles, while requiring agreement with adjectives. This recalls Christensen and Taraldsen's (1989, note 1) observation that Oslo Norwegian and Danish both have adjective agreement, but no past participle agreement with unaccusatives even when the auxiliary is 'be'. Why Germanic has less agreement of these sorts than Romance remains to be elucidated.

(41)a. Enormément de neige a fondu/*est fondue le mois dernier. ('enormously (much) of snow has melted/*is melted last month')

　　　b. Beaucoup de bâteaux ont coulé/*sont coulés le mois dernier. ('a-great-deal of boats have sunk/*are sunk last month')

　　　c. Peu de patients ont guéri/*sont guéris en 1996. ('few of patients have gotten-cured/*are gotten-cured in 1996')

　　　d. Peu de maisons ont brûlé/*sont brûlées dans l'incendie de la semaine dernière. ('few of houses have burned/*are burned in last week's fire')

Yet for Jean-Yves Pollock (p.c.), the corresponding impersonal sentences with the same verbs of (11), but with auxiliary *be* (with subject expletive *il* and with the DP argument postverbal), are often improved:[8]

(42)a. (?)Il est fondu énormément de neige le mois dernier.

　　　b. (?) Il est coulé beaucoup de bâteaux le mois dernier.

　　　c. (?)Il est guéri peu de patients en 1996.

　　　d. ?? Il est brulé peu de maisons dans l'incendie de la semaine dernière.

　　That the improved and acceptable status of the impersonal passive in French causatives seen in (39) vs. (40) finds a (marginal) parallel in (42) vs. (41) makes it clear, I think, that the impossibility of auxiliary *be* in (41) is not simply a fact about auxiliary selection per se, but is rather connected in some way to the impossibility of (ordinary) passives of causatives in French, of which (40) is one example. More specifically, it suggests that the generalization given in (33) should be further revised to:

(43) A Romance language allows auxiliary *be* with the anticausative verbs of (11) only if it allows past participle agreement in corresponding causatives.

　　This revision, adding the word 'corresponding', is to be understood as having two subcases:

(44) A Romance language allows auxiliary *be* with the anticausative verbs of (11) in non-impersonal sentences like (16) and (13) only if it allows past participle agreement in non-impersonal causatives like (32) and (26)/(22).[9]

(45) A Romance language allows auxiliary *be* with the anticausative verbs of (11) in impersonal sentences like (42) only if it allows past participle agreement (with subject expletive *il*) in impersonal causatives like (39).

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[8] Unlike English:

  i) ?There has/*is melted a great deal of snow this week.

presumably indicating that (42) depends on French having auxiliary 'be' in (7) and/or (3).

　　Not surprisingly, (42) does not carry over to unergatives or transitives.

　　The fact that (42) is marginal as compared with (39) is very likely related to the unidirectional character of (28).

[9]　The unidirectional formulation of (44) implies that past participle agreement with an object clitic in causatives is more widespread than auxiliary *be* with the anticausatives of (11) (which seems to be true). This recalls the claim made in Kayne (1989, sect. 3.3) to the effect that clitic climbing (in non-causative restructuring sentences) is more widespread than having the auxiliary determined by the embedded infinitive; cf. Cinque (2006, 33, 59).

The formulation in (45) is inspired by Christenen and Taraldsen (1989, 71), who provide evidence that passive past participles in Swedish can agree with an expletive subject.[10]   Transposing this conclusion to French amounts to saying that in (42), as well as (39) and (38), the past participle agrees with subject *il*.

7. The beginning of an analysis.
  Why should (43)-(45) hold? Why should there be a close link between the choice of auxiliary in anticausative sentences like:
  (46) La nave è affondata ieri. (It: 'the ship is sunk yesterday')
vs. its French counterpart:
  (47) Le bâteau a coulé hier. (Fr: 'the ship has sunk yesterday')
on the one hand, and properties of full causative sentences with an embedded infinitive, on the other? Examples of the latter that contain the verbs of (46) and (47) are:
  (48) Il temporale ha fatto affondare la nave. (It. 'the storm has made sink the ship')
  (49) L'orage a fait couler le bâteau. (Fr: same)
  The answer is arguably contained in the second half of the term 'anticausative' often used for (46) and (47) (though obscured by the prefix 'anti-'). While (48) and (49) are clearly biclausal,[11] (46) and (47) look monoclausal. I will, however, in agreement with Alexiadou et al. (2006),[12] take the position that that is misleading. Put another way, part of the answer to why (43)-(45) should hold is:[13]
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[10]   Christensen and Taraldsen's (1989, 75) proposal for a silent agent in impersonal passives might (if that agent is indefinite) provide, from Kayne's (to appear) perspective, a source for the *der*-type ('there'-type) expletive that occurs in such passives in some Germanic.
[11]   For recent discussion, cf. Kayne (2004); also Kayne (1975, chap. 6) and Cinque (2006, 79) on the iterability of causatives.
[12]   In addition to work going at least as far back as Chomsky's (1965, 189) suggestion concerning *frighten*; see also Pesetsky (1995, 67ff.).
[13]   (50) is not incompatible with the well-known pair (cf. Alexiadou et al. (2006, 188) and references cited there):
  (i) The boat was sunk in order to collect the insurance.
  (ii) *The boat sank in order to collect the insurance.
which shows only that anticausatives (contrary to passives) lack a silent agent. (Other arguments against a silent agent in anticausatives are given by Ruwet (1972, 116ff.). On why anticausatives could not have a silent agent, cf. Collins (2005).)
  The absence of a silent agent in (ii) does not imply the absence of a silent non-agentive causer, of the sort visible in (48) and (49) and in:
  (iii) The storm sank the boat.
In other words, anticausative sentences like (46) and (47) may contain a silent non-agentive causer along with a silent causative verb.
  In some cases, non-agentive causers in English are found following *from* (cf. Alexiadou et al. (2006, 194) and references cited there):
  iv) The ice melted from the heat of the sun.
in which case they cannot be controllers:

(50) Anticausative sentences like (46) and (47) are biclausal causatives.
'Clausal' here must include 'small clauses'.

   In addition, we can adopt Marantz's (2005) idea that causation can (and perhaps must) be expressed by an activity *v*.[14] This fits well with French and Italian, whose causative verbs, as in (48) and (49), are in fact verbs that otherwise correspond to English *do*, as in:

   (51) Che hai fatto? (It: 'what you-have done' = 'what have you done?')
   (52) Qu'as-tu fait? (Fr: 'what have you done' = same)

   Putting all these strands together leads to the conclusion that (46) and (47) contain a silent counterpart of the causative/activity verb seen overtly in (48) and (49). Using the capitalized form of the French root FAI-[15] ('do') to represent this silent verb (in both languages), we have, leading to (46) and (47), at least the following:[16]

   iii) *The ice melted from the heat of the sun with extreme care/on purpose/before melting the copper.
and cannot parallel passive *by*-phrases:
   iv) *The ice had been melted from the heat of the sun.
To some extent, such *from*-phrases can cooccur with causative verbs:
   vi) His poor health allowed/?caused him to die from the pneumonia that he had caught.
   vii) The lack of sunscreen (is what) allowed/(?)caused his skin to shrivel up from the heat of the sun. See also Pesetsky (1995).
[14] The term 'activity' must be understood broadly, to allow for (French) causatives like:
   i) La peur de la police a fait se dénoncer le cambrioleur. (Fr: 'the fear of the police has made/done refl. denounce the burglar' = 'fear of the police made the burglar turn himself in')
as well as English cases in which *do* does not convey a standard activity:
   ii) Fear does funny things to people.
   On a possible link between the *do* of (51)/(52) (and by extension the other instances of *do* under discussion here) and that of *do*-support, see Haddican (to appear). (Cf. also, perhaps, the *done* of AAVE.)
   English *do* cannot occur in causatives in the way Italian *fare* and French *faire* can:
   iii) The high winds made/*did the boat go down quickly.
though the following seems close to causatives:
   iv) They did him out of his inheritance.
[15] In addition to *fai-* (plus participial *-t* in *fait*), this root sometimes appears as just *f-*, sometimes as *fais-*. How best to understand this alternation is almost certainly not germane to the text discussion. Similarly for Italian *fa-* and *fac-*, whose final consonant is related to the gemination of *-t-* seen in (48) and (51).
[16] That (46) and (47) contain a small clause (cf. Williams (1975) and Stowell (1991)) embedded under the causative may provide a way of understanding the interpretive difference between:
   i) The storm made the boat sink.
   ii) The storm sank the boat.
Fodor (1970) and Ruwet (1972, chap. 4), among others, argued against having a silent (deleted) causative verb in (ii) in part on the grounds that (i) is more compatible with

(53) ...FAI-...affondata... (It.)
(54) ...FAI-... coulé... (Fr.)

8. An aside on past participles.
    French and Italian differ in their past participle morphology. The Italian form *affondata* in (46) shows a participial *-t-* that the French form *coulé* does not show.[17] This *-t-* appears orthographically in French in the *fait* (= *fai+t*) of (49) and (52), although it is not pronounced there. It is pronounced when such participles are in a context that allows feminine past participle agreement, e.g. with a preceding direct object clitic, as in:
   (55) Je l'ai refai*te*. ('I it have redone')
   (56) Il l'a repein*te*. ('he it has repainted')
   (57) Tu l'as di*te* belle. ('you her have said beautiful')
   (58) Tu l'as cui*te*. ('you it have cooked')
and similarly in passives, e.g.:
   (59) La maison a été refai*te*/repein*te*. ('the house has been redone/repainted')
and in actives with auxiliary 'be':
   (60) Elle est mor*te* hier. ('she is died yesterday')
Past participles in which this *-t-* can be pronounced are few in number; in particular, the largest (first conjugation) class of French verbs is like *coulé* in (54), in which the participial *t* is not even orthographically present and is not pronounced even in contexts like (55)-(60). Nevertheless, it seems plausible to take all French verbs to cooccur with a past participial morpheme in the relevant cases, i.e. to take *coulé* to be 'coulé + T',

indirect causation than (ii) is.
    It may be that indirect causation requires an embedded clause that is 'bigger' than (i.e. contains a superset of the functional heads of) the small clause in (ii). Cf. the difference in interpretation between:
   iii) They got John to be angry.
   iv) They got John angry.
with the latter small clause example feeling more 'direct' than the former.
    The incompatibility of an embedded small clause with indirect causation may also underlie the contrast discussed by Chomsky (1970, 221):
   v) They're growing tomatoes/*their children.
Cf. also the discussion of 'internal causation' in Alexiadou et al (2006).
[17] Strictly speaking *affonda-* also contains the theme vowel *-a* distinct from the stem/root *affond-*. For recent discussion of such verbal theme vowels (which do not seem central to the text discussion), see Massuet (2000). In addition, *affond-* itself is almost certainly to be analysed as *a-+ffond-*, where *a-* is prepositional - see Di Sciullo (1997, 66), who notes that such prefixal prepositions are more common in Italian than in French, in a certain class of cases. French does have some anticausatives of that form, e.g. *embellir* ('em+bell+i+r' = 'in+beautiful+theme vowel+infin.' = 'to become beautiful') and similarly for *enlaidir*, with *laid* = 'ugly'; also *empirer* ('em+pir+e+r' = 'in+worse+theme vowel+infin.' = 'to worsen'), whose Italian counterpart *peggiorare* lacks the prefix, at least overtly, with no effect on the choice of auxiliary.

where 'T' is a silent counterpart of -*t*-.[18] (In Italian, this participial -*t*- is always pronounced when it appears orthographically (the general case), as in (48) and (51)).)

9. Past participles and *v*.
    The parallelism between the causative/activity verbs of (48) and (49), on the one hand, and little *v*, on the other, must be understood with sufficient flexibility as to allow for the fact that the verbs embedded under *fatto/fait* in (48) and (49) are infinitival in form, i.e. show an infinitival suffix that was not included in (53)/(54) for the simple reason that there is no infinitival suffix to be seen in (46) or (47). The lexical verb in (46) and (47) is rather in past participial form, as given in (53)/(54).
    A key question now is how the silent causative/activity FAI- of (53)/(54) (and (46) and (47)) stands with respect to infinitival and past participial morphemes. There is no reason to think that this FAI- should be accompanied by an infinitival suffix,[19] if only because the auxiliaries (*è* and *a*) seen in (46) and (47) are never directly followed by overt infinitives, in French and Italian. More plausible would be to postulate the presence of a past participial morpheme following FAI-. This would lead us to revise (53) to the following, as a partial analysis of the Italian example (46):
    (61) la nave è FATTA affondata ieri ('the boat is DONE sunk yesterday' = 'the boat (has) sunk yesterday')
    Like all proposals involving little *v*, this one leads to the question why *v* is not pronounced more often, or even systematically. With respect to (61) itself, this question becomes that of understanding why the following is not possible with overt *fatta*:[20]
    (62) *La nave è fatta affondata ieri.
There might be a link to the idea of Kayne (2006) that silent elements and their overt counterparts never occupy the same position (so that more movements must take place than meet the eye). And/or there might be a link between (62) and the well-known fact that English *do*-support is not found in the absence of special factors such as negation, stress, etc.:
    (63) Why the boat sank/*did sink is unclear.
Similarly for the non-finite *do* of British English:[21]
    (64) The boat might have done. vs. *The boat might have done sink.
I leave this question open.
    A different question involves understanding why the lexical verb in (61) could not be in infinitival form:
    (65) *La nave è affondare ieri. ('the boat is sink(infin.) yesterday')
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[18]   Partially similar is the case of French infinitival -*r*, which is also not pronounced with first conjugation verbs, except in 'liaison' contexts, and when part of the future/conditional.
[19]   Italian -*re* may well be two morphemes, as in Cardinaletti and Shlonsky (2004).
[20]   Cf. perhaps Baker (1993). One will also need to understand the restrictions on the distribution of silent FAI-.
[21]   Cf. Chalcraft (2006), in the context of a striking argument for taking RNR to be an instance of ellipsis.

It looks as if the two past participles of (61) (more exactly, the two past participial *-t-* morphemes) are in an agreement (or reduplication) relation, in a way that recalls the Faroese phenomenon of 'attracted supines' - Lockwood (1977 p.141) - in which the supine form (closely related to past participles - cf. Christensen and Taraldsen (1989, 71) on non-agreeing past participles) can be preceded by the infinitival marker *at.*[22] This in turn will lead to asking whether in (61) it is the first or second participial *-t-* that is interpretable, or whether it might not be the case that both are interpretable.[23]

10.   Back to auxiliaries and past participle agreement.
      More central to the auxiliary question than the interpretability one is the past participle agreement that I have indicated in (61) as holding of both past participles, including the silent one FATTA. In Italian passives, double past participle agreement is well-known:
   (66) La nave è stata affondata. ('the boat is been(fem.) sunk(fem.)' = 'the boat has been sunk')
The proposal conveyed by (61) is that such double past participle agreement is also found in non-passives.
      In addition to the reasons given earlier, past participle agreement is important to the auxiliary alternation question insofar as the analysis of auxiliary alternations in Kayne (1993) turned out not to be in the spirit of later proposals concerning prepositions made in Kayne (1999; 2004) (where some prepositions are merged outside VP). In part for that reason, I would like to sidestep certain aspects of the general question of auxiliaries by approaching it indirectly through the following generalization:[24]
   (67) In a Romance language, past participle agreement is obligatory in nonreflexive[25] anticausative sentences like (46)/(61) whenever the auxiliary is 'be'.
      In other words, the following contrast is typical:
   (68) La nave è affondata/*affondato ieri. ('the ship(fem.) is sunk(fem.)/*sunk(no agr.) yesteday')
In French, the auxiliary would be 'have', with no past participle agreement:[26]
   (69) La barque a coulé/*coulée. ('the boat(fem.) has sunk(no agr.)/*sunk(fem.)')
A direct French counterpart of the acceptable half of (68), with auxiliary 'be' and with past participle agreement, is impossible:

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[22]   Cf. Anward (1988) and Wiklund (2005, 6).
[23]   For relevant discussion, see Pancheva and von Stechow (2004) and references cited there.
[24]   Stated as unidirectional because some Romance languages (unlike French) have past participle agreement with auxiliary 'have' in (some) cases that resemble (***) - cf. Kayne (1993, sect. 2.2).
      (67) does not hold of Germanic. Whether certain Germanic languages could be analyzed as having unpronounced past participle agreement is unclear.
[25]   In reflexive anticausatives (which this paper is setting aside), past participle agreement is not obligatory in (some) French - cf. Kayne (1975, sect. 5.8).
[26]   In standard French, this is an orthographic fact with no phonetic counterpart; the conjecture is that the orthography in this case accurately reflects the syntax.

(70) *La barque est coulée hier.
This would have had to have, transposing from (61), an analysis like:
   (71) *la barque est FAITE coulée hier ('the boat is DONE sunk yesterday' = 'the boat (has) sunk yesterday')

   Assume now that in French (70)/(71) past participle agreement is blocked for some reason independent of the presence of auxiliary 'be'.[27] It would then follow that anticausatives like (70)/(71) could not have auxiliary 'be' in French, since, if they did, (67) would compel them to have past participle agreement, which by assumption is not possible. In other words, we can take the impossibility of auxiliary 'be' with French anticausatives to be a side effect of the impossibility of past participle agreement in French anticausatives.

   That past participle agreement in (70)/(71) is indeed blocked independently of the presence of auxiliary 'be' is made highly plausible by the similarly between (71) and the fact that French does not allow such agreement with overt causatives, as we saw in (30)/(31), repeated here:
   (72) Jean l'a fait repeindre. ('J it has made/done repaint' = 'J has had it repainted')
   (73) *Jean l'a faite repeindre. ('J it has made/done(fem.) repaint')
in which there is no 'be' at all.

   Put another way, the absence of past participle agreement in French in (69)-(73) is a single fact about past participle agreement that interacts with but is at bottom independent of the question of choice of auxiliary.   Neither overt agreeing *faite* in (73) nor silent agreeing FAITE in (71) is admissible in French, in either type of causative. Combined with (67), this property of causative *faite*/FAITE prevents French from having auxiliary 'be' with anticausatives.

   Conversely, the presence of past participle agreement in Italian in (68)/(61) and in the Italian counterpart of (73), namely:
   (74) Gianni l'ha fatta ridipingere.
is a single fact about past participle agreement that sharply distinguishes Italian from French. Combined with (67), this property of Italian, i.e. the admissibility of agreeing causative *fatta*/FATTA, produces a difference in auxiliary choice as compared with French, in that it allows Italian, unlike French, to have anticausatives with auxiliary 'be'.[28]

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[27] Legendre (2007, 176) gives *La neige fondue, toutes les stations ont fermé* ('the snow melted, all the resorts have closed'), but that may well be an example of a reduced (adjectival) passive.
[28] That a Romance language can be allowed to have 'be' with anticausatives without being required to do so is shown by Paduan, which has, as a first approximation, both 'be' and 'have' (with the expected difference in past participle agreement - v. Benincà (1984)). For relevant recent discussion, see Cennamo and Sorace (2007).
   Burzio (1986, 123) gives a Piedmontese anticausative example with auxiliary 'be' that is notable for also containing, post-participially, an 'expletive' object clitic *ye* ('there') that French and Italian lack in such cases. In apparent indirect contrast to Piedmontese, French prohibits its expletive *y* from occurring with 'be' in:
   i) *Il y est un livre sur la table. ('it there is a book on the table' = 'there's a book on the table')

In summary, the present proposal reduces the French-Italian difference concerning auxiliaries in anticausatives to the independent French-Italian difference concerning past participle agreement in full causatives (as illustrated in part by (73) vs. (74)).

11. Other Romance languages.

This cross-Romance linkage between auxiliaries in anticausatives and past participle agreement was expressed earlier in (43), repeated here:

(75) A Romance language allows auxiliary *be* with the anticausative verbs of (11) only if it allows past participle agreement in corresponding causatives.

The expectation is therefore that if we find a Romance language that allows auxiliary 'be' in anticausatives, it will necessarily allow past participle agreement in full causatives. I do not know of any counterexample.

A case of the converse sort that is compatible with (75) in a striking way is Sardinian. Sardinian is more like Italian than like French in certain very visible respects, in that it is a null subject language, it has clitic climbing with non-causative infinitives[29], and its adverbs position themselves with respect to non-finite verbs in some Italian-like ways.[30] Yet according to Jones (1993, 107, 272, 276) Sardinian seems to be more like French both in having auxiliary 'have' with anticausatives[31] and also in disallowing past participle agreement in full causatives.

12. Past participle agreement in full causatives (and anticausatives).

Although Sardinian is like Italian in having robust clitic climbing, it differs from Italian in that Sardinian, in modal constructions, requires the clitic to climb (Jones (1993, 142)), whereas Italian generally allows it to fail to climb. Possibly, this is relevant to a question not yet addressed, namely why French and Italian differ with respect to past participle agreement itself in full causatives (and in anticausatives). For example, it might be that the 'optionality' of clitic climbing in Italian (absent, in different ways, in Sardinian and in French) reflects a stepwise clitic movement available to Italian but not to Sardinian or French. If such stepwise movement had a counterpart in Italian in the case of causatives, with DP-movement of the kind involved in past participle agreement, we might be able to say that past participle agreement in causatives requires stepwise movement of the DP (starting from a post-lexical-verb position) and

Possible is:
  ii) Il y a un livre sur la table.
with 'have' instead of 'be'. In a more literary French (i) becomes possible if *y* is removed.
[29] These two properties may be related - cf. Kayne (1989).
A plausible conjecture is that French has fewer available clitic combinations than other Romance languages as a result of its having less clitic climbing.
[30] Cf. Cinque (1999, 146) and Kayne (1991, sect. 1.1).
[31] Jones (1993, 111) notes that in some cases of anticausatives the addition of a possessive dative licenses 'be'; it remains to be understood how.

that that movement in unavailable in Sardinian and in French, in a way somehow related to the absence in those two languages of stepwise clitic climbing.[32]

If, as suggested earlier, the past participle agrees with expletive *il* in the impersonal passive of (39) and in the (marginal) impersonal anticausative of (42), then the stepwise movement in question must be more readily available to expletive *il* than to lexical DPs.[33]

13. Other unaccusatives.

Although French does not allow auxiliary 'be' with anticausatives (except to some extent in impersonals), it requires auxiliary 'be' with certain other unaccusatives, such as *mourir* ('die'), *sortir* ('go out'), *partir* ('leave'), *arriver* ('arrive'), *venir* ('come'), *intervenir* ('intervene'), *devenir* ('become'), *rester* ('remain').[34] Recalling the proposal for Italian anticausatives from (61), repeated here:

   (76) la nave è FATTA affondata ieri ('the boat is DONE sunk yesterday' = 'the boat (has) sunk yesterday')
and for its French counterpart:

   (77) le bâteau a FAIT coulé hier ('the boat has DONE sunk yesterday')
both containing a silent causative/activity verb FATTA/FAIT, the natural claim to make about those French unaccusatives that do take auxiliary 'be' would be that they are not associated with a silent FAIT.

Postulation of a silent causative verb in anticausative sentences amounts to claiming that anticausative sentences like:

   (78) The boat sunk.
are close to overt causatives like:

   (79) Something made the boat sink.
i.e. that anticausatives can be understood as containing a silent causer (whose position at various stages of the derivation I have left open). To say that French *partir* or English intransitive *leave*, for example, does not have this kind of analysis is to say that:

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[32]   There is a sense in which the proposed link between past participle agreement and auxiliary 'be' is supported by Spanish, which has no past participle agreement at all with object clitics, and also no auxiliary 'be' at all with unaccusatives (of any type). The status of passives of causatives in Spanish seems not to be clear - cf. Guasti (1993, 85).

Conversely, there would appear to be speakers of French for whom past participle agreement with object clitics is absent in the spoken language, but for whom *be* with (certain non-anticausative) unaccusatives is robust (similarly in part for the dialect described by Dupraz (1938, 289-294)).

[33]   On the derivation of (certain other instances of) expletive *il*, cf. Kayne (to appear).

[34]   With main verb *être* ('be'), however, French has auxiliary 'have', perhaps for reasons along the lines of Postma (1993). Whether Postma's proposal could be relevant to the fact that French also has 'have' with its counterparts of *seem* and (to a certain extent) *appear* and also *disappear* remains to be seen. On *seem* and *appear*, see Rooryck (1997).

(80) The student left.
is not equally close to:
   (81) Something made the student leave.
and similarly for French. It is as if the autonomy of *the student* in (80) precludes
attributing to (80) a derivation that would track that of (81). Since French *mourir* is like
partir in requiring auxiliary 'be', the same must, by this reasoning, even hold of:
   (82) The patient died.
   (83) Something made the patient die.
i.e. the language faculty must be treating the argument of *die* as autonomous to a
degree sufficient to preclude (82) from being attributed a derivation close to that of
(83).
    Of interest in this regard is the apparently synonymous French pair:
   (84) Le mur a noirci. ('the wall has blackened')
   (85) Le mur est devenu (plus) noir. ('the wall is become (more) black')
(84) is a typical anticausative and has auxiliary 'have', as earlier, with a representation
like (77):
   (86) le mur a FAIT noirci
in which the presence of causative FAIT ensures that (in French) the auxiliary will be
'have'. (85), on the other hand, contains the French counterpart of *become*, plus an
adjective (phrase) and has auxiliary 'be', which implies, from the present perspective,
that it does not contain causative FAIT, i.e. it is not:
   (87) *le mur est FAIT devenu noir
Transposing back to English, the conclusion is parallel to the one drawn for (82) vs.
(83), namely that the language faculty must be treating:
   (88) The wall became black(er).
as not being able to have a derivation close to that of:[35]
   (89) Something made the wall become black(er).
as opposed to the following, which is close to (89):
   (90) The wall blackened.
in the same way that (78) is close to (79).
    As for the reason for the difference between (86)/(90) and (87)/(88) with respect to
the presence vs. absence of a silent causative/activity verb, there might be a link to:[36]
   (91) *Something became the wall black.
vs.
   (92) Something blackened the wall.
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[35]   Despite the possibility of (i), with an overt causer of a certain sort following *from*:
   (i) The wall became black(er) from the coal dust.
[36] Cf. also:
   i) The sheets will whiten up.
vs.
   ii) *The sheets will become up white.
   iii) *The sheets will become white up.
(ii) is possible with *come* in place of *become*, recalling *deck* vs. *bedeck*, which supports
taking *become* to be *be-+come*; on this *be-*, v. Mulder (1992).

but I will leave the question open.

14. Conclusion.

    Italian anticausatives take auxiliary 'be' with past participles, while French anticausatives take auxiliary 'have'. This is not an isolated difference between the two languages that concerns only auxiliaries; it is related to other differences having to do with causatives, passives and past participle agreement. Expressing this relation (clustering of properties) requires attributing to anticausatives (but not to all unaccusatives) a derivation involving a silent causative/activity verb.

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