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Labeling (Romance) causatives

1 Introduction

Classical analyses of Romance causatives of the Italian/French type illustrated in examples like (2) and (3) below for Italian, proposed that an overt process of VP-preposing occurs in the derivation of these structures (in particular Kayne 1975; Rouveret and Vergnaud 1980; Zubizarreta 1985; Burzio 1986). Phrasing the proposal in current terms, this process can be identified with and reduced to an instance of a family of syntactic processes moving chunks of a verb phrase, often referred to as *smuggling*, following Collins' (2005) terminology. The main proposal of this article is that the crucial engine triggering this type of derivation of Romance causatives is the fundamental labeling requirement. The requirement is satisfied through a *smuggling*-type movement of a chunk of the verb phrase, probed by a criterial causative voice head. The remaining constituent is labeled DP. In a comparative perspective, the movement attracting property of the causative head is parametrized so that in English-type languages the attracted constituent is not a vP-chunk, but rather the DP-external argument of the lexical verb. This yields labeling of the remaining constituent as vP. The special yet well recognizable status of causatives in language after language, characteristically involves displacement of constituents of different kinds, a verbal constituent in Romance/Italian-type languages, a DP in English-type languages; this is consistent with the idea defended here that these are the only types of displacements possible, and in fact required given shared properties of the clausal functional structure containing the causative voice combined with the requirement of labeling of syntactic structures. Further differences such as e.g. the (im)possibility of passivization of the causative verb follow from the assumed criterial status of the causative voice in compliance with intervention locality within a syntactic architecture which is fundamentally homogeneous.

The presentation and the development of these ideas is organized as follows: In section 2 I will spell out the background analysis I will be assuming for Romance causatives of the Italian type, crucially involving *smuggling*. Section 3 introduces and develops the issue concerning the status of the process moving a chunk of the verb phrase and what its ultimate generator should be. The fundamental labeling requirement is identified as the generator of this movement, which is triggered by a causative voice, active in the clausal functional structure (3.1). This movement is parametrized yielding different types of causatives of the Romance/Italian type on the one side and of the English type on the other.
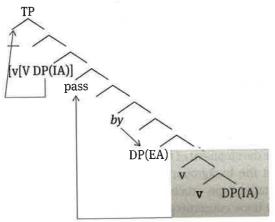
The criterial status of the causative head is then assumed (3.1.2) as the fundamental source of differences in the possibility of passivization in the two types of causatives. Some comparative considerations on French conclude the analysis (3.1.2.1). Section 4 addresses the comparison between the *smuggling* process of causatives with the one currently assumed for passive (4.1). Some relevant considerations inspired by recent results in acquisition are finally discussed (4.2). Section 5 concludes the article.

2 Causatives and movement of a chunk of the verb phrase. Background assumptions.

Processes moving a chunk of the verb phrase yield different types of structures. Among them a core case is represented by passive following Collins' (2005) influential approach in terms of *smuggling*. According to this approach, passive is derived along the lines in (1) (only main aspects of the derivation are indicated). Another core case may precisely be Romance causatives of the type in (2) and (3) as will be proposed here (Belletti and Rizzi 2012 for a first discussion).[1]

(1)   Main general steps of the analysis of passive with movement of a chunk of the verb phrase:

Movement of chunk of verb phrase/*smuggling*

1 I will limit the use of the term *smuggling* somewhat to avoid the look-ahead flavor that this term may produce. See section 4.1 for some discussion of this point.

According to the schema of the analysis in (1), a chunk of the verb phrase containing (at least) the verb(/past participle) and its internal argument is attracted by (a component of) the passive voice into its specifier (indicated as pass in [1]).[2] Lack of accusative is a property of the passive voice, hence in the passive structure the internal argument is then moved into the nominative subject position.

Consider now the *fare-a* and *fare-da* causatives of Italian, illustrated in (2) and (3).

(2)   *Maria   farà   [mangiare   il   gelato]   al   bambino*
      Maria   will make   eat   the   ice cream   to the   child
      'Maria will make the child eat the ice cream'

(3)   *Maria   farà   [mangiare   il   gelato]   dal   bambino*
      Maria   will make   eat   the   ice cream   by the   child
      'Maria will make the child eat the ice cream'

Let us assume that the core ingredients of the derivation of a *fare-a* causative like (2), in which the external argument of the embedded infinitival verb phrase is marked with the preposition *a (dative)*, can be schematized as in (4); we may furthermore assume that a similar derivation is at play for the derivation of *fare-da* type causatives as illustrated in (6) (details aside); in (6) the external argument of the embedded infinitival verb phrase is marked with preposition *da(by)*, the same preposition present in passive.[3] When the infinitival verb phrase has no direct object, i.e. its verb is intransitive/unergative, its external argument is marked with accusative case as illustrated in (10). Assignment of accusative can be assumed to first involve an Agree relation with the relevant functional head in the matrix clause containing the (semi-) functional verb *fare* (indicated as *Acc* in the structures below, for convenience), as is indicated in all the following derivations (see

2 The preposition *by* is responsible for Case marking of the DP/External Argument; in (1) only the Agree relation between the preposition and the DP is indicated. Presumably, DP/EA is attracted into the Spec of *by* which further moves into the higher (Case) head. This may be the mechanism always at work implementing Case marking into a clause structure in which prepositions are part of the functional spine, as in Kayne (2004), following a suggestion by Ur Shlonsky. More generally, Agree + movement into the Specifier of the relevant Case marking head may be considered the mechanism typically involved for assignment of structural Cases, including Accusative Case. To simplify the illustration of the proposed derivations, in the representations in the text only the Agree part of the process will be indicated.

3 On the various differences between the two types of causatives, see Kayne (1975), and, in particular, Guasti (1993). Here we will focus on what the two may have in common.
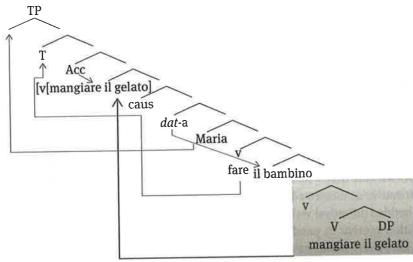
footnote 2). In all cases a chunk of the verb phrase is attracted into the Specifier of a causative voice, indicated as *caus*.

(4) Main derivational ingredients of *fare-a* type causatives:

Maria	*farà*	*[mangiare*	*il*	*gelato]*	*al*	*bambino*
Maria	will make	eat	the	ice cream	to the	child

'Maria will make the child eat the ice cream'

Movement of chunk of verb phrase/*smuggling*

Let us spell out in some more detail the main derivational steps assumed. In (4) the semi-functional verb *fare* is merged as the complement of a causative voice head, the head ultimately responsible for the causative meaning associated with *fare* in the causative constructions.[4] In the implementation in (4) the causative voice is incorporated by *fare*, on its way to the inflectional head(s) labeled T for convenience, as in current practice. The verb *fare* is considered here semi-functional (and not just functional) since it has, by hypothesis, an impoverished argument structure just containing an external argument, as the Initiator (Ramchand 2008) of the caused event, whose descriptive content is expressed in the lexical verb phrase. In (4) it is also hypothesized that a rich functional

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4 For similar assumptions on the causative voice and related structural analyses, see Folli and Harley (2007), Legate (2014), and Alexiadou, Anagnostopoulou, and Schäfer (2015).

structure dominates the semi-functional verb *fare*, with a small v-Case head responsible for the assignment of dative Case through Agree to the external argument of the infinitival verb phrase.

The causative voice head has the property of attracting the relevant chunk of the infinitival verb phrase into its specifier, in the same way as the passive voice illustrated in (1). This property and the induced process of movement of a chunk of the verb phrase is what passive and causatives have in common. In the causative construction, in contrast with passive, the moved chunk is overtly visible; it corresponds to the part in brackets of the example in (4) (*mangiare il gelato*). Differently from what happens in passive, in causatives the internal argument of the embedded infinitival verb phrase can remain in the position of direct object where it is accessible to assignment of accusative Case by entering an Agree relation with the relevant functional head in the clausal functional structure, labeled Acc in (4).[5] A crucial effect of the passive voice is that of blocking assignment of accusative Case. No such effect is induced by the presence of the causative voice.[6] Availability of accusative for the internal argument of the infinitival verb phrase is witnessed by the well-known possibility for this argument to be realized as an accusative clitic illustrated by examples like (5a); the ungrammaticality of (5b) is a clear indication that accusative is a property of the matrix clause since the clitic can only be cliticized on the matrix *fare*

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5 Possibly the object vacates the position of internal argument of V where it is merged reaching some higher position in the moved verbal chunk. We will not go into these subtler details of the implementation. What is important here is the assumption that some functional head external to the verb phrase is ultimately responsible for the assignment of structural accusative Case, as in the traditional AgrO hypothesis. The object may then be attracted to the specifier of this Case head. See also footnote 2 for discussion of this point.

The same analysis would work for cases in which the moved verbal constituent contains an unaccusative verb and its internal argument (no external argument is present in these cases), which is marked with accusative Case, as is visible in (ib) (similarly to [5a], containing a transitive verb):

(i)	a.	*Ho*	*fatto*	*partire*	*Gianni*	*per*	*Roma*
		(I) have	made	leave	Gianni	to	Rome
	b.	*L'ho*		*fatto*	*partire*	*per*	*Roma*
		(I) himcl have		made	leave	to	Rome

6 As far as Case is concerned, the different property should be due in part to the different status and to the different structural position of (the relevant heads of) the passive and causative voices respectively. The *pass* voice may in fact be in complementary distribution with the Acc head, whereas the *caus* voice should be lower. This is in essence the hypothesis adopted in the representations in the text. I will not attempt to offer a more detailed proposal in this respect here.

and cannot be (en-)cliticized on the infinitival verb, of which it is its internal argument:[7]

(5) a. *Il gelato, Maria lo farà mangiare al bambino*
the ice cream Maria it-CL will make eat to the child
'The ice cream Maria will make the child eat (it)'

b. **Il gelato, Maria farà mangiarlo al bambino*
the ice cream Maria will make eat- it-CL to the child
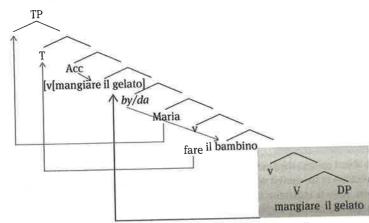'The ice cream Maria will make the child eat (it)'

Consider now *fare-da* causatives of the type in (3), illustrated in (6):

(6) Main derivational ingredients of *fare-da* type causatives:
Maria farà [mangiare il gelato] dal bambino
Maria will make eat the ice cream by the child
'Maria will make the child eat the ice cream'

Movement of chunk of verb phrase/*smuggling*

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7 This is an important difference between causatives and restructuring contexts, in which the clitic is allowed to be cliticized (as a pro-clitic) either onto the restructuring verb, a modal verb in the example (ia), or onto the infinitival verb (as an en-clitic), (ib):

(i) a. *(Questo libro) lo voglio leggere*
(this book) (I) it-CL want to read

b. *(Questo libro) voglio leggerlo*
(this book) (I) want to read- it-CL
'(This book) I want to read it'

See Burzio (1986) and Rizzi (1978) for a classical discussion of these differences, which also crucially point to some important structural distinctions to be assumed between causatives and restructuring structures, a discussion that is beyond the scope of this article.

The crucial hypothesis in (6) is that the causative voice in *fare*-da causatives is expressed by the preposition *by(da)*, possibly by incorporating it. The preposition *by(da)* is the same preposition which participates in the composition of the passive voice. There is a crucial difference between the preposition *by* in passive and the same preposition *by* in causatives though: whereas in passive sentences the nominal complement of the preposition *by* is interpreted as carrying exactly the same Th-role as the subject of the clause in a sentence containing the same verb in the active voice – i.e. as the external argument in the verb argument structure –, with the preposition *by* thus having the status of an expletive type preposition, in *fare*-da causatives the complement of the preposition *by* is necessarily agentive or anyway it is directly involved in the caused event. Hence, typically it cannot count as a simple experiencer of a psychological state. This is in sharp contrast with the *by*-phrase of passive sentences, as illustrated in (7):

(7) a. *Tutti temono il terremoto*
Everybody fears the earthquake

b. *Il terremoto è temuto da tutti*
The eathquake is feared by everybody

c. **Le vittime fanno temere il terremoto da tutti*
the victims make fear the earthquake by everybody
'The victims make everybody fear the earthquake'

The impossibility of (7c) contrasts with the well-formed status of (8) containing a *fare-a* causative: the dative external argument is compatible with the experiencer interpretation. According to the analysis above this is expressed through the hypothesis that in *fare-a* causatives the causative voice is an independent head distinct from the dative preposition *a*:[8]

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8 Beside, there could be a privileged link between the dative preposition *a* and the experiencer role. This may not be surprising given the existence of dative-experiencer psych-verbs as those of the *piacere* class in Italian (Belletti and Rizzi 1988). This would suggest that the dative of *fare a* causatives has the same status as an experiencer dative. See Belluci's (2015) proposal according to which the dative of causatives behaves like a quirky subject. The relation of dative Case with the experiencer role would amount to saying that the *a*-DP of causatives is typically also associated with an experiencer role, possibly as an adjunct role which combines with the role carried by the nominal expression as the external argument of the infinitival verb phrase. The notion of adjunct theta-role is borrowed from Zubizarreta's (1982) proposal, where precisely this term is used. Furthermore, the hypothesis just hinted at here may also express the "affected" status of the external argument in these types of causatives as the experiencer of the caused event (beside being e.g. its agent as the external argument of the infinitival verb), often reported and discussed in the literature (see Guasti 1993 and references cited there on this point).
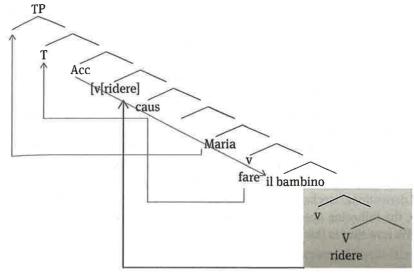
(8) *Le vittime fanno temere il terremoto a tutti*
    the   victims make fear the earthquake to everybody
    'The victims make everybody fear the earthquake'

Assuming an approach along these lines, which hints at a possible route to differentiate in part the two types of causatives – as required by the literature on this issue (footnote 3) – the derivation in (6) highlights one crucial feature that both causatives have in common: the fact that they both involve movement of a chunk of the infinitival verb phrase, attracted by a head expressing the causative voice into its specifier. Much as in the *fare-a* causative, also in the *fare-da* causative the internal argument is assigned accusative Case, through Agree with the functional head generally responsible for structural accusative, labeled Acc in the structure. As the example in (9) shows, that this is an accusative object is explicitly indicated by the possibility of expressing it with an accusative clitic:

(9) *(Il gelato) Maria lo farà mangiare dal bambino*
    (the ice cream) Maria it-CL will make eat   by the child
    'The ice cream Maria will make the child eat (it)'

We are now left with the last type of causative, the one containing no direct object of the verb in the infinitival verb phrase. The same derivational mechanisms can be assumed to be at work also in this case, with the chunk of the infinitival verb phrase attracted by the causative voice head into its specifier, as illustrated in (10). By assumption, the head responsible for dative in (4) is inactive/absent in this structure; accusative is not discharged onto the object of the moved chunk since there is no object in this case; thus, accusative is assigned to the external argument of the infinitival verb phrase through the establishment of Agree from the Acc head. That this argument is marked with accusative Case is once again shown by the familiar possibility of pronominalizing it with an accusative clitic (11).

(10) *Maria farà ridere il bambino*
     Maria will make laugh the child
     'Maria will make the child laugh'

Movement of chunk of verb phrase/*smuggling*

(11) *(Il bambino) Maria lo farà ridere*
     (the child) Maria him-CL will make laugh
     '(The child) Maria will make him laugh'

One last question must be addressed concerning the computations assumed to hold in causatives: in all of the assumed derivations the implicit hypothesis has been made that the Initiator external argument of *fare* which is raised into the matrix subject position does not count as an intervener in blocking the Agree relation between the relevant Case marking head and the external argument of the lexical vP. The assumption has been made despite the fact that the Initiator DP c-commands the DP/external argument of the lexical vP. How could this be possible in compliance with intervention locality/Relativized Minimality (Rizzi 1990, 2004)? Let us make the implicit assumption explicit: precisely because the Initiator external argument of *fare* raises into the matrix subject position, I assume that it does not count as an intervener. In the final representation of the derivation, it is only its copy that intervenes with respect to the lower external argument of the lexical vP. Thus, whereas derivationally it would count as an intervener (closest DP, Chomsky 2001), in the final representation it does not under the assumption that for an element to count as an intervener all of its occurrences must be in an intervention configuration, i.e. the whole chain of the element in question (Krapova and Cinque 2008 for the first detailed formulation of the proposal). Hence, just a copy of it would not destroy the relevant local

relation. See section 3.1 below for more on this type of interpretation of intervention locality in these (causative) structures.

Let us assume that the analyses sketched out in (4), (6) and (10) above, which make crucial reference to the movement of a chunk of the verb phrase are empirically adequate in their essential respects and capture some fundamental descriptive properties of causatives, much as the analysis of passive does involving the same type of movement, following Collins' (2005) original *smuggling* proposal. Granted that a number of details may (and will have to) be further spelled out, I will consider this type of analysis as being on the right track and assume it.

One fundamental question is raised by this analysis, which I want to highlight here: if passives and Romance causatives of the type considered have one crucial derivational mechanism in common, i.e. movement of a chunk of the verb phrase, the following question arises: what is the status of this type of movement? We now turn to this question.

3 Movement of a chunk of the verb phrase: The issue

In minimalist terms the question above amounts to asking what the effect of such movement would be at the interface with the interpreting systems (Chomsky 1995 and much subsequent related literature), or, put differently, what movement of a chunk of the verb phrase contributes to the interpretation of the output structure.

We may ask the question in a straightforward way: What kind of syntactic operation is the movement of a chunk of the verb phrase? Typically, syntactic movement operations target nominal arguments (or clausal arguments or also adverbials, Haegeman 2012) and have an interpretive effect on their outcome: this is prototypically the case for A'-movements targeting different positions in the cartography of the left periphery of the clause, yielding e.g. wh-questions, (corrective/contrastive) focalizations (Rizzi 1997; Belletti 2009; Bianchi, Bocci, and Cruschina 2014), types of topicalizations (Benincà and Poletto 2004; Bianchi and Frascarelli 2010; Frascarelli and Hinterhölzl 2007). But this is also the case for the A-movement of the internal argument into the preverbal subject position of the clause as in passives or in sentences containing an unaccusative verb or in raising structures.[9] And this is more generally also the case whenever the external argument of a transitive or an intransitive verb raises from its merge position within the vP: movement of a DP into the preverbal subject position

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[9] Raising to subject or to object (see Chomsky 2015 for recent discussion on the latter).

has the interpretive effect of creating a predication/aboutness relation whereby the sentence is interpreted as being about the DP subject in a criterial type configuration expressed through a Subject criterion (Cardinaletti 2004; Rizzi 2005; Rizzi and Shlonsky 2007). The question raised above then becomes: What is the interpretive effect of movement of a verbal chunk? Has this movement a comparable effect to that of A or A' movement of e.g. a nominal/clausal constituent? Beside it being overtly visible and thus producing a clear effect on word order, as is clearly the case in the Romance causatives illustrated in (2), (3), and (10), why should such movement occur to start with? What is the ultimate generator for it?

3.1 Labeling causatives

I would like to put forth the proposal that this type of movement has in fact a deep motivation: it is a direct consequence of the so-called labeling algorithm (Chomsky 2013, 2015; Rizzi 2015a, 2015b; Cecchetto and Donati 2014; Boskovic 2008, 2015). This movement comes from the necessity to label a phrase that would otherwise remain unlabeled, thus leaving the structure uninterpretable at the interfaces. If this hypothesis is correct, the generator of this movement is in fact grounded within a crucial mechanism of syntactic computations and, as expected, has a fundamental effect on the outcome: the readability of the structure. According to the proposal developed in detail below, attraction by the causative voice head of the verbal chunk, as illustrated in section 2, creates the possibility for the external argument of the infinitival verb phrase, sometimes referred to as the causee, to transfer its DP label to the remaining phrase, which thus becomes visible for syntactic operations. It can be Case marked with accusative with intransitive verbs, as in (10), or by either the preposition *a* or *da*, as in (4) and (6).

Let us put the system into work. As is discussed in Chomsky (2013, 2015) and Rizzi (2015a, 2015b), the labeling algorithm requires that movement occurs in a situation as the one illustrated in (12), which results from having externally merged a phrase with another already constituted phrase:

(12)

$$
\begin{array}{c}
\alpha \\
\diagdown \\
\text{Phrase}_1 \quad \text{Phrase}_2 \\
\diagup\diagdown \qquad \diagup\diagdown \\
\text{H}_1 \qquad \quad \text{H}_2
\end{array}
$$

As Rizzi (2015a, 2015b) discusses in detail, the situation in (12) is the one that typically arises when an external argument is merged with the phrase containing a verb and its arguments. Hence, in the spirit of the dynamic approach à la Moro

(2000), movement of the external argument – Phrase$_1$ in (12) – takes place thus making it possible to attribute the label vP to the remaining category – α in (12)[10], a process that is illustrated in (13).

(13) a.   α   b.   vP
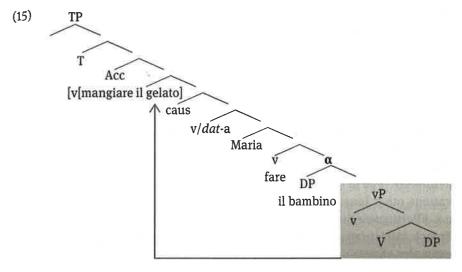
         DP   vP   <DP>   vP

The external argument is attracted to the relevant subject position providing the criterial aboutness interpretation mentioned above. Thus, the overall structure can be interpreted at the interface, since all its constituents are labeled and all criterial features are attributed.

Assume now that the other option is taken in a structure of type (12), so that the phrase undergoing movement is Phrase$_2$. If Phrase$_2$ corresponds to the verb and its internal argument and the higher structure contains a causative head with the described attracting property, this movement corresponds precisely to movement of a chunk of the verb phrase, as discussed in section 2 for causatives. Compared to the schematic representation in (13), the result of movement of the vP chunk would correspond to (14):

(14) a.   α   b.   DP

         DP   vP   DP   <vP>

Let us reconsider the derivation in (4), repeated in (15) illustrating with a *fare a* structure. For the sake of clarity only the relevant movement of the verbal chunk is illustrated in (15):

(15)

TP

T

Acc
[v[mangiare il gelato]]

caus

v/*dat*-a

Maria

v   α

fare   DP

il bambino

vP

v

V   DP

α is the phrase that needs to be labeled in (15), since it is generated by merging two phrases: the external argument (DP) and the verb with its internal argument (a vP chunk). By moving the verbal chunk to a higher position, the remaining phrase is the DP *il bambino*/the child. We can therefore assume that α is also labeled DP, through the same mechanism by which it is labeled vP when it is the external argument which moves, illustrated in (13). (15) instantiates the option available in principle, as illustrated in (14b). By hypothesis, in causatives the moving vP chunk is attracted by the causative voice head. It thus ends up filling the specifier of the phrase headed by the causative voice.[11]

The productive and rather pervasive presence of causatives in Romance and the rather widespread existence of causative structures with similar

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10 The reason why copies of moved phrases cannot provide a label is discussed in detail in Rizzi (2015a: 326). Essentially, all occurrences of a given element should be contained within the phrase in need of a label for it to be labeled with the category of that element. In this article I will assume that copies are not a possible labeling source without further discussion, along the lines of Chomsky's and Rizzi's approaches.

11 And labeled with the relevant voice label, e.g. CausP or just vP again. I leave this question open for now, which may ultimately be quite relevant depending on the role of morphological voices at the interpretive interface. See section 2.1.2 for some further proposal on the criterial status of the causative voice.

In a sentence like (i) the realization of the external argument of the lexical verb as a dative clitic indicates that movement of the chunk of the verb phrase must have occurred, thus making accusative accessible to the internal argument *il gelato/the ice cream*. These structures do not instantiate the English-type causative to be discussed in connection with (16).

(i)   *Maria*   *gli*   *farà*   *mangiare*   *il*   *gelato*
     Maria   to him$_{cl}$ will make   eat   the   ice cream

properties across languages makes it natural to assume that some core computational mechanisms should be at the origin of these structures. One such core mechanism may originate from the labeling requirement of the syntactic structure.

How about moving the DP external argument of the verb also in a causative structure? Note that such movement would be permitted on locality grounds also in causative-type structures, should a landing site be present for the DP such that the higher Initiator external argument does not count as an intervener (under Krapova and Cinque's 2008 interpretation assumed above). It can be speculated that such a possibility is indeed instantiated by a different type of causative construction: the one that exists in English and various other languages (among which are also some Romance languages, e.g. EPortuguese Santos, Gonçalves, and Hyams 2015; Belletti and Costa 2015, French *laisser* etc.). Consider (16), and also the translations of the Italian examples above:

(16) a. *Mary made/let [the child eat the ice cream/run]*
　　 b. *Mary made/let him eat the ice cream/run*

(16a) shares properties of the so-called ECM/Raising to object construction (Chomksy 1981), in which the causative verb *make* would take a small clause complement, from where the external argument would raise into some position in the matrix clause. As shown in (16b), the external argument of the embedded verb is marked with accusative Case, a property of the functional structure of the matrix clause. Let us assume here that the functional structure of examples like (16) is essentially the same as that of causative *fare*, as e.g. in (15) above.[12] We can then assume that the fundamental difference between causatives of the Italian type and causatives of the English type should concern the nature of the causative voice in one of the following two ways: the causative voice of English type languages could either be assumed not to have any movement attracting property at all, in contrast to the causative voice of Italian type languages or it could have a different movement attracting property. In the latter case, it should attract the DP/External Argument and not the vP-chunk.

Let us consider the two options in turn. If the former option is taken, one should conclude that causative structures of the English type are ECM/Raising to object structures of the same type as classical ECM structures, as shown in (17) (Kayne 1981):

(17) *I believed [John to have solved the problem]*

In both (16) and (17) the External argument of the embedded complement would move into the matrix Case position. Movement of the DP in (16) would thus be independent of the presence of the causative voice in English, and it would only occur for Case requirements, as in (17). There are reasons to believe, however, that the causative case in (16) cannot be reduced to standard ECM/Raising to object constructions of the type in (17). Therefore the second option seems preferable: the moving engine in the case of causatives should be the causative voice in English as well, much as we have proposed for Romance Italian type causatives. The difference between the two types of causatives would only concern the element which is attracted: the vP chunk in the Italian type and the DP/external argument in the English type.

Let us now consider the potential weakness of reducing movement of the DP/External Argument in (16) to a regular ECM/Raising to object movement of the type in (17), triggered by pure Case requirements.[13] There is a well-known crucial difference between (16a) and (17): the nature of the embedded complement is not the same in the two cases, since it contains more functional structure in (17) than in (16a), as indicated by the presence of the infinitival marker *to* in the former and its absence in the latter. Indeed, the reduced complement of causative *make* is clearly identified in English by its impoverished functional structure (comparable to the complement of perception verbs). In current terms, we can say that the verbal complement of these verbs corresponds to the vP projection plus some functional structure containing it. However, this functional structure does not contain up to certain relatively high clausal functional heads, such as the head hosting the infinitival marker *to*. Thus, even if the complement in (17) is likely to be more reduced than a complete CP with a full-fledged left periphery,[14] it still has more clausal-type functional structure than the small clause complement of causative *make* (and of perception verbs). The external argument of the

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12 With the proviso that the causative voice does not select any v/dative, nor is it ever incorporated into the expletive preposition *by*. For the time being we state this as an independent property, which should ultimately be derived from some more primitive (morphological) parameter, differentiating the Italian type from the English type causative verbal spine.

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13 The relevance of the contrasts to be discussed momentarily in (18)–(20) has been brought to my attention by Luigi Rizzi in class discussion.
14 As is assumed in literature on ECM (Chomsky 1980, 1981, Kayne 1981).

clausal complement of (17) is marked accusative, instantiating a typical ECM/Raising to object, schematically illustrated in (18) for its essential steps, i.e. Agree and raising:

(18) I believed... [him [Acc]... [<__> to have solved the problem]

Agree

Note that if the accusative head is not active, as in the presence of passive morphology, the DP is allowed to pursue its movement and become the subject of the matrix clause, as indicated by the possibility of passivizing the matrix verb, illustrated in (19):

(19) John/He is believed <__> [__ to have solved the problem][15]

In (19) the position indicated as <__> is the position to which we assume that the DP has first moved from the embedded clause (see footnote 15). Consider now the fact that what may look like the same movement cannot take place if the matrix verb is causative make, as is indicated by the ungrammaticality of the following sentence in (20), the passive version of (16a):

(20) *The child was made/let <__> [__ eat the ice cream] (by Mary)

All things being equal, the ungrammaticality of (20) strongly suggests that the position <__> is not the same in (20) and in (19). This conclusion may have consequences for the proper analysis of (16), in particular the question raised above whether the position to which the DP/External Argument raises could be the same position as that to which it raises in active ECM/raising to object structures (cf. [18]). If it were, it would not be obvious why the two structures should not
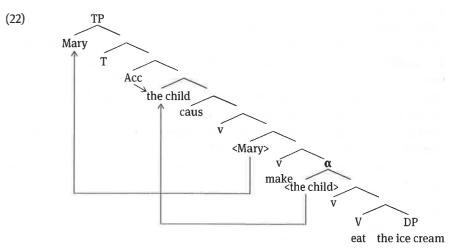
behave alike in the case of passive, as the ungrammaticality of (20) indicates, in contrast with the possibility of (19).[16]

Let us then assume that the position to which the DP/External Argument raises is in fact not the same in the two cases. If in ECM/Raising to object structures it corresponds to the specifier position in which accusative Case is assigned, in the causative make structure it could correspond to the specifier of the causative voice instead. Going back to our central question above, we can then propose that the crucial difference between Romance causatives of the Italian type and causatives of the English type is to be found in the different movement attracting property of the same causative voice head, which can be schematized in the following parametric difference:

(21) a. Romance Italian type: caus voice attracts vP chunk
      b. English type: caus voice attracts DP/External Argument

Hence, no movement of a verbal chunk is triggered in causatives like English (16).

Consider now the consequence that this has from the point of view of labeling. By labeling requirements, in English type causatives the phrase that moves so that α can be labeled is the DP external argument, according to the proposal just made. The relevant aspects of the proposed derivation are illustrated in (22):

(22)

15 Note that in (19) the passive voice in the matrix clause attracts the DP/External Argument of the complement clause directly (no violation of locality produced here as no intervention configuration is met since the moved DP is an external argument). In a more detailed analysis it should attract a vP chunk as is always the case in passive sentences (when the DP to be promoted to the subject position is an internal argument; see section 2). The chunk to move in this case is the vP headed by believe, containing the complement (reduced) clause, say TP for concreteness. Hence the DP moving from the smuggled position can only be the TP subject John, for familiar locality reasons. The schematic representation in (19) assumes direct movement of DP from the <__> position for the sake of clarity.
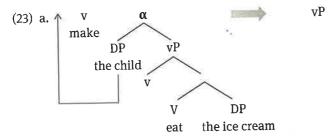
16 Speakers tend to marginally accept passivization with "causative make" by possibly treating it as a believe-type verb, as witnessed by the presence of the marker to in the infinitival complement of examples like the following:
(i)   a. ?(?) The child was made to eat the ice cream (by Mary)
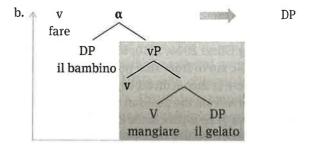   b. ?(?) He was made to feel special
The possibility of a believe-type analysis, however, never extends to active causative structures, which is possibly due to the fact that ECM structures may be disfavored if alternatives are available such as the causative analysis of make.

Note that since the position to which the DP causee external argument moves is lower than the subject position to which the Initiator external argument of *make* moves (Spec/TP in [22]), the derivation satisfies locality. As proposed earlier, this is so under the natural assumption that a constituent of the same relevant type as the moved constituent counts as an intervener if all of its occurrences (structurally) intervene in the dependency created by movement. This is not the case in (22). Specifically, in (22) the two relevant constituents are both (lexically restricted) DPs. However, whereas the first occurrence of the DP/*Mary*, i.e. its copy, does intervene in the movement of the DP/*the child*, the occurrence of the head of the chain of the DP/*Mary* does not: the head of the chain of the moved DP/*the child* is hierarchically lower, as clearly indicated by the crossing of the two chains in (22). Hence, intervention locality is satisfied in this derivation under our assumptions.

In conclusion, in a language in which the causative voice has the movement attracting property of probing the DP external argument (EA) of the embedded verb phrase, the causee, the labeling procedure will attribute the vP label to the remaining constituent: α is thus labeled vP in (22). Unsurprisingly given the verbal nature of the small clause complement of the causative verb, in this type of causatives labeling works in the same way as in simple (non causative) clauses modulo the different landing site of the moved external argument, Spec/TP in simple clauses and Spec/*caus* in causatives. In contrast, if the causative voice has the movement attracting property of probing the vP phrase, movement affects a verbal chunk of the embedded verb phrase. The remaining constituent α is thus labeled DP. The former case corresponds to English type causatives, the latter to Italian type causatives. Both types of causatives are derived in compliance with the very fundamental labeling requirement. Zooming in on the relevant part of the structure, the two labeling operations look like (23a) for English type and (23b) for Italian type causatives respectively:

(23) a.

b.

Thus, according to our proposal, the seemingly very different syntax of these two types of causatives shares in fact the same fundamental (structural) ingredients, and instantiates the two possible (movement) options allowed and in fact required by the structure generated by Merge:

– movement of DP (/EA)
– movement of vP(-chunk)

The ultimate impulse to movement in both cases is the labeling requirement in compliance with different properties of the causative voice head.

3.1.1 Speculations on the nature of the causative head at the interface: caus as a criterial head

In the preceding section we have highlighted the impossibility for the raised DP/external argument of the vP small clause complement of the causative verb *make* to be raised into the subject position of the clause in a passivized structure containing *make* (as in [20]). As a shortcut we can say that the causative cannot be passivized in English. It would be interesting to see whether the proposal developed in the preceding section could shed some light on this fact.

I would like to speculate that the proposal can in fact shed some light if it is assumed that the causative voice is a criterial head in the sense of Rizzi (2006) and subsequent work. From an interpretive point of view this assumption is fairly natural: the causative interpretation crucially involves the presence of this head in the clause functional structure. Hence, it should be expected that filling the specifier position of this head would create a criterial configuration such that the phrase in Spec and the head share the relevant cause feature and the phrase is interpreted as directly involved in the caused event. In English type causatives such a phrase is the DP/external argument,

often referred to as the causee. If the *caus* head is a criterial head, this has as the consequence that the element in its specifier is "frozen in place" under the principle of *Criterial Freezing* (Rizzi 2006, 2010; Boskovic 2008). In other words, the phrase cannot further move from this position. If the causative voice head is a criterial head, there is then a direct explanation as to why the DP/external argument cannot move from the position to which it has raised in the matrix clause. Whence passive of causative *make* is predicted to be impossible, as was illustrated in (20) above. Notice that there is no ban on passivizing *make* per se, as shown by possible sentences like the following and many similar ones containing non-causative *make*:

(24) *The cake has been made by Mary*

The ban is on passivizing *make* in the causative construction, but this should be expected if the causative voice head is a criterial head. This hypothesis has also the advantage of reducing the effect of the movement process of causatives to the general outcome of movement triggered by labeling requirements, as proposed in Rizzi (2015a): the output satisfies an interpretive criterion.

An obvious question to ask now is: What about Italian type causatives? Let us first of all establish the empirical minimal difference with English type causatives in the domain of passivization: causative *fare* can be passivized, resulting in structures in which the internal argument of the moved vP chunk is raised into the subject position, as illustrated in the active-passive pair in (25a, 25b) (the moved chunk within square brackets in [25]), with both *fare a* and *fare da* causatives:

(25) a. *Maria   ha fatto   [mangiare   il   gelato]   al/dal   bambino*
        Maria   has made   (to) eat   the   ice cream   to the/by the   child

    b. *Il   gelato   è   stato   fatto   [mangiare <___>   al/dal*
        the   ice cream   (is) has   been   made   (to) eat   to the/by the

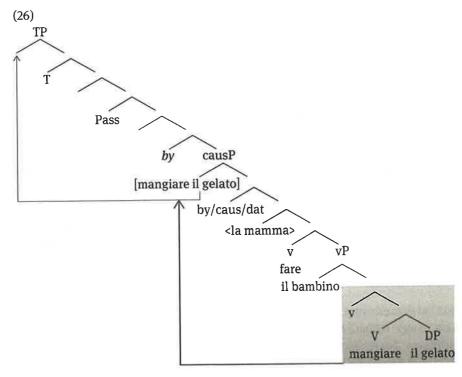   *bambino   da   Maria*
        child   by   Maria

Let us concentrate on the position from which movement of the DP/internal argument takes place in (25b): as in a regular passive derivation, movement should take place from the position where the vP chunk has been *smuggled*. Given the proposed analysis, it seems reasonable to assume that in the case of (25b) the vP chunk is first attracted into the specifier of the causative voice, in contrast to passive structures that do not contain the causative voice. Hence, the <___> position is contained within the phrase occupying the specifier of the criterial *caus* head voice. The natural question to ask then is: Is this extraction compatible with the criterial nature of this head assumed above? Specifically: Is it compatible with criterial freezing? I would like to suggest that it is, under Rizzi's (2010) interpretation of the freezing constraint: whereas the freezing constraint blocks movement of the whole constituent satisfying the relevant criterion, subparts of it can undergo movement in view of satisfaction of another criterion.[17] This is precisely what happens in (25b). The vP chunk satisfies a causative criterion, thus being interpreted as the caused event, and then the internal argument is moved into the subject position where the Subject criterion is thus satisfied in turn. The major relevant steps of the derivation are illustrated in (26), which highlights the movement of the vP chunk into the specifier of the causative voice and the subsequent extraction of the internal argument:[18]

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[17] This means that the only frozen constituent is the probed one, satisfying the criterion. In this way it can be explained why movement of part of a phrase into the R(elative) head position in the higher CP is possible, as in the example in (i). The constituent is extracted from a bigger focused phrase filling the left peripheral focus position of the lower CP, in which the Focus criterion is satisfied:

(i) *L'autore di cui hanno detto [che [IL LIBRO <___>] hanno censurato (non il disco)]*
    the author of whom they said that the book they have consored (not the record)

[18] To highlight the core of the proposal, a number of other major processes are not illustrated in (26), such as the Agree relation between the dative *a* and the caus-*by* head, here collapsed to simplify the structure, and the external argument of the vP, "il bambino", and movement into Spec of passive *by* of the Initiator external argument of *fare* and subsequent movement of *by* into the *pass* head. The *pass* voice, as is always the case, should attract a verbal chunk into its specifier. The chunk would consist (at least) of the verbal phrase labeled *causP* in (26). All these movements in the complete derivation do not affect the main point illustrated in (26): the internal argument of the lexical verb, i.e. *il gelato*, can undergo movement as it is an instance of sub-extraction from the criterial *Spec/causP*.

(26)

TP
├ T
│ └ Pass
│   └ by
│   └ causP
│   [mangiare il gelato]
│   by/caus/dat
│   <la mamma>
│   v vP
│   fare
│   il bambino
│   v
│   V DP
│   mangiare il gelato

Notice incidentally that since the phrase satisfying the criterion induced by the *caus* head is, in this case, the verbal constituent, an immediate prediction of this analysis is that the whole verbal chunk satisfying the causative criterion could not itself be moved thus vacating the criterial position. This is indeed the case as shown by the ungrammaticality of (27a), in which the infinitival complement of *fare* has been pre-posed under clefting. (27a) minimally contrasts with the well-formedness of (27b), in which the pre-posed constituent is an ordinary infinitival complement clause:[19]

(27) a. *È   [prendere la   medicina] che   ho   fatto___   a
        (it) is to take   the   medicine   that (I) have made   to
        Maria
        Maria

---

   b. È   di prendere la   medicina che   ho   ordinato___
      (it) is   to take   the   medicine   that (I) have ordered
      a   Maria
      to   Maria

3.1.1.1 Some related considerations on French

In as far as the possibility of passivizing causatives is concerned, all things being equal, one would expect that French should behave like Italian, since the two languages have the same type of causative construction(s). However, this is not the case and this is in fact a well-known area in which the two languages differ: whereas passive of causative *fare* is possible in Italian, the equivalent passive of causative *faire* appears to be excluded in French (Ruwet 1972; Kayne 1975; Guasti 1993). There are reasons to believe, however, that the main reason for this exclusion does not mainly concern the causative construction *per se*, but rather the interaction between properties of past participle agreement and causative *faire* (Kayne 1989, 2008; Bouvier 2000). We now sketch the main features of what looks to us like a reasonable line to interpret the unexpected behavior of French.

Interestingly, Kayne (2008) points out that in his first illustration of the impossibility of passivizing causative *faire*, Ruwet (1972) offered an example like (28a), with no past participle agreement of passivized *faire*, and not one like (28b), in which the past participle of passivized *faire* agrees with the (feminine, plural) internal argument, which has moved into the subject position:

(28) a. * *Les*   *pommes*   *de*   *terre*   *ont*   *été*   *fait*   *manger*
         the   potatoes   have   been   made   to eat
     b. *(*) *Les*   *pommes de terre*   *ont*   *été*   *faites*   *manger*
         the   potatoes$_{FEM.PL}$ have   been   made$_{FEM.PL}$ to eat

Kayne comments on the exemplification provided by Ruwet in the following terms: "… presumably indicating that for Ruwet, (our, AB) 28b with agreement would have been even worse than (our, AB) 28a". In other words, past participle agreement is completely impossible, say inconceivable, with causative *faire*. Note that the past participle of the lexical verb normally agrees with the moved internal argument in French passives:[20]

(29) *Les*   *pommes de terre*   *ont*   *été*   *mangées/*   *cuites*[20]
     the   potatoes$_{FEM.PL}$ have   been   eaten$_{FEM.PL}$/   cooked$_{FEM.PL}$

Hence the fact of somehow preferring lack of past participle agreement in (28a) is all the more intuitively surprising. Causatives are surprising in the domain of past participle agreement also in another respect, again, as has been described since Kayne (1975) (but see also Kayne 2008 for re-discussion). Whereas past participle agreement is possible and for some speakers quasi-obligatory under cliticization of third person clitics (30a), the same does not hold at all in causatives. Here, once again, past participle agreement is impossible (30b) vs (30c). In contrast, when *faire* is used in its non-causative value, past participle agreement is regularly available (30d).

(30) a. *(La   pomme),   Marie   l'a   cuite*
     (the   apple$_{FEM.SING}$)   Marie   it-CL$_{FEM.SING}$ has   cooked$_{FEM.SING}$

   b.*(La   pomme),   Marie   l'a   faite   cuire*
     (the   apple$_{FEM}$)   Marie   it-CL$_{FEM}$ has   made$_{FEM}$ (to) cook

   c. *(La   pomme),   Marie   l'a   fait   cuire*
     (the   apple$_{FEM}$)   Marie   it-CL$_{FEM}$ has   made   (to) cook

   d. *(La   tarte),   Marie   l'a   faite   avec   amour*
     (the   cake$_{FEM}$)   Marie   it-CL$_{FEM}$ has   made$_{FEM}$ with   love

All the Italian equivalents of the French examples are perfectly grammatical, with past participle agreement in all cases: under passive, as in French; under cliticization, as in French; but, differently from French, also in causatives, both in the active causative (possible in French with no past past participle agreement under cliticization), and in the passive causative (impossible in French, with or without past participle agreement, as in [28]):

(31) a. *Le   patate   sono   state   mangiate*[21]
     the   potatoes$_{FEM.PL}$ have   been$_{FEM.PL}$ eaten$_{FEM.PL}$

   b. *(La   mela)   Maria   l'ha   cotta*
     (the   apple$_{FEM.SING}$)   Maria   it-CL$_{FEM.SING}$ has   cooked$_{FEM.SING}$

   c. *(La   mela)   Maria   l'ha   fatta   cuocere*
     (the   apple$_{FEM.SING}$)   Maria   it-CL$_{FEM.SING}$ has   made$_{FEM.SING}$ (to) cook

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21 With the further well-known difference between Italian and French: in Italian past participle agreement also occurs with the (passive) past participle auxiliary, differently from French. See Belletti (2006/and forthcoming update) for an overview of past participle agreement phenomena; Kayne (1989) for the influential view that past participle agreement be implemented under a Spec-head relation, in a way that does not differ from other more familiar forms of agreement (e.g. subject-verb agreement in finite clauses), a fundamental insight assumed in the text.

   d. *La   mela   è   stata   fatta   cuocere   da   Maria*
     the   apple   has   been$_{FEM.SING}$ made$_{FEM.SING}$ (to) cook   by   Maria

It thus seems that the crucial difference between Italian and French in the domain of causatives is to be recognized in the unavailability of past participle agreement with causative *faire*, be it in the active or in the passive voice. We speculate that the impossibility of passivizing the causative in French is related to the impossibility of this agreement (in a spirit similar to Kayne's 2008 discussion). More specifically, following the insight of Bouvier (2000), I assume that *faire* in the causative voice has a somewhat reduced past participial structure, such that it does not contain the relevant agreement type projection which is crucially involved in past participle agreement: passing through the specifier of this agreement head (Belletti 2001, 2006; Friedemann and Siloni 1997) the moving DP internal argument in the passive causative or the clitic in the active causative should trigger past participle agreement. If there is no such position in French then agreement is not and cannot be activated. This may be the reason why DP movement in the causative seems degraded since past participle agreement is normally required in the passive in French.

Interpreting the relevant contrasts in French in this way may have interesting consequences as far as the comparison between French and Italian is concerned in the domain of passivization in the causative construction.

Recall that the proposal we made in the preceding section, which considers the *caus* voice as a criterial head yielding criterial freezing effects, allowed for the possibility that the internal argument be (sub-)extractable from the *smuggled* verbal chunk without the relevant causative criterion being violated. This is what we have assumed to be at work in Italian in the domain of passive, thus allowing passivization of causative *fare*, with extraction of the internal argument from the *smuggled* verbal chunk (cf. [26]). All things being equal, we would expect that this possibility should also be available in French, due to the similarity of the causative construction in the two languages. This is a more specific way of formulating the question from which the present section started. We can now conclude that there should be no ban in principle for the internal argument to be extracted from the moved verbal chunk in French as well. The problem in French causatives leading to the impossibility of passive should stem from the impossibility of performing past participle agreement in this language, due to the reduced structure of causative *faire*. If a non-agreeing past participle of causative *faire* were tolerated, passivization of the causative should also be available in French, i.e. the internal argument should be (sub-)extractable in French just like in Italian. This is precisely what Bouvier (2000) describes: whereas an agreeing feminine past participle is totally inconceivable in French causative *faire* as in (28b) and (30b) above, and in (32b) below, due

to the lack of the relevant structural position for agreement, a non-agreeing past participle as in (32a) is much better. Since the non-agreeing (unmarked) form of the past participle corresponds to a masculine singular ending, the lack of obligatory past participle agreement is in some sense less visible/audible.[22] With this in mind, consider the contrast between (32a) and (32b), noted by Bouvier (2000):

(32) a. *Un pantalon*   *a*   *été*   *fait*   *faire*   *(par Marie)*
      a   pant$_{MASC.SING}$ has   been   made$_{MASC.SING}$ (to) make   (by   Marie)
   b. **Une jupe*   *a*   *été*   *fait(e)*   *faire*   *(par Marie)*
      a   skirt$_{FEM.SING}$ has   been   made$_{(FEM.SING)}$ (to) make   (by   Marie)

This amounts to claiming that the non-agreeing form of the past participle of causative *faire* in examples like (32a) is somehow reanalyzed *a posteriori*, as a masculine singular past participle, thus giving a "feeling" of agreement. Be it as it may, the crucial point for our discussion here is that passive of causatives should be considered ungrammatical in French due to the impossibility of performing past participle agreement, which itself, by hypothesis, is due to the structural reduction of causative *faire*.[23] Italian causative *fare*, on the other hand, is assumed to be contained within a fully specified past participial structure, whence the possibility and obligatoriness of past participle agreement in the passive of causatives, as is standardly the case in Italian. In as far as the prediction made by our analysis in section 3.1.2 is concerned, which makes crucial reference to the criterial nature of the causative voice and the consequent operation of criterial freezing, French seems indeed to behave like Italian, allowing for sub-extraction of the internal argument from the criterial

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22 Other instances of passivizing the causative are provided by impersonal passives, not involving movement of the internal argument, hence not needing past participle agreement on causative *faire* anyway. See Kayne (2008) and, again, Bouvier (2000) for the following sentence in (i), minimally contrasting with the ungrammatical (32b) in the text:

(i)   *Il*   *a*   *été*   *fait*   *faire*   *une*   *jupe*
    it   has   been   made   (to) make   a   skirt

23 I suspect that some normative pressure may also be at play in this domain: past participle agreement in passive is required as a reflex of the DP internal argument moving through the specifier of the (passive) past participial agreement head. Hence, if it cannot be realized, due to the structural reduction of the past participle (as in the case of causative *faire*), the non-agreeing form is still not "allowed". However, we should conclude that it is allowed to some extent, as shown by the possibility of sentences like (32a) (where agreement can plausibly be rescued *a posteriori*, as suggested in the text). The normative pressure is strong enough as not to allow that the non-agreeing form also occurs with a feminine subject, whence the ungrammaticality of sentences like (28a).

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spec position of the causative voice, as indicated by the (marginal) possibility of examples like (32a). Note that the equivalent of (32a) in English type causatives is completely ungrammatical for all speakers, as discussed in relation with (20) in section 3.1. We have interpreted this impossibility as a consequence of the operation of criterial freezing, whereby no variation is expected with this type of causatives. This seems a reasonable idealization of the relevant distinctions and properties of the morphosyntax of the different types of causatives, analyzed in a comparative perspective.

4 Remarks on the comparison between passive and causatives and some related considerations from acquisition

4.1 Passive

We have pointed out in section 2 that movement of a verbal chunk is operative in passive, following Collins' (2005) analysis in terms of *smuggling*. The trigger for movement of the chunk is, in the case of passive, (some component of) the passive voice. Movement of the verbal chunk in this case has an important side effect: it eliminates the potential intervention-locality violation, which would inevitably arise in the application of one crucial step in the standard derivation of passive. This step is the movement of the object internal argument across the external argument, which is merged in a higher position in the verb phrase. This consequence has sometimes led some linguists to manifest a certain amount of skepticism about the *smuggling* operation, as if it had a "look-ahead" flavor, which is incompatible with minimalist assumptions, and more generally, with a purely formal view of syntactic computations. The look-ahead flavor would stem from the impression that movement of the chunk of the verb phrase is implemented in order to allow movement of the internal argument, thus avoiding the potential intervention locality violation. We want to submit here the idea that no such flavor is to be associated with the *smuggling* operation. As mentioned above, the fact that a potential locality violation is directly overcome through this movement operation is in fact a side effect. The crucial factor is presence of (a component of) the passive voice with the property of attracting movement of a chunk of the verb phrase. If the analysis for Romance causatives of the Italian type proposed in the previous sections is on the right track, it clearly indicates that operations moving chunks of verb phrases are widespread in grammar independently of any locality issue. Properties of different

voices are at stake as well as properties of the verbal spine and the overall functional structure, which give rise to derivations that are necessarily in compliance with the locality principle and satisfy the basic labeling requirement. In passive, much as in Romance causatives of the Italian type, the moved constituent is a chunk of the verb phrase. However, it is only in passive that movement of the internal argument takes place from the *smuggled* landing site position of the moved verbal constituent, due to the Case properties of structures with passive morphology. No such movement occurs in causatives, as Case properties are different in these structures. Hence, there is no direct link between movement of a chunk of the verb phrase and the need to save the structure from a violation of locality provoked by movement of an internal argument across an external argument. There is no movement of the internal argument in causatives, but there is movement of a chunk of the verb phrase containing (at least) the verb and the internal argument. Hence, movement of a portion of the verb phrase may be independent of the occurrence of subsequent movement of the internal argument, so that the criticism of a look-ahead flavor in *smuggling* is not justified. If the line of analysis proposed in the previous sections is really sustainable, it shows that this type of derivation is fairly widespread, which, according to the proposal developed here, is in turn partly the consequence of the labeling requirement.[24]

4.2 Related considerations from acquisition

A recent interesting result from acquisition has indicated that Italian-speaking children seem to show an early access, possibly a preference, for a type of passive including the causative construction from their earliest stages of development. The structure at issue is illustrated by examples like the following:

(33) *Il   bambino   si   fa   pettinare   dalla   mamma*
     the   child   SI-cl   make   (to) comb   by the   mum
     'The child makes himself comb by the mum'

For reasons of space neither a detailed description of this construction nor a discussion of the relevant acquisition data can be provided here (see Belletti and Guasti 2015, chapter 4; Manetti and Belletti 2015; Belletti 2016, Belletti

2017; Belletti and Costa 2015 for detailed presentation). I wish to focus on one aspect of these results instead, the earliness and possibly the preference for a type of passive, which looks intuitively and pre-theoretically rather complex. It looks more complex than e.g. a copular passive for at least the following intuitive reasons: it includes a causative construction, and an anaphor binding dependency between the (derived) subject and reflexive clitic *si*, combined with the characteristic dependencies of passives, i.e. the A-dependency between the raised internal argument and its copy and, finally, the realization of the external argument as a *by*-phrase. As has already been mentioned, the latter dependencies are also present in the periphrastic passive with the auxiliaries *essere* (be) or *venire* (come), which are both possible in Italian (with *eventive* verbs), as illustrated in (34):

(34) a. *Il   bambino   è   pettinato   dalla   mamma*
        the   child   is   combed   by the   mum
     b. *Il   bambino   viene   pettinato   dalla   mamma*
        the   child   comes   combed   by the   mum
     'The child is combed by the mum'

Hence the crucial role in the early access to the seemingly more complex passive in (33) must be played by the presence of the reflexive binding relation and by the presence of the causative construction. Whereas it is known that children from relatively early ages (3;5) do have good mastery of Principle A, hence of anaphor binding, early access to the Romance causative construction of the Italian type is not known and it is intuitively somehow less expected. Although we cannot disentangle the respective role of anaphor binding and of the causative construction at the stage of our present knowledge[25], the fact that the presence of the causative construction does not make the structure more complex, but, if anything, it seems to make it less complex, is an important indication that the mechanisms involved in the derivation of causatives must be very basic mechanisms, and as such must be available early to the child. In the spirit of the discussion and analysis proposed here, some very basic computational mechanism has indeed been identified as being at play in the derivation of Romance causatives of the Italian type: *smuggling*, moving a chunk of the verb phrase. The ultimate generator of such computational

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24 Thus, depending on the active or passive voice, in simple sentences either the external argument DP moves (to Spec-TP, active) or the vP-chunk moves (to Spec of the relevant component of the passive voice).

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25 See the references quoted for some speculation based on experimental results from development; see also Belletti (2017) for a proposal on the further possible role of the reflexive in privileging causative passive as well, and for discussion that children's causative passive should indeed involve the *smuggling* operation along the lines discussed here.

mechanisms is the fundamental labeling requirement, which is an essential requirement to interpret structures at the interface.[26]

5 Conclusion

The main proposal of this article has been that the crucial engine triggering the derivation of Romance causatives of the Italian type may lie in the fundamental labeling requirement: the requirement is satisfied through movement of a chunk of the verb phrase of the *smuggling* type, probed by a criterial causative voice head. As a consequence, the remaining constituent is labeled DP. Furthermore, it has been proposed that the movement attracting property of the causative head may be parametrized, so that in some languages the attracted constituent is not a vP-chunk but rather a DP that is the external argument of the lexical verb phrase. This is the case of English type causatives and yields a structure in which compliance with the labeling requirement is obtained in a way closer, in that respect, to the situation of non-causative simple (active) clauses.

That the ultimate generator of the movement processes occurring in causatives of the Romance/Italian type is a fundamental requirement such as labeling, which is essential for the interpretation of syntactic structures at the interfaces, is consistent with the robust fact that indicates that, language after language, causatives are typically described as having a somewhat special yet well recognizable status, often involving displacement of constituents of different kinds, such as verbal constituents as in Romance and a DP as in English-type languages.

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[26] English-speaking children are known to have their earliest access to passive through the *get*-type passive (Crain 1991; Crain, Thornton, and Murasugi 2009), for which a similar analysis as the one developed in section 2 can be proposed. For a movement analysis of *get* passive see Haegeman (1985). For reasons of space this point cannot be developed here.

We are not yet in a position to conclude that access to active Romance causatives of the Italian type is in general rather early in development, as no reliable experimental evidence is available yet. The natural expectation is that it should be, and new experiments are under construction. We can also not yet say whether access to English type causatives should be equally early, provided that in Romance/Italian it indeed is. Some recent results (Santos, Gonçalves, and Hyams 2015) suggest that this is not the case, as English type causatives are present in EPortuguese and are acquired relatively late and dis-preferred by EPortuguese-speaking children. This suggests a possible intrinsic complexity in the raising operation that occurs from a reduced type of clausal complement (cf. structure [22]). See Belletti and Costa (2015) for some speculations along these lines in the context of a comparison between EPortuguese and Italian in the access to *si*-causative passive by young children.

According to the proposal developed here, these are the only types of displacements possible, and in fact required, given properties of the clause structure embedded under the causative voice and the requirement of labeling of syntactic structures. Causative is a fundamental voice, which yields a central interpretation that can be expressed in criterial terms, as in the proposal developed here. Minimal parametric differences in the attracting property of the causative voice yield the different types of causatives discussed, whose structural syntactic architecture is fundamentally homogeneous as is their resulting interpretive routine.

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Marcel den Dikken

Quantifier float and predicate inversion

1 The baseline: Quantifier float

The distribution of floating quantifiers is standardly taken to be a good indicator of the distribution of intermediate traces: floating quantifiers are typically licit only in positions immediately local to intermediate traces of moved constituents.[1] From this, it is customary to conclude that *the problems one can have with this computer* in (2) and (4) binds an intermediate trace in between the occupant of T (*could* and *to*, resp.) and *be* (see (11) for a sketch of the standard derivation). Let us take this to be correct, and use it as our baseline for the present investigation.

(1)   *All the problems one can have with this computer could be insurmountable.*

(2)   *The problems one can have with this computer could all be insurmountable.*

(3)   *They consider all the problems one can have with this computer to be insurmountable.*

(4)   *They consider the problems one can have with this computer to all be insurmountable.*

2 The puzzle: Predicate inversion and quantifier float do not mix

Predicate nominals can host the quantifier *all*, as in (5) and (6), where the noun phrases introduced by *all* as a whole serve as predicate of the copular or small clause.

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[1] From "stranding" approaches to quantifier float, such as Sportiche (1988), this follows straightforwardly (though such approaches have a hard time restricting the distribution of FQs to traces in specifier positions and excluding them from positions next to traces in complement positions). From "adverbial" approaches, it can be made to follow as well: see Doetjes (1992). For an overview of Q-float analyses, see Bobaljik (2003).

Studies in Generative Grammar

Elements of Comparative Syntax

Theory and Description

Edited by
Enoch O. Aboh
Eric Haeberli
Genoveva Puskás
Manuela Schönenberger

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tungsvollen Quellen
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This book is dedicated to Liliane Haegeman, a colleague, friend, and mentor, in appreciation of her extensive contribution to the field of comparative syntax.

Contents

Enoch O. Aboh, Eric Haeberli, Genoveva Puskás,
Manuela Schönenberger

Introduction

The starting point of this volume was the intention of the editors to publish a collection of articles in honour of Liliane Haegeman for her contribution to the field of comparative syntax. A small number of friends and colleagues were invited to contribute to this volume, and the outcome of this selection process, which, from a scientific point of view, was fairly random, provides an excellent testimony of the way in which the field of comparative generative syntax has developed from the beginning of Liliane Haegeman's academic career in the late 1970s to today. These developments are reflected in the empirical basis of generative theorizing as well as the theoretical issues that are addressed in current work, and they illustrate how "[i]n this new comparative syntax, careful study of empirical data takes a central position with a stimulating two-way interaction between theoretical developments and empirical study" (Haegeman 1997a: 1).

Since the emergence of generative grammar in the middle of the 20th century, its aim has been to provide an explanatory model of grammatical competence and thereby to gain a deeper understanding of the nature of the human language faculty. Initially, this aim was pursued by examining evidence from a very limited number of languages, with standard English playing the most prominent role. This empirical bias is shown for example in the contributions to the first two volumes of *Linguistic Inquiry* (1970, 1971). Leaving aside work focussing on phonology and morphology, we observe that nearly three fourths of all research papers dealing with transformational grammar contain data that are exclusively drawn from English. Similarly, among over 70 squibs published, only 9 contain data from a language other than English. This empirical focus on a single language can be justified by the complexity of the task of providing a complete account of a speaker's knowledge of that language, but also in view of identifying the properties of Universal Grammar (UG), the genetic endowment for language hypothesized within the generative framework. According to the 'poverty of the stimulus' argument, aspects of linguistic competence that cannot be derived from the language learner's input must be attributed to properties of UG. To identify such properties, evidence from a single language is arguably sufficient.

However, since the mid-70s, generative work has considerably expanded its empirical scope. Increasing attention has been paid to other languages not only to test earlier theoretical proposals made on the basis of English but also to gain a better understanding of what is common to all languages and what the