French Causatives : a Biclausal Account in LFG

Nicholas Yates (Université Libre de Bruxelles)

Proceedings of the LFG02 Conference National Technical University of Athens, Athens Miriam Butt and Tracy Holloway King (Editors) 2002 CSLI Publications http://csli-publications.stanford.edu/

Abstract

The aim of this paper is to question the well-established view in constraint based grammars on Romance causatives, i.e. that they are functionally monoclausal, as well as its most important corollary, that their lexical representation is underspecified with regard to argument structure (Alsina 1996, Abeillé, Godard & Sag 1998) that gets fully specified by merging with another predicate. This is the generally accepted view, even though it contradicts initial claims on lexical integrity. The discussion will rest upon a few problematic sentences of which the monoclausal theories give an unsatisfactory account. I argue that the monoclausality of causatives is only a surface (i.e. a c-structure) monoclausality. The 'merging effect' observed at the level of surface realisation, and the apparent extra arguments of the causative predicate will be accounted for by some other means. The idea is to resort to the previous conception of a biclausal f-structure, but with a more 'complex' use of structure sharing. I will mainly be concerned with the implementation of this concept in Lexical Functional Grammar (LFG) in this paper, but a short comparison with a similar Head-Driven Phrase Structure Grammar (HPSG) approach will support the idea that the proposal has some empirical relevance.

1 Introduction ¹

Romance causatives² have been extensively studied in the field of generative grammars for the last 30 years and, more specifically, during the last decade in constraint-based grammars. In the latter framework, there has been a rather wide agreement that Romance causative constructions are formed through some sort of merging of two lexical subcategorisation frames. This generally implies that the lexical entry of the causative verb is underspecified with regard to argument structure (Alsina 1996 for LFG, Abeillé et al. 1998 for HPSG) which will have to be syntactically fully specified by the addition of elements from another predicate's argument structure. Although this is an important departure on conceptual grounds from initial assumptions such as the 'Lexical Integrity Principle' (see Ackerman & Webelhuth 1997 for discussion), it is the view generally adopted in constraint based frameworks.

Let's review some of the basic facts about causatives by examining the following sentences:³

- (1) Pierre a fait courir **Paul**. Peter made Paul run.
- (2) Pierre a fait construire un bateau **à Paul**. Peter made Paul build a boat.
- (3) Pierre a fait construire un bateau **par Paul**. Peter had a boat built by Paul.
- (4) Pierre lui a fait écrire une lettre.Peter made him write a letter. / Peter had a letter written to him.
- (5) Pierre **lui** a fait écrire une lettre **par Marie**. Peter had a letter written to him by Mary.

¹the author wishes to thank Marc Dominicy, Fabienne Martin, Philip Miller and at least two anonymous reviewers for insightful comments.

²In this paper, I will only discuss French causatives. Many of the general assumptions made here hold for other Romance languages, although there are some notable differences (cf. Frank 1996)

³There are two types of constructions for causatives in Romance languages (cf Abeillé et al. 1998) The first one seems to be subject to some kind of merging of two subcategorisation frames ('Il **lui** a fait tuer un homme'). The second one, subject to variation in acceptability, is a classical control construction ('?Il **l'**a fait tuer un homme'). We will only concern ourselves with the first kind in this paper.

- (6) Pierre **lui** a fait écrire une lettre **à Paul**. Peter made him write a letter to Paul.
- (7) *Pierre **lui** a fait téléphoner **Marie**. Peter made Mary call him.
- (8) Pierre a fait téléphoner Marie à Paul. Peter made Mary call Paul.

The first three sentences show us the very basic facts about causatives in French. In simple terms, the causative predicate 'faire' (to do, to make) takes an infinitive verb as complement, and apparently shares its arguments with the embedded predicate's arguments. If the embedded verb is intransitive, its subject will be expressed as the causative's direct object. If the infinitive verb is transitive, its subject will be expressed either as an indirect à-object or as a par-phrase (the typical agent complement phrase in French). These are the possible functions that can be occupied by what has been called the 'causee' role.⁴ All other arguments keep their grammatical function but seem to be complements to the causative verb. This is supported by observed behaviour with regard to tough-movement, NP-ordering, extraction and upstairs cliticisation. But we will see that the constraints that appear after a closer look at sentences (4) through (8) reveal that the story is somewhat more complicated. But we will postpone comments on these until later on.

I will not dwell on the numerous facts that argue in favour of some sort of merging or dependence of the embedded infinitive verb (see, among others, Kayne 1975, Ruwet 1972, Tasmowski 1984, Burzio 1988). But it should be stressed that many of the claims for monoclausal structure are based on phrase-structural constraints like heavy-NP shift,... Since I keep the assumption that the surface realisation of French causatives (in our case, the c-structure) is monoclausal in nature, I assume that they will be accounted for in the same way here as in other theories. There are some specific behaviours of causatives, though, that do not seem to be explainable through phrase-structural configuration, but rather be dependant upon some internal lexical-structural constraint. These have generally been seen as the main evidence for the monoclausal representation in the constraint-based literature. This includes mainly upstairs cliticisation (Miller & Sag 1997) and functional relation changes of the embedded verb's arguments, from SUBJ to OBJ or OBJ_{dat} (Alsina 1996, Dalrymple & Zaenen 1996,...) I will argue that these phenomena are actually not uniformly pleading in favor of a monoclausal structure.

⁴There has been a lot of discussion regarding this notion of a 'causee' role, but I believe this to be irrelevant to the present discussion.

In derivational frameworks, they are easily accounted for. In Government & Binding (GB), the embedded VP is partially or completely destroyed in the process (Burzio, 1988). In the Relational Grammar (RG) framework, two phrases are merged in 'clausal union' (Fauconnier 1983). The derivational process will impose different constraints on NPs according to their initial relation to the embedded infinitive, whether they are 'deep' subjects or 'deep' dative objects.

This apparently leaves us with a straight alternative. Either we adopt the derivational view (which, of course, we don't want) and there is a structural difference between the initial subject or indirect object. The above examples then follow from general principles (θ -criterion,...). If, on the other hand we adopt the constraintbased view (and we will of course) and the monoclausal structure that comes with it. This, I consider to be an unsatisfactory alternative. I will try to show that it is possible to give an account that stays faithful to the basic assumptions of constraintbased grammars (maybe even more faithful than previous accounts) while having the same empirical coverage that the derivational theories can give.

2 A biclausal structure

In the present paper I challenge the general view by assuming that the internal structure of causatives in French is actually biclausal. In the LFG formalism, the obvious way of expressing this is by having a biclausal f-structure. The specificity of this kind of construction, namely complex predicates, will be that they make a much more 'complex' use of structure sharing. To express this in one 'lexical item', I give in figure 1 a very general template of what a lexical entry for 'faire' should look like.

Faire, V : Pred = 'faire' <SUBJ, VCOMP, OBJ, OBJ_[dat]> $(\uparrow X = \uparrow VCOMP X')$ $(\uparrow Y = \uparrow VCOMP Y')$... Figure 1: 'faire'

As hinted above, I will argue that the main pro-monoclausal arguments are actually not uniformly pleading in favour of a monoclausal structure. Let's have a closer look at the constraints on upstairs cliticisation and on the presence of two dative NPs that the examples (4) to (8) reveal. For Alsina (1992) & (1996) or Frank (1996), the best way to explain clitic climbing is by positing that the two predicate undergo some sort of predicate composition (merging or partial-merging) whereby the arguments of the embedded infinitive verb are added to the a-structure of the causative 'faire'. The resulting complex a-structure is then mapped onto a flat f-structure. I will not review the mechanisms for merging a-structures here since they are rather technical innovations of the standard LFG formalism and my aim is to argue that they are unnecessary. Indeed, it is difficult to account for the fact that there can sometimes be two $OBJ_{[dat]}^{5}$, as in example (6). This would appear to be in direct contradiction with the Coherence Principle (Bresnan 2001), unless one admits that they are different functions. For instance, on could stipulate that the first is an OBJ_{causee} while the second would be an $OBJ_{recipient/goal}$. But this would ignore a number of general facts about dative objects.

First of all, they can both be cliticised by 'lui', though there are certain restrictions here that we will consider below, and 'lui' is a strictly dative pronoun. So we can't escape the fact that there are two dative NPs subcategorised for by the same predicate if we decide for the argument composition view. And this would be a the unique and strictly construction-specific case in the French language.

What more, there seems to be some semantic correspondence between the subcategorisation frames of the non-causative and the causative versions of faire. For the sake of semantic generalisation, one would want to posit some relation between both kind of predicates by saying, for instance, that the dative object of the causative 'faire' is in fact its recipient/goal θ -role :

(9) Il a fait un gâteau **à Paul**. \rightarrow Il **lui** a fait un gâteau.

These observations lead me to consider the option of admitting two different θ -roles that happen to be realised by the same preposition, but that can nonetheless co-occur in the subcategorisation frame of one (complex) predicate, as a rather *ad hoc* solution.

I believe the strongest argument in favour of a biclausal approach, comes from the observation that both dative objects are subject to different constraints regarding cliticisation. Some of these are, to my knowledge, unaccounted for in the earlier literature on causatives in constraint-based frameworks, though they are an important part of the discussion on the case in other frameworks like GB or RG.

⁵This would seem to be restricted to cases like example (6) above, where one of the à-objects is cliticised. But, with appropriate stress, sentences with two prepositional dative phrases appear to be acceptable : "Il a fait envoyer une lettre au président_{recipient/goal} à tous les enfants de sa classe_{causee}"

Let's return to our examples (4) to (8) above and start by examining sentence (4). When no prepositional phrase is present, the clitic 'lui' can stand either for the causee or the recipient/goal of 'écrire'. The sentence becomes unambiguous, of course, once one adds a prepositional phrase that stands for the causee as in (5) or (6). It is interesting to note that in (6), though both causee and recipient/goal are realised as dative NPs, the sentence is unambiguous. The clitic can only stand for the causee and the prepositional dative phrase can only stand for the recipient/goal of 'écrire'. In (7), the classical example by Kayne (1975), since the direct object 'Marie' would have to be the causee ('Téléphoner' is intransitive, so only the active causative 'faire_{1b}' is applicable), 'lui' could only be the recipient/goal, but strangely this sentence is very clearly ungrammatical although the non-clitic version (8) is perfectly acceptable.

These facts are generally not mentioned or not accounted for in the constraint based grammar literature. For instance, in the HPSG analysis of Abeillé et al. (1998), (4) would be an accepted sentence⁶ and they would have to resort to pragmatic factors to rule it out. In Alsina (1996), a footnote mentions a complex series of constraints on dative objects, but without going further into the matter.

The solution I am going to propose here draws on several earlier observations about French causatives. In their foundational work, Hyman & Zimmer (1976) noted that there are two basic semantic types of causatives :

- (10) Pierre a fait nettoyer les toilettes **au général**.Peter made the general clean the toilets.
- (11) Pierre a fait nettoyer les toilettes par le général.Peter had the toilets cleaned by the general.

In the first one (10), the causee (dative object) is considered to be the main volitional focus of the agent 'Pierre'. His purpose here is that the general, and no one else, would clean the toilets. In the second example (11), his aim seems to be mainly to get the toilets cleaned, be it by the general or anyone else. Alsina (1992) has shown this semantic distinction to be a very general cross-linguistic one. The two types of causatives have often been called the active and passive causative, respectively, because of the fact that the subcategorisation of the complex predicate seems to match that of the active or passive versions of the embedded infinitive

⁶See discussion about causatives in HPSG below.

verb. In some languages, like English, the embedded verb even bears the active or passive morphology alternatively, as can be seen in the translations of sentences (10) and (11).

Now, if we get back to our examples (4) to (8) and classify them according to this basic distinction we get the following results : (6) to (8) are active causatives, (5) is a passive causative and (4) is either. Strikingly, this classification matches exactly that of the sentences allowing cliticisation of the recipient/goal NP; when the causative is passive, the recipient/goal NP of the embedded infinitive verb can appear as a dative clitic on the causative verb.

How can a bi-clausal approach account for this. First, we want to have different entries for 'faire' in the lexicon. We will consider two basic distinctions between different types. On the one hand, we separate active from passive causatives. On the second hand, we want to keep the well known distinction between transitivesubcategorising and intransitive-subcategorising causative verbs. The latter can be considered to be a sub-distinction between active forms only, since, as mentioned above, the transitive-subcategorising form will realise the causee as a direct object and cannot, therefore, realise it as a prepositional par-phrase.

Second, since we want a bi-clausal f-structure, this means that we will have two local subcategorisation domains, one for the causative predicate and one for the embedded infinitive verb. To account for the merging effect, we have to use argument sharing. The crucial innovation I would like to propose here, is for the causative predicate only to have a limited number of slots for linking the embedded verb's arguments, i.e. at the most an OBJ and an OBJ_{dat}. As a result, some arguments of the infinitive verb will not be structure-shared. If we accept as a general principle of well-formedness (of sets of lexical entries) for causative predicates that they will link their objective grammatical functions (OBJ and OBJ_{dat}) to the highest available functions of the embedded lexical items, we obtain the three partial entries in figure 2. These are only a first approximation. A full coverage will probably require a more elaborate set of lexical entries.

I believe a short digression is in order here. The careful reader will have noticed that the entry for 'faire₂', i.e. the so-called 'passive' version of the causative, does not control any of its objects to the embedded subject as would be expected if it were a passive predicate. The functional equation refers to the embedded direct object. This is due to the fact that I consider the embedded VCOMP to be headed by an infinitive verb without subject, a sort of verb form that is only half way through

$Faire_{1a}, V:$	Pred = 'faire' \langle SUBJ, VCOMP, OBJ, OBJ _[dat] \rangle
	$(\uparrow OBJ = \uparrow VCOMP \ OBJ)$
	$(\uparrow OBJ_{[dat]} = \uparrow VCOMP \ SUBJ)$

- Faire_{1b}, V : Pred = 'faire' <SUBJ, VCOMP, OBJ> ($\uparrow OBJ = \uparrow VCOMP \ SUBJ$)
- Faire₂, V : Pred = 'faire' <SUBJ, VCOMP, OBJ, OBJ_[dat]> ($\uparrow OBJ = \uparrow VCOMP \ OBJ$) ($\uparrow OBJ_{[dat]} = \uparrow VCOMP \ OBJ_{[dat]}$)

Figure 2: lexical entries

its transformation into a passive form.⁷ The subject has been removed, allowing the agent role to be optionally mapped onto an oblique par-phrase, but the object has not been raised to subject position. This of course is a rather bold statement since it directly contradicts the subject-condition of LFG (Bresnan 2001), but I believe a number of facts support the idea. Some GB authors (Zubizaretta 1985, Burzio 1986) consider the embedded infinitive verbs of French causative constructions not to be fully-formed words. One of the reasons for positing this is that the embedded so-called passive verb cannot have passive morphology, as is the case in its English counterpart, while standard VCOMP constructions would accept it :

- (12) *Il a fait être envoyé une lettre par Marie. He had a letter sent by Mary.
- (13) Il a voulu être envoyé à Paris pour ses études. He wanted to be sent to Paris for his studies.

Another point of interest is the fact that the infinitive can, in some cases, appear in a context where there is no possible binder for its subject. This is also a unique feature in infinitive constructions. This is the case for the second reading of the following sentence :

(14) Pierre lui a fait téléphoner.

Peter made him phone (someone). / Peter had (someone) phone him.

⁷I am speaking in 'derivational' terms for the sake of clarity, but the above has to be understood as referring to some declarative system of constraints organising the lexicon. I leave this matter open here.

(15) *J'ai convaincu de lui téléphoner.

I convinced (someone) to phone him.

Considering the embedded verb to be some sort of not fully-formed word in which the patient role has not been promoted to subject, I believe, is quite satisfactory from a purely intuitive point of view. It seems to be coherent with the fact that it can't realise its own clitics. Unfortunately, I won't pursue the subject any deeper here, for lack of space, but it should be noticed that the analysis sketched above does not crucially rely on this assumption. We could replace the entry for 'faire₂' by the entry given in figure 3 and make the necessary adjustments to the other entries regarding the constraint on passive, while keeping most of the assumptions argued for in this paper.

Faire_{2'}, V: Pred = 'faire' <SUBJ, VCOMP, OBJ, OBJ_[dat]> ($\uparrow OBJ = \uparrow VCOMP SUBJ$) ($\uparrow A-OBJ = \uparrow VCOMP OBJ_{[dat]}$) ($\uparrow VCOMP PASSIVE = +$)

Figure 3: 'faire_{2'}'

We do, however, loose a convenient way of explaining the following sentence from Tasmowski (1984):

(16) Il lui a fait parvenir la lettre.He made the letter reach him.

Compare the above sentence to example (7). In line with what has been said above, I consider that unaccusative verbs can be introduced in causative constructions as subcategorising for a direct object only. This would explain why they can be subcategorised for by 'faire₂'.

I give in figures 4 and 5, two f-structures to illustrate how our lexical entries interact with their embedded predicates in accordance with for the facts observed in sentences (4) to (8).

As we see, not all of the embedded verb's arguments are controlled by the causative predicate's arguments. Typically, a par-phrase will only be subcate-gorised for by the embedded verb, as well as the dative objects of ditransitive verbs

(6') 'Pierre lui fait écrire une lettre à Paul.'

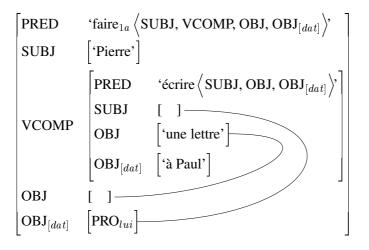


Figure 4: f-structure of an active causative

(5') 'Pierre lui fait écrire une lettre par Marie.'

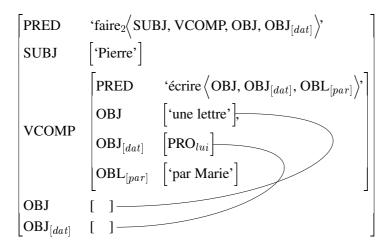


Figure 5: f-structure of a passive causative

$$\begin{array}{rcl} \mathbf{VP} & \rightarrow & \mathbf{V} + & \mathbf{V} + & (\mathbf{NP}) + & (\mathbf{PP}) \\ & (\uparrow = \downarrow) & (\uparrow VCOMP = \downarrow) & (\uparrow OBJ = \downarrow) & (\uparrow OBJ_{[dat]} = \downarrow / \\ & \uparrow VCOMP & OBJ_{[par]} = \downarrow) \\ & + & (\mathbf{PP}) \\ & \uparrow VCOMP & OBJ_{[dat]} = \downarrow) \end{array}$$

Figure 6: c-structure rule

appearing as complements of faire_{1a}. We can now explain the cliticisation facts in a very straightforward manner : Only the functional relations directly subcategorised for by the causative predicate can appear as clitics. This seems trivial, we simply use general rules about clitics in French, nothing else. But it does actually cover all the constraints observed in the previous sentences as the reader can check for him- or herself.

But then, there is still the so-called merging effect observed at the surface level. The fact that in surface realisations, both predicates really appear to have merged their argument structures. The phrase-structural constraints appear not to discriminate between arguments depending on their level of subcategorisation. For instance, the linear order of complements seems shows that they are all part of one single syntactic domain. Although there is a rather strict order for complements in French, this order can be modified in order to emphasize some argument :

(17) Pierre a fait nettoyer par le général toutes les toilettes des casernes.Peter had the general clean all the toilets in the barracks.

Examples like this one clearly show that there is, at some point, a structural mismatch between an embedded and a flat representation. Since I have argued that this mismatch should not be between a- and f-structure, it has to be between f- and c-structure. So we would probably want to have a complex predicate specific phrase structure rule or set of rules to allow for the correct constructions. This would be something like figure 6.

In definitive, many other phenomena observed about causatives will find the same resolution as in the monoclausal accounts because either they rely on phrasestructural constraints and I have not brought any fundamental change in this area, or they rely on functional relations, but it turns out that they generally affect precisely the functions that are shared by both arguments. This is, for instance, the case with tough-extraction :

(18) Ce poisson est difficile à faire manger à Paul. \approx This fish is tough to get Paul to eat.

One apparently problematic case, I believe, rests on a misjudgement. It has sometimes been claimed that the par-phrase could be cliticised by 'lui', in support of the monoclausal theory (Kinouchi 1999):

- (19) Il a fait détruire la ville par/?à Jean.He had the city destroyed by Jean/He made Jean destroy the city.
- (20) Il lui a fait détruire la ville.

The active version of (19) is a little awkward because it seems to imply that the important information conveyed by the sentence is that something was done to 'Jean', rather than a city having been destroyed. Kinouchi believes that the absence of awkwardness in the cliticised version implies that 'lui' stands for 'par Jean'. But a closer look at the active version of (19) shows us that it is not that awkward once we understand that it conveys a pragmatically enriched meaning, something like 'He got Jean so mad that he went out and destroyed the whole city!' Strikingly, the cliticised version with 'lui' can only be read with this meaning. For some reason, the presence of the clitic pronoun simply renders it directly accessible. I believe, therefore, we can safely discard the idea that in one very specific case in French (i.e. only causative constructions) a par-phrase can be replaced by a dative clitic.

3 A Short Comparison with HPSG

To support the idea that the previous proposal stems out of empirical rather than purely formal considerations, I will show how the same general ideas can be applied in another constraint-based framework, namely Head-Driven Phrase Structure Grammar (Pollard & Sag, 1994) to produce the same effect.

It is quite difficult to state one-to-one correspondences between different levels of representation in separate grammatical frameworks, because the information is not distributed uniformly at each level. In the case of interest, though, I believe the features containing the relevant information in HPSG are the argument structure list (ARG-ST) and the valence lists (SUBJ and COMPS). The valence lists contain a number of signs (words or phrases) that get removed from the lists as they are syntactically realised through phrase structure rule. For instance, the COMPS feature of the mother in the HEAD-COMPLEMENT-RULE will have one less element on its COMPS list than its head-daughter. This is how the grammar checks that all and only the right complements are present in the syntax. So the COMPS feature contains information that is directly relevant to surface realisation (something like the equivalent of LFG's functional annotations to c-structure rules.)

ARG-ST, on the other hand is a strictly lexical feature reflecting the internal valence of the predicate. In earlier versions of HPSG, ARG-ST was simply the result of the concatenation of SUBJ and COMPS. The strict equivalence between ARG-ST and valence lists, known as the Argument Realisation Principle (Sag & Wasow 1999) has been rather widely abandoned afterwards. Recent studies (Manning & Sag 1998, Davis & Koenig 2000, Miller & Sag 1997,...) have gone in the way of loosening the tie because some phenomena seem to imply that the isomorphism is not that strong. It is argued that some elements can appear on the ARG-ST list while being absent from the valence lists (pro-drop arguments, clitics,...) and therefore, from phrase structure realisation.

Actually, the information carried by HPSG's ARG-ST is closer to that of LFG's f-structure than to it's a-structure. It is sort of the equivalent of the PRED value and the information carried by the grammatical function features (SUBJ, OBJ,...) It is no surprise then, that the dominant view on causatives in HPSG considers their ARG-ST to be flat and to contain all the arguments of both the causative and embedded predicate. This leads to the same problem as we have observed in the case of LFG approaches.

For Abeillé, Godard, & Sag (1998), causatives are complex predicate obtained through the process of argument composition. They distinguish two types of argument composition : a-composition (where the main predicate adds the embedded predicate's ARG-ST list to its own, as is the case with tense auxiliaries) and c-composition (where only the COMPS list of the embedded predicate is added, as is the case with causatives.⁸) They assume, following Miller & Sag 1997, clitics to be lexical affixes on verbs which are present on the ARG-ST list but not on the COMPS list. Since the dative pronoun in (7) is an element of the embedded predi-

⁸In this approach, the embedded subject only shares its index with the dative NP of active transitive causative constructions. This is therefore the only assumed relational change.

cate's COMPS list,⁹ it will be merged onto the ARG-ST of the causative predicate, therefore allowing it to be cliticised. Following the same pattern, since both dative NPs in (6) are present on the ARG-ST of the causative verb, both are predicted to be cliticisable. One can easily see that to account for this we need to be able to distinguish between dative NPs originating on the upper verb's or on the lower verb' ARG-ST. But since the resulting ARG-ST is flat, this is no longer possible.

Now let's apply the same ideas as above to the present framework. We want a biclausal representation at the lexical level to allow us to distinguish between arguments of the causative verb, arguments of the embedded verb and shared arguments. The obvious way of doing this is by simply eliminating the argument composition. Each predicate will have its own ARG-ST fully determined in the lexicon. We also want to allow ourselves the possibility of linking the accusative and dative arguments of the causative to arguments of the embedded verb. This will be done by linking constraints specified in the lexical entries, just as we did in LFG. And finally, we want the complements of both predicate to 'mix' at phrase structure level to render the merging effect. As mentioned above, a good place to state phrase-structural constraints in HPSG is the valence lists. So I will propose that merging takes place in the COMPS list, namely, the causative predicate's COMPS list will be a concatenation of its own complements (i.e. the non-cliticised elements of its ARG-ST excepting the subject) and the COMPS list of the embedded verb. This takes the 'loosening' of the ARP a step further, giving the surface level of representation even more freedom from the lexical level.

An important difference, due to the general architecture of both frameworks, is that in this case, the so-called phrase-structural merging will have to be stated in the lexicon (albeit as an underspecified COMPS list). This is due to the will of classical HPSGers to maintain the number of syntactic rules to a strict minimum, but it is in no way a formal necessity. One could also state construction-specific syntactic rules to account for the COMPS merging. I give the corresponding lexical entries for 'faire_{1b}' and 'faire₂' in HPSG in figures 7 and 8 and leave it to the reader to verify that they will have the same behaviour as their LFG counterparts.

⁹Abeillé et al. state as a constraint that embedded predicates have to be non reduced. This is necessary to block downstairs cliticisation in c-composition constructions ('*II a fait le prendre à Paul.'). I assume the same constraint (see Abeillé et al. 1998 for technical details.)

$$\begin{bmatrix} CAUS-FAIRE-ACT-TRANS \\ COMPS & \left< \squareV, \squareV P_{[acc]}, \squareNP_{i}[dat], \left(\squareNP_{[dat]} \right) \right \\ ARG-ST & \left< NP, \squareV \begin{bmatrix} SUBJ & \left< NP_{i} \right \\ COMPS & \left< \square, \left(\squareNP_{[acc]}, \squareNP_{i} \right) \right \\ COMPS & \left< \square, \left(\squareNP_{[acc]}, \squareNP_{i}[dat] \right) \right \end{bmatrix}, \squareNP_{[acc]}, \squareNP_{i}[dat] \right \\ \end{bmatrix}$$

Figure 7: 'Faire_{1a}' - HPSG

$$\begin{bmatrix} CAUS-FAIRE-PASS \\ COMPS & \left< \squareV, \squareV \begin{bmatrix} acc \end{bmatrix}, \squareNP \begin{bmatrix} dat \end{bmatrix}, \left< (\squareNP \begin{bmatrix} par \end{bmatrix}) \right> \\ ARG-ST & \left< NP, \squareV \begin{bmatrix} SUBJ & \langle \rangle \\ COMPS & \left< \square, \square, \left(\squareNP \begin{bmatrix} par \end{bmatrix} \right) \right> \end{bmatrix}, \squareNP \begin{bmatrix} acc \end{bmatrix}, \squareNP \begin{bmatrix} dat \end{bmatrix} \right> \end{bmatrix}$$

Figure 8: 'Faire₂' - HPSG

4 Conclusion

In this paper, I have argued that the generally accepted monoclausal conception of causatives is not well suited to account for the series of constraints revealed in sentences (4) to (8) above. I have shown that these can be easily solved if one admits that both the causative 'faire' and the embedded infinitive have their own local subcategorisation frames and that some but – crucially – not all of the subcategorised functions are shared. The present account arguably requires less technical machinery and formal innovations than its predecessors. It can be summarised in a few general principles:

- The causative predicate 'faire' takes as arguments, a subject, a infinitive verb phrase and at the most two objects (a direct and an indirect object).
- It's objective arguments are structure-shared with the most highly ranked functional relations of the embedded infinitive verb.

- The complements of both predicate are joined in a single domain at phrase structure level (c-sructure). This amounts to the arguments of 'faire', plus the possible extra arguments of the embedded verb that are not controlled by any of the arguments of the causative predicate.
- Only the local grammatical functions of 'faire' can cliticise. The remaining grammatical functions on the infinitive verb $(OBJ_{[dat]} \text{ and } OBL_{[par]})$ will still surface in a flat c-structure as complements of the complex predicate.

To support the empirical argument behind this claim, I have compared the LFG treatment with a similar one in Head-driven Phrase Structure Grammar, where the same pre-formal considerations led me to switch the 'merging point' from the argument structure (ARG-ST) as in Abeillé et al. (1998), to a level of information content that has a closer tie to phrase-structural constraints, namely the COMPS feature.

This paper presents a rather general approach, which needs to be refined by the design of a much more elaborate set of lexical entries. It does not cover more complex case, where unspecified objects have been removed for instance. Constrasts in behaviour between unaccusative and unergative verbs also need more indepth analysis. But I believe the paper makes one point at least, that is that the biclausal approach to French causatives may have been somewhat underestimated and hastily discarded.

References

- ABEILLE, A., D. GODARD, I. SAG (1998) Two kinds of composition in French complex predicates. In E. Hinrichs, T. Nakazawa & A. Kathol, eds. *Complex Predicates in Nonderivational Syntax*. New York:Academic Press. 1-41.
- ACKERMAN, F. & G. WEBELHUTH (1997) The Composition of Discontinuous Predicates: Lexical or Syntactic.
- ALSINA, A. (1992). On the Argument structure of causatives. *Linguistic Inquiry*. 23(4). 517-555.
- ALSINA, A. (1996) *The role of argument structure in syntax: Evidence from Romance*, Stanford:CSLI publications.
- BRESNAN, J (2001) Lexical Functional Syntax. Oxford: Blackwell.
- BURZIO, L. (1986) Italian Syntax. Dordrecht: Reidel.

- DAVIS, A. & P.-J. KOENIG (2000) Linking as constraints on word classes in a hierarchichal lexicon. *Language*. 76. 56-91.
- FAUCONIER, G. (1983) Generalized Union. In L. Tasmowski & D. Willems, eds. *Problems in Syntax*. New York: Plenum. 159-229.
- FRANK, A. (1996) A note on complex predicate formation. In M. Butt & T. H. King, eds. On-line proceedings of the first LFG conference. http://www-csli.stanford.edu/plublications/LFG1/
- HYMAN, L. & K. ZIMMER (1976) Embedded Topic. In C. N. Li, ed. *Subject* and Topic. New York: Academic Press. 189-211.
- KAYNE, R. (1975) *French Syntax: the transformational cycle*. Cambridge, MA: The MIT Press.
- KINOUCHI, Y. (1999) Cas syntaxique et cas sémantique en français et en japonais: Quelques remarques sur la Grammaire Relationnelle. Ph. D. Dissertation, Université de Paris VIII.
- MANNING, C. & SAG, I. (1995). Dissociation between Argument Structure and Grammatical Relations. In G. Webelhuth, J.P. Koenig & A. Kathol, eds. *Lexical and Constructional Aspects of Linguistic Explanation*. Standford: CSLI Publications. 63-78.
- MILLER, P. & I. SAG (1997) French clitic movement without clitics or movement. *Natural Language and Linguistic Theory* 15, 573-639.
- POLLARD, C. & SAG, I. (1994). *Head-Driven Phrase Structure Grammar*. Chicago: University of Chicago Press and Stanford: CSLI Publications.
- RUWET, N. (1972) *Théories syntaxiques et syntaxe du français*. Paris: Ed. du Seuil.
- SAG, I. & WASOW, T. (1999). Syntactic Theory: A Formal Introduction. Stanford: CSLI Publications. TASMOWSKI, L. (1984) ?*Lui faire téléphoner quelqu'un d'autre: une stratégie?. *LinguisticæInvestigations* 8.2. 403-427.
- ZAENEN, A. & M. DALRYMPLE (1996) Les Verbes causatifs "polymorphiques": les prédicats complexes en français. *Langages* 30. 79-95.
- ZUBIZARETTA, M. L. (1985). The relation between Morphophonology and Morphosyntax: The Case of Romance Causatives. *Linguistic Inquiry* 16.2. 247-289.