The Complementation of Raising and Control Verbs in Mauritian

Fabiola Henri & Frédéric Laurens*

1   Introduction

This paper reviews the categorial status of the complement of raising and control predicates and provides another line of argument in favor of a phrasal analysis (Bresnan, 1982) based on data from Mauritian, a French-based Creole. In particular, we show that clauses and complements of raising and control predicates can be distinguished based on morphological and syntactic properties available in the language. Mauritian shows three patterns of complementation occurring with raising and control predicates. The first two involve complements with an unexpressed subject whose interpretation is made possible by the properties of the raising or control predicate (1-a). These types of complements constitute the most widespread pattern of complementation associated with raising and control predicates in Mauritian (1-b)-(1-c). Interestingly, these complements do not show clausal properties.

(1)   a.   John wants [to go].
       b.   Zan le   [ale].
             John want.SF [go]
             John wants to go.
       c.   Zan inn kontign   [aprann].
             John PERF continue.SF study
             John has continued to study.

The second pattern of complementation is found with modal verbs, a particular type of raising verb (2). Unlike other raising and control predicates, they allow for complements marked by TMA markers.

(2)   Zan paret   inn vini.
       John seem.SF PERF come.LF
       John seems to have come.

The third pattern of complementation is found with a small class of control verbs expressing intentions (3). These verbs select for complements marked by the comple-

mentizer *pou*. The complement itself can have an optional pronominal subject. Control with overt pronouns has been observed in several languages like for example in Serbo-Croatian (Zec, 1987), Halkomelem Salish (Hukari and Levine, 1995) or Persian (Karimi, 2008) to name but a few. This is expected given the anaphoric nature of controlled arguments.

(3)   Zan$_i$ pans   pou   (li$_i$) vini.
       John think.SF COMP 3SG come.LF
       John thinks about coming.

From a theoretical point of view, Mauritian data provide a strong support for a categorial distinction between clauses on one side and complements of raising and control predicates on the other, in particular complements which have often been analyzed as clauses (§(3)). The distinction is motivated both syntactically and morphologically (§2). And because Mauritian allows for both verbless clauses and subjectless clauses, neither a small clause analysis nor an analysis based on the presence or absence of a subject constituent will be sufficient to capture the difference between clauses and non-clauses (especially so-called open complements (Bresnan, 1982)). Instead, we show that the difference between clausal complements and the complements of raising and control verbs can elegantly be captured within a constructional-based view (Sag, 2010) and a theory of marking (Tseng, 2001).

sectionRaising and control in a cross-linguistic perspective

In languages such as English or French, raising and control verbs can be distinguished from other verb types on the basis of the form of their complement. Control verbs have an infinitival complement while raising verbs have either an infinitival complement or a non-verbal predicative complement.

Several analyses of the complementation of raising and control verbs have been proposed. They roughly fall into three categories. Complements of raising and control verbs have been either analyzed as clauses (Chomsky, 1981), small clauses (Stowell, 1981, 1983) or non-clausal open complements (Bresnan, 1982; Pollard and Sag, 1994). The arguments for each of these analyses rely on the relative importance and form given to (I) a theory of the syntax-semantics interface, (II) a theory of locality of subcategorization, and (III) a theory of constituency.

The desire for a strict isomorphism between syntactic and semantic representations is the main claim behind the clausal analysis. Since complements of control and raising verbs convey sorts of meanings which are otherwise conveyed by clauses (i.e. propositions, questions or outcomes), they should be analyzed as clauses whenever possible. The small clause analysis is concerned with locality of subcategorization and tries to maintain a strict isomorphism at the same time. It successfully accounts for grammaticality contrasts such as (4) which can only be modeled successfully if the subcategorizing verb has access to the category of its complement (here a NP/DP).

(4)   a.   I expect that island *(to be) a good vacation spot.
       b.   I consider that island (to be) a good vacation spot.

The open complement analysis is concerned with constituency and locality of subcategorization and explicitly rejects strict isomorphism as a result. One of the arguments of Bresnan (1982) was the fact that a sequence of two complements in the case

of object raising and control predicates doesn't form a constituent as can be shown with heavy NP shift in English (5).

(5)   I will consider [to be fools] in the weeks ahead [all those who drop this course] .

We will show that while Mauritian data can be brought in accordance with the open complement analysis, both morphological data on the control or raising verb and the existence of genuine verbless clauses put up a big challenge for both the clause and small clause analysis.

2   Constraints on verb forms

Mauritian verbs exhibit a paradigm with two cells, the short form and the long form respectively (henceforth SF and LF), with 30% showing a syncretic form. These two forms have been described as expressing a rather complex inflectional system (Henri, 2010; Bonami and Henri, 2010).

SHORT FORM	LONG FORM	TRANSLATION
pans	panse	*to think*
kontign	kontigne	*to continue*
vinn	vini	*to come*
konn	kone	*to know*
briye	briy	*to glow*
frize	friz	*to curl*
vande	vann	*to sell*
fane	fann	*to spread*

Table 1: Alternating verbs

SYNCRETIC FORM	TRANSLATION
le	*to want*
expekt	*to expect*
fer	*to make*
paret	*to seem*
briye	*to mix*
friz	*to freeze*
fann	*to chop/split*

Table 2: Non-alternating verbs

Obviously, phonology alone is not sufficient to explain the alternation facts since verbs like *briye* 'to glow' vs *briye* 'to mix' or *fann* 'to split' vs *fann* 'to spread' differ morphologically with respect to alternation although they show an identical phonological LF or SF respectively. But more interestingly, verb form alternation is an exponent of a systematic morphosyntactic distinction in the language. Unlike French, its superstrate, Mauritian verbs neither inflect for tense, mood and aspect nor for person, number and

gender. Thus the finiteness distinction available in languages such as French or English is non-existent in Mauritian. As a result, there is no variation in form associated to the function of the verb, as exemplified by the verb *sante* in (6).

(6)   a.   [Zan sante]. (Root clause)
             John sing.LF
             'John sings.'
       b.   Zan kontign   [sante]. (Complement of a raising verb)
             John continue.SF sing.LF
             'John continues to sing.'
       c.   Zan le   [sante]. (Complement of a control verb)
             John want.SF sing.LF
             'John wants to sing.'
       d.   Zan kapav [sante]. (Complement of a modal verb)
             Zan can.SF sing.LF
             'John can sing.'

However, verb form is sensitive to phrase-structural contexts: As shown in the following examples, the SF appears when the verb is followed by a canonical non-clausal complement.

(7)   a.   Mari inn { trouv | *trouve } so   mama.
             Mari PERF { find.SF | find.LF } 3SG.POSS mother
             'Mary has found her mother.'
       b.   Mari pe   { asiz | *asize } lor sez.
             Mary PROG { sit.SF | sit.LF } on chair
             'Mary is sitting on a chair.'
       c.   Mari ti   { res | *reste   } malad.
             Mary PST { remain.SF | remain.LF } sick
             'Mary remained sick.'

Note also that Mauritian, like Italian or Chichewa, is a surface unaccusativity language in that the argument of an intransitive verb like *arive* can appear overtly in the object position in surface constituent structure (Bresnan and Zaenen, 1990). Interestingly, these arguments trigger the SF, thus arguing that they are analyzed as complements (8-a). Adjuncts on the other hand do not trigger the SF (8-b).

(8)   a.   Inn { ariv | *arive   } enn aksidan.
             PERF { happen.SF | happen.LF } IND accident
             'An accident has happened.'
       b.   Mari ti   { *vinn | vini   } yer.
             Mary PST { come.SF | come.LF } yesterday
             'Mary came yesterday.'

The LF appears when the verb has zero (9-a) or an extracted complement (9-b) or when it is immediately followed by a clausal complement (9-c).

(9)   a.   Mari ti   { *vinn | vini   }.
             Mary PST { come.SF | come.LF }

'*Mary came.*'
b. Ki   Mari inn { *trouv | *trouve }?
What Mary PERF { see.SF | see.LF }
'*What did Mary see?.*'
c. Mari { *trouv | trouve } ki   so   mama pa bien.
Mari { find.SF | find.LF } that 3SG.POSS mother not well
'*Mary finds that her mother does not look well.*'

The relative order of non-clausal and clausal complements is crucial. For instance, if a verb has both a phrasal and a clausal complement, adjacency of the phrasal complement to the verb triggers the SF. On the other hand, when the phrasal complement is not adjacent to the verb, the LF surfaces (10-b).

(10)   a. Mari ti   { demann | *demande } ar tou   dimounn kiler   la.
           Mary PST { ask.SF | ask.LF   } to every people   what_time now
           '*Mary asked everybody what time it was.*'
        b. Mari ti   { *demann | demande } kiler   la   ar tou   dimounn.
           Mary PST { ask.SF | ask.LF   } what_time now to every people
           '*Mary asked everybody what time it was.*'

Finally, verb form alternation is also sensitive to a specific discourse phenomenon. If the verb carries Verum Focus, it has to be a LF, irrespective of whether it is followed by a complement or not (11-b).

(11)   a. Mo pe   al   kwi   kari poul   parski Zan kontan manz kari
           1SG PROG go.LF cook.SF curry chicken because John love   eat.SF curry
           poul.
           chicken
           '*I am going to cook chicken curry because John likes to eat chicken curry.*'
        b. Be non. Zan pa MANZE kari poul.
           Well no. John not eat.LF curry chicken
           '*Well no. John doesn't* EAT *chicken curry.*'

The morphological property of Mauritian verbs provides a diagnostic for the categorial distinction between clauses and non-clauses. Interestingly, this diagnostic is not internal to the complement but directly involves the subcategorizing verb.

3   Raising and control verbs

Typical raising and control structures can be distinguished at least on the basis of semantic properties (Bresnan, 1982; Jackendoff and Culicover, 2003): unlike control verbs, raising verbs take one complement or subject which is not a semantic argument of this verb. Raising verbs differ from control verbs in that they allow for non-referential external arguments. Moreover, with raising verbs, the complement can be passivized without a change in meaning of the resulting clause.

From a syntactic point of view, raising and control verbs are not always distinguished but their complementation pattern can be divided into two classes: subject

raising or control verbs and object raising or control verbs (Pollard and Sag, 1994), a difference which is exemplified in (12) and (13) respectively.

(12) a. Zan kontign   sante.   (Subject raising verb)
John continue.SF sing.LF
'John continues to sing.'
 b. Zan pe   get   Mari dormi.   (Object raising verb)
John PROG watch.SF Mary sleep.LF
'John is watching Mary sleep.'

(13) a. Zan le   sante.   (Subject control verb)
John want.SF sing.LF
'John wants to sing.'
 b. Zan pe   anpes   Mari dormi.   (Object raising verb)
John PROG prevent.SF Mary sleep.LF
'John is preventing Mary from sleeping.'

Based on Pollard and Sag (1991) who provide a semantic classification of control verbs explaining their complementation patterns, we provide a similar classification for Mauritian for both raising and control verbs.

Perception verbs	santi, gete, tande, trouve, remarke …
	feel, see/look, hear, see, notice …
Aspectual verbs	kontigne, komanse, arete, …
	continue, start, stop, …
Attributive verbs	res, vinn, …
	remain, become, …
influence verbs	lese, …
	let, …
Modal verbs	paret, kapav, oredi, bizin, devet, dwatet.
	seem, can, should have, must, must, must

Table 3: Raising verb classes in Mauritian

influence verbs	forse, fer, demande, ankouraze, anpese, …
	force, do/make, ask, encourage, prevent, …
commitment verbs	promet, aksepte, seye, refize, swazir, deside, propoze, …
	promise, accept, try, refuse, choose, decide, propose, …
orientation verbs	le, anvi, kontan, expekt, espere, ale, …
	want, wish, love, expect, hope, go, …
cognitive verbs	krwar, panse, bliye, kone, …
	believe, think, forget, know, …

Table 4: Control verb classes

Some verbs which function as raising or control predicates can also take a clausal complement. In that case, the difference is directly seen on the form of the verb. When the verb has an open complement (14), the SF shows up. Alternatively, when the verb has a clausal complement, the LF appears (15).

(14) a. Zan { res | *reste   } { dormi | malad | enn bon profeser | dan
          John { remain.SF | remain.LF } { sleep.LF | sick | a   good teacher | in
          lalinn }.
          moon }
          John keeps {sleeping|on being sick|on being a good teacher|being in the
          moon}.

      b. Zan inn { sey | *seye } { dormi | malad }.
          John PERF { try.SF | try.LF } { sleep.LF|sick }
          John has tried {to sleep|to be sick}.

(15) a. { Trouve | *trouv }(ki) to   pa fer zefor.
          { see.LF | see.SF }   COMP 2SG NEG do.SF sports
          It feels that you don't make any efforts.

      b. Zan { panse | *pans   } (ki) mo malad.
          John { think.LF | think.SF } 1SG sick
          John thinks that I am sick}.

3.1   Clausal versus VP complements in Mauritian

The main diagnostic for clauses is that they do not trigger the SF. Since open comple-
ments do not trigger the LF, we argue in favor of a non-clausal analysis. In addition,
clauses show other properties which discriminate them from non-clauses. Open com-
plements never have a subject constituent (16-c) while clauses can (16-a)-(16-b).

(16) a. Zan ti pe   manze.
          John PST PROG eat.LF
          'John was eating.'

      b. Mo le   (ki) to 'nn ale   demin   sa ler la.
          1SG want.LF COMP 2SG PERF go.LF tomorrow DEM hour DET
          'I want you to have left tomorrow at that time.'

      c. *Mo konn   Mari danse.
          1SG know.SF Mary PERF   dance.LF

Clauses can have pro-drop subjects, both referential and nonreferential ones. How-
ever, the presence or absence of the complementizer *ki* has no impact on the gram-
maticality of subject drop. Structurally, *ki* clauses with subject-drop might look like
raising and control constructions, specially when the complementizer *ki* is dropped.
But they show a crucial difference: the main verb is LF when followed by a clause (17-b)
and SF when followed by a VP (17-c).

(17) a. Vann mang dan bazar.
          sell.SF mango in   market
          'Mangoes are sold at the market.'

      b. Mo kone   (ki) vann mang dan bazar.
          1SG know.LF COMP sell.SF mango in   market
          'I know that mangoes are sold at the market.'

      c. Mo konn   vann mang dan bazar.
          1SG know.SF sell.SF mango in   market
          'I know how to sell mangoes at the market.'

Clauses can also host TMA markers, whether in root or in complement clauses and can be introduced by the sometimes optional complementizer *ki* (18-a)-(18-b).

(18) a. Mo kone (ki) Zan inn ale.
    1SG know.LF COMP John PERF go.LF
    'I know that John has gone.'
  b. Mo kone (ki) ti vann mang dan bazar.
    1SG know.LF COMP PST sell.SF mango in market
    'I know that mangoes were sold at the market.'

Pou-marked complements are special in this respect. They can have a pronominal subject constituent but they pattern with open complements with respect to verb forms and TMA marking. While the complementizer *ki* is restricted to clauses ((19-a) versus (19-b)), this not true of the complementizer *pou* which is only found in VP complements ((20-a) versus (20-b)).

(19) a. Mo kone (ki) Zan inn ale.
    1SG know.LF COMP John PERF go.LF
    'I know that John has gone.'
  b. Zan$_i$ pans (*ki) li$_i$ vini.
    John think.SF COMP 3SG come.LF
    'John thinks about coming.'

(20) a. Mo kone (*pou) Zan inn ale.
    1SG know.LF COMP John PERF go.LF
    'I know that John has gone.'
  b. Zan$_i$ pans pou li$_i$ vini.
    John think.SF COMP 3SG come.LF
    'John thinks about coming.'

Henri and Abeillé (2007) show that there are constructions where the copula does not appear in Mauritian. In fact, the copula appears only in extracted contexts. Based on the behavior of TMA markers and negation, they show that these constructions are better accounted for as verbless constructions instead of resorting to an empty copula. These verbless clauses provide an additional cue to our argument. The main verb taking an embedded clause is insensitive to the category of its complement contrary to control and raising which constrain the type of category of their complement.

(21) a. Mo kone (ki) Zan inn tonbe.
    1SG know.LF COMP John PERF fall.LF
    'I know that John has fallen.'
  b. Mo kone (ki) Zan deor.
    1SG know.LF COMP John outside
    'I know that John is outside.'

(22) a. Mo'nn anpes Zan tonbe.
    1SG'PERF prevent.SF John fall.LF
    'I prevented John from falling.'
  b. *Mo'nn anpes Zan deor.
    1SG'PERF prevent.SF John outside

3.2   Bare VP complements vs *Pou* complements

So far, we have examined bare VP complements of raising and control verbs. They differ from clauses in that they can neither host TMA markers, nor can they have a subject phrase nor be introduced by the complementizer *ki*. There is a particular class of control verbs, which we have dubbed intention verbs that select a VP complement introduced by the complementizer *pou*.

(23)   a.   Zan { pans | *panse } pou vini.
            John { think.SF | think.LF } COMP come.
            'John thinks about coming.'
       b.   *Zan { pans | panse   } ti   pou vini.
            John { think.SF | think.LF } PST COMP come.
       c.   *Zan { pans | panse   } pou pe   vini.
            John { think.SF | think.LF } COMP PROG come.

Like bare VP complements, they trigger the SF of the verb and do not allow for TMA marking. But more interestingly, they allow for an optional controlled pronominal subject. The fact that it needs to be coreferent to the subject of the main verb supports a control analysis. *Pou* here is truly a complementizer rather than a preposition or the irrealis marker. Unlike the irrealis marker (25-a), the complementizer is linearized before the subject and negation (24-a).

(24)   a.   Zan pans   pou (li) pa vini.
            John think.SF COMP (3sg) NEG come.LF
            'John thinks that he will not come.'
       b.   *Zan pans   pa pou (li) vini.
            John think.SF NEG COMP (3sg) come.LF
            'John thinks that he will not come.'

(25)   a.   Zan panse   ki   li pa pou vini.
            John think.LF COMP 3SG NEG IRR come.LF
            'John thinks about not coming.'
       b.   *Zan panse   ki   li pou pa vini.
            John think.LF COMP 3SG IRR NEG come.LF
            'John thinks about not coming.'

It is not a preposition either since the VP cannot be pronominalized as *pou sa* (26).

(26)   Zan pans   (*pou) sa.
       Zan think.SF PREP   DEM
       John thinks so (=that he will come).

Note also that *pou* shares with the complementizer *ki* the ability of being sometimes optional (27-a). For instance, it seems that when the VP is negated, *pou* is obligatory (27-b). It is important to note that the presence of a subject constituent is only possible if the complementizer *pou* is present too (27-c).

(27)   a.   Mo'nn   pans   (pou)   vinn   pran   to   nouvel.
            1SG'PERF think.SF come.SF take.SF 3SG.POSS news

I thought about coming to catch up with you.

b. Zan pans   *(pou) pa   vini.
   John think.SF COMP (3sg) NEG come.LF
   'John thinks that he will not come.'

c. Zan pans   *(pou) li   vini.
   John think.SF COMP (3sg) come.LF
   'John thinks that he will come.'

4   Modal verbs

Modal verbs form a peculiar class of raising verbs and constitute a closed class of morphologically non-alternating verbs. Their distributional properties argue in favor of modals as verbs.

bizin	must (deontic, epistemic)
devet	must (deontic, epistemic)
dwatet	must (deontic, epistemic)
kapav	can (deontic, epistemic)
oredi	should (deontic, epistemic)- always used with TMA marker *ti*
paret	seem

Table 5: Modals

Since they show a syncretic LF, there is no way of distinguishing them from their adverbial homonyms. In Mauritian, root clauses cannot be marked by the complementizer *ki*. If modals were adverbs, the grammaticality of examples (28) could not be explained. With forms which are unambiguously adverbs like *kapavet* (28-c), they are ungrammatical. The only analysis available then is an analysis in which the modals are heads. Since modals can also appear alone with subject constituents, we analyze them as modal verbs rather than modal adverbs.

(28)   a. Bizin   ki   sakenn zwe   so   rol.
         need.LF COMP each_one play.SF 3SG.POSS part
         Lit. *'(We) need that each one does his own job.'*

    b. Paret   ki   to pa pe bien.
         seem.LF COMP 2SG NEG PROG well
         'It seems that you are not well.'

    c. { Kapav | *kapavet } ki   Zan malad.
         { can.LF | perhaps } COMP John sick
         'John may be sick.'

Moreover, they can be coordinated with other modals but not with adverbs (compare (29-a) with (29-b). They also form a clause together with a subject (34) and can also appear as complements of control and raising verbs (31). Like other verbs they can host negation and so does the sequence following them (32).

(29)   a. Zan kapav e   bizin   travay.
         John can.SF and must.SF work.LF

'John can and must work.'

    b. *Zan kapavet e bizin travay.
    John perhaps and must.SF work.LF

(30)   a. Speaker A: To pou kapav vini? (You can come?)

        b. Speaker B: Mo panse   (ki)   mo kapav.
                 1SG think.LF COMP 1SG can.LF
        'I think that I can.'

(31)   Mo le   [kapav vini   demin   ]$_{VP}$.
       1SG want.SF [can.SF come.LF tomorrow]
       'I want to be able to come tomorrow.'

(32)   Mo bizin   pa paret   malad.
       1SG must.SF NEG seem.SF sick
       'I need to not seem sick.'

Modals show properties of subject raising verbs but they differ from other subject raising verbs in that they allow TMA markers to appear after them (33-b). Only the TMA marker *ti* can never follow a modal. Note that insertion of modals or preverbal adverbs do not alterate the strict ordering shown by TMA marking and different orderings are correlated with different scope relations. Modals form a single clause with the TMA markers which precede and follow them (33-b).

(33)   a. Zan ti les   (*pe) zot   bwar.
          John PST let.SF PROG 1SG.STF drink.LF
          'John let them drink.'

        b. Zan paret   (pe) les   zot bwar.
          John seem.SF PROG can.SF PROG sleep.LF
          'John seemed to let them drink.'

Although such property could argue in favor of a clausal analysis of complements of modal verbs, their inability to take a *ki*-clause or a subject phrase in such a setting argues against such a position (34).

(34)   a. *Zan ti pe   paret   ki   malad.
          John PST PROG seem.SF COMP sick

        b. *Zan ti pe   paret   ki   li   malad.
          John PST PROG seem.SF COMP 3SG sick

Table 6 summarizes the main properties of complement types described above.

TYPE	VERB FORM	TMA	SUBJECT	COMPLEMENTIZER
clause	LF	yes	yes	ki
open-complements				
- pou-marked VP	SF	no	yes	pou
- bare VP	SF	no	no	no
complement of modal	SF	yes	no	no

Table 6: Basic properties of complement types

5 TMA markers

Mauritian TMA markers form a closed class of five items with specific syntactic properties. They are listed in table (35).

(35)

Tense	Mood		Aspect	
PST	IRR	IND.IRR	PERF	PROG
ti	pou	ava / va / a	inn / finn	pe

TMA markers express tense, aspect and mood properties of events. Mood markers *ava* and *pou* are in complementary distribution as are aspect markers *inn* and *pe*. The absence of a TMA marker is meaningful. For instance, the absence of the tense marker *ti* will generally be associated with a non-past interpretation and the absence of mood markers with the realis interpretation (36-a)-(36-b). On the other hand, a progressive interpretation can be obtained without the progressive marker *pe* (36-a).

(36)   a.   Mo vini.
            1SG come.LF
            I am coming/I (usually) come (habitual/progressive)
       b.   Zan sante.
            Jean sing.LF
            John (usually) sings (habitual/*progressive).

A clause can simultaneously contain TMA markers of all three classes. The relative order between TMA marker is strict. Recall that non-clauses do not allow for TMA marking (see section §3.1 above).

(37)   ti (tense) < pou/ava (mood) < pe/inn (aspect)

(38)   a.   Mo   mama ti pou pe   travay sa ler la si li ti la
            1SG.POSS mother PST IRR PROG work.LF DEM hour DEF if 3SG PST there
            My mother would be working at this time if she was there.
       b.   Mo   mama ti ava   pe   travay si pa ti met li deor
            1SG.POSS mother PST IND.IRR PROG work.LF if NEG PST put.SF 3SG out
            My mother would have been working if she hadn't been fired.
       c.   Li ti pou'nn   fini   manze si to ti fini   kwi.
            3SG PST IRR'PERF finish.SF eat.LF if 2SG PST finish.SF cook.LF
            He/She would have finished eating if you had already cooked.
       d.   Mo ti ava'nn   sorti   si mo ti anvi
            1SG PST IND.IRR'PERF go_out.LF if 1SG PST want.LF
            I would have gone out if I wanted to.

We analyze TMA markers as markers. Markers have two defining properties. (I) They select the phrase they combine with. (II) The distributional properties of a phrase combined with a marker may be different from those of the same phrase without the marker. Thus they resemble heads but they also differ from them in one aspect. Subcategorization properties of heads need to access information about what a marker combines with while they do not need to access information about what the complement of a head is.

Markers such as the French complementizer *que* can introduce a clause whose head is an indicative or subjunctive verb form. When it introduces the clausal complement of a verb such as *vouloir*, it can only be followed by a subjunctive form (39-a)-(39-b). If it is analyzed as a head, this means that a verb subcategorizes for a property of the complement of its complement. This is never the case with non-markers. There is no verb *vouloir2* in French which subcategorizes for a verb which has a NP complement as opposed to a clausal complement (40-a)-(40-b).

(39)   a.   Je   veux   [qu'   il   vienne   ].
             1SG want.IND [COMP 3SG come.SUBJ]
             'I want him to come.'
       b.   *Je   veux   [qu'   il   vient   ]
             1SG want.IND [COMP 3SG come.IND]
             'I want him to come.'

(40)   a.   Je   veux2   [voir   le   film   ].
             1SG want2.IND [see.INF DEF movie]
             'I want to see the movie.'
       b.   *Je   veux2   [voir   où   on   va   dormir   ]
             1SG want2.IND [see.INF where one go.IND sleep.INF]
             'I want to see where we will sleep.'

Markers differ from adjuncts in that they never change the distribution of the phrase they combine with.

TMA markers are not affixes on verbs: TMA markers are not affixes on the word which follows them (Zwicky and Pullum, 1983). As affixes on verbs, they would be *unselective*. TMA markers can be followed by words of almost any category (nouns, verbs, adverbs, adjectives, determiners, other TMA markers) and almost any function (heads, modifiers, specifiers - but not subjects or complements because of their linearization properties).

(41)   Ti   pou enn bon   koumansman.
       PST IRR IND good start
       'It would have been a good start.'

Phonological evidence shows that TMA markers are clitics on the preceding word.

(42)   a.   Mo pa'nn   vini.
             1SG NEG'PERF come.LF
             'I haven't come.'
       b.   Mo'nn   vini.
             1SG'PERF come.LF
             'I have come.'

Moreover, adverbs such as *fek* can appear between TMA markers and the head verb (43). TMA markers are not affixes on verbs: TMA markers are not affixes on verbs. As affixes, they would be unselective.

(43) Mo ti   fek vini.
      1SG PST just come.LF
      'I had just come.'

TMA markers are not (raising) verbs: In Mauritian, the properties of TMA markers are very different from those of verbs and there is no syntactic generalization in support of an analysis of TMA markers as verbs.

First, Mauritian verbs may function as the head of a clause or as the head of an open complement with the same set of forms (see (6) above). TMA markers, however, may only appear in clauses. This is reminiscent of markers such as *that* but also of auxiliaries such as *can* or *will* in English. However, while there is independent reason to treat *can* or *will* as heads in English such as the non-finite form of their complement, there is none in Mauritian.

Second, TMA markers must precede the head of the clause (50) or the head of the complement of a modal verb (50). We call that element the host of the TMA markers. The strict ordering of TMA markers and their optionality from a syntactic point of view is hard to explain if TMA markers are verbs. Expressing the strict ordering in the complementation is not a problem *per se* if the ordering is accounted for by rule similar to English will having a base form as its complement while have having a past participle as its complement. Neither is the optionality if the form of the complement is underspecified in the right way. However, it is quite unusual to encounter such cases of underspecification in the complementation of heads while it is much more frequent in the selection properties of adjuncts such as adverbs.

Third, TMA markers show none of the morphosyntactic properties of Mauritian verbs. They do not show any morphological alternation between a long or short form. They do not allow for ellipsis of the constituent which follows them. This can be illustrated with short answers and elliptical imperative clauses (45). They cannot be coordinated (47-b). In this respect, they contrast with modals (44).

(44) a. Zan pou/kapav manz poul? (Will/Can John eat chicken?)
      b. *Non, Zan ti
          no   John PST
          Intended. No, John did.
      c. Wi, Zan kapav
          yes John can.LF
          Yes, John can.

(45) a. To ti/kapav amenn sa? (Did/Can you bring this?)
      b. *Non, pa   ti
          no   NEG PST
          Intended: No, I didn't.
      c. Non, pa   kapav
          No   NEG can.LF
          No, I can't.

(46) a. To ti pe   ekrir   let   la, be kontigne!
          2SG PST PROG write.SF letter DEF so continue.LF
          You were writing the letter, so continue!

  b. To le ekrir let la, be pou demin!
    2SG want.SF write.SF letter DEF so IRR tomorrow
    You want to write the letter, so you will do it tomorrow.

(47) a. To pou kontign ou aret to   kour?
    2SG IRR continue.SF or stop.SF 2SG.POSS course
    You will continue or stop your course.
  b. *To'nn ou pou aret to   kour?
    2SG'PERF or IRR stop.SF 2SG.POSS course
    You have or will stop your course.

Fourth, the behavior of the TMA marker *pe*, which can be iterated is hard to account for within an analysis in which it is analyzed as a verb. We here account for the strict ordering of TMA markers in syntax. However, strict ordering could also receive a semantic account. For instance, tense has been analyzed as taking scope over aspect (Bonami, 2002). This is indeed true for Mauritian since tense marker *ti* systematically appears on the left of irrealis and aspectual markers.

(48) a. Mo'nn kapav (*inn) manze
    1SG.PERF can.SF PERF eat.LF
    I have been able to eat.
  b. Li pe kapav pe vini
    3SG PROG can.SF PROG come.LF
    He/she may be coming.
  c. Li pe ankor pe vini
    3SG PROG still PROG come.LF
    He/she is still coming.

	Mauritian TMA	French AUX	English AUX
VP ellipsis	no	no	yes
Dependent form	no	yes	yes
Coordination	no	-	yes
Only in clauses	yes	no	yes

Table 7: Comparison between TMA markers and French and English auxiliaries

TMA markers as markers: The analysis of TMA markers as markers accounts for their distributional properties but not for the strict ordering and the placement of adverbs. The linearization properties of TMA markers are as follows:

- First, TMA markers must follow the subject and sentential negation.

  (49) (subject) < (negation) < TMA*

- Second, TMA markers must precede the head of the clause or the head of the complement of a modal verb. We call that element the host of the TMA markers.

  (50) TMA*

(51)   modal ≺ TMA* ≺ head-of-the-complement

- Third, only a few adverbs may be inserted between TMA markers or between TMA markers and their host.

(52)   a.   Mo (ti)   byen/ankor (*ti)   manz krep.
               1SG (PST) well/again   (PST) eat.SF pancake
               I ate pancakes ?well/again.

Linearization properties are not directly accounted for by the analysis as marker. Rather they must be explained by additional constraints on word order.

6   SBCG Analysis

We propose an SBCG analysis of Mauritian control and raising verbs. A SBCG grammar is a combination of descriptions of signs (lexemes, words and phrases) and descriptions of relations between signs (called constructs). These descriptions make use of a specific feature geometry which is described in Sag (2010). Sign descriptions are enclosed in double brackets while constructs are enclosed in single brackets.

Constructs are required to describe local relations. This means that while it is possible to express relations between a phrase and its direct constituents, it is not possible to recursively express relations between a phrase and the constituents of its constituents. As a result, SBCG incorporates a theory of constructional locality. Note that there is a clear distinction between a phrase as a distributional unit (which is a type of sign) and the relations which must exist between a phrase and its direct constituents for it to be well-formed (which is a type of construct).

Although we are primarily interested in analyzing the complementation of Mauritian control and raising verbs, the grammar fragment we present here will have a slightly larger scope since it is necessary in order to successfully account for the ungrammaticality of some structures involving these verbs.

The subcategorization properties of lexemes are represented as properties of individual lexical signs (feature ARG-ST). Generalization over the subcategorization properties of several lexical items can be accounted for by using a type hierarchy of subcategorization properties. A theory of grammatical marking (feature MRKG) is used to account for ordering of TMA markers and distribution of marked constituents [1]. A theory of constituent weight (feature WEIGHT) is used to account for the restricted mobility of preverbal adverbs and TMA markers (see Abeillé and Godard (2000) for a use of weight features in conjunction with rules of linear precedence).

6.1   Clauses, verb forms, TMA-markers and complementizers

We first account for clauses. They have two properties: they have an empty valence list and clausal marking, that is either the *ki-comp* or the *TMA-mrk* value (53).

---

[1] see Tseng (2001) on the link between verbal forms and complementizer marking on one hand and case marking and prepositional marking on the other.

(53)   clause ⇒ $\begin{bmatrix} \begin{bmatrix} \text{SYN} & \begin{bmatrix} \text{VAL} & \langle\ \rangle \\ \text{EXTRA} & \langle\ \rangle \\ \text{MRKG} & \textit{ki-comp} \vee \textit{TMA-mrk} \end{bmatrix} \end{bmatrix} \end{bmatrix}$

There are two implicational constraints on the form of verbs in Mauritian. If a verb has a short form then it must have at least one non clausal element on its valence list other than the external argument (54). If a verb has an empty its valence list besides the external argument then it must have a long form (55). Since clausal complements do not trigger the SF they are not accounted for on the valence list but on the extraposed list (10-b)[2]. These two constraints leave open cases where a verb has a long form despite having non-clausal element on its valence list other than the external argument. This is exactly what happens in cases of *verum focus*. See Henri et al. (2008); Henri (2010) for an in-depth description and constraint-based analysis of Mauritian verb forms.

(54) $\begin{bmatrix} \textit{verb} \\ \text{CAT} & \begin{bmatrix} \text{VFORM} & \textit{short} \end{bmatrix} \end{bmatrix} \Rightarrow \begin{bmatrix} \text{XARG} & \boxed{1} \\ \text{VAL} & \boxed{1} \oplus \textit{nelist} \end{bmatrix}$

(55) $\begin{bmatrix} \textit{verb} \\ \text{XARG} & \boxed{1} \\ \text{VAL} & \boxed{1} \end{bmatrix} \Rightarrow \begin{bmatrix} \text{CAT} & \begin{bmatrix} \text{VFORM} & \textit{long} \end{bmatrix} \end{bmatrix}$

A TMA marker is a marker. It selects a phrase which is *lite* and marked as *TMA-mrk* or a subtype of it. TMA markers are *lite* and contribute a marking value which is a subtype of *TMA-mrk* (56).

(56)   TMA-marker ⇒

$\begin{bmatrix} \begin{bmatrix} \text{SYN} & \begin{bmatrix} \text{CAT} & \begin{bmatrix} \text{SELECT} & \begin{bmatrix} \text{SYN} & \begin{bmatrix} \text{MRKG} & \textit{TMA-mrk} \\ \text{WEIGHT} & \textit{lite} \end{bmatrix} \end{bmatrix} \end{bmatrix} \\ \text{MRKG} & \textit{TMA-mrk} \\ \text{VAL} & \langle\ \rangle \\ \text{WEIGHT} & \textit{lite} \end{bmatrix} \end{bmatrix} \end{bmatrix}$
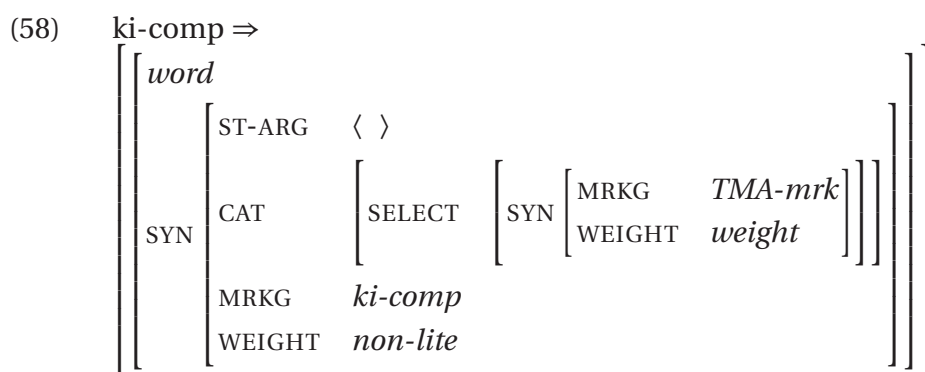
The following hierarchy of marking values is needed to account for the strict ordering of TMA markers (57).

---

[2]See Kay and Sag (2009) for an analysis of extraposed elements in English and Henri (2010) for arguments in favor of clausal complements as extraposed complements.

(57)

```
                      TMA-mrk
                    /         \
              ti-mrk          ma1-mrk
                             /        \
                       ava-mrk        ma2-mrk
                                     /        \
                               pou-mrk        asp1-mrk
                                             /        \
                                       inn-mrk        asp2-mrk
                                                     /        \
                                               pe-mrk        TMA-unmrk
```
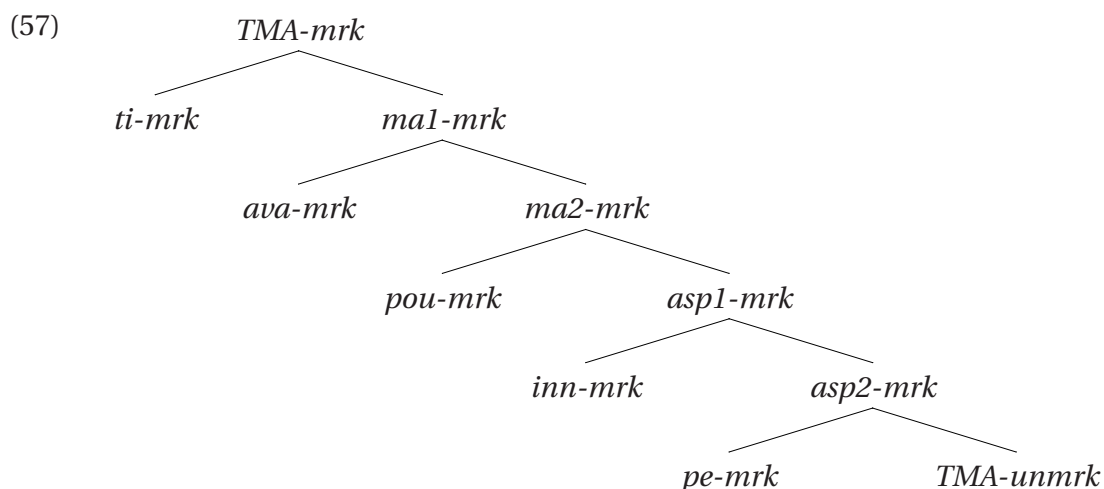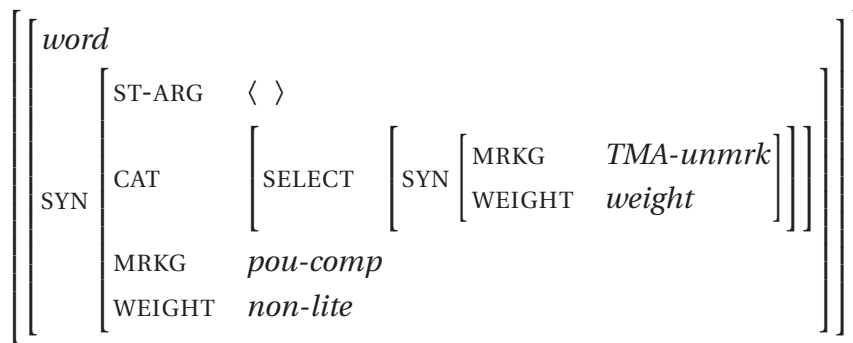
feature. TMA markers would simply add their marking value on the left of the marking list. Order constraints between TMA markers could then be expressed using the order of marking values in the list. Such an analysis would also provide a solution to the problem of the syntax-semantics interface. A major problem for the syntax-semantics interface is that some tense/aspect/mood combinations are expressed by the absence of a TMA marker. Having a list of the marking values available at the level of the clause would solve that problem because a semantics could be easily linked the list of TMA markers making their absence meaningful.

Complementizers are also markers but unlike TMA-markers, they are non-lite. The complementizer *ki* is a non-lite marker which selects *TMA-mrk* phrases of any weight (58).

(58)   ki-comp ⇒

$$
\begin{bmatrix}
\begin{bmatrix}
word \\
\text{SYN}
\begin{bmatrix}
\text{ST-ARG} & \langle\ \rangle \\
\text{CAT} & \begin{bmatrix} \text{SELECT} & \begin{bmatrix} \text{SYN} & \begin{bmatrix} \text{MRKG} & TMA\text{-}mrk \\ \text{WEIGHT} & weight \end{bmatrix} \end{bmatrix} \end{bmatrix} \\
\text{MRKG} & ki\text{-}comp \\
\text{WEIGHT} & non\text{-}lite
\end{bmatrix}
\end{bmatrix}
\end{bmatrix}
$$

The complementizer *pou* is a non-lite marker which selects *TMA-unmrk* phrases of any weight (59).

(59)   pou-comp ⇒

$$
\begin{bmatrix}
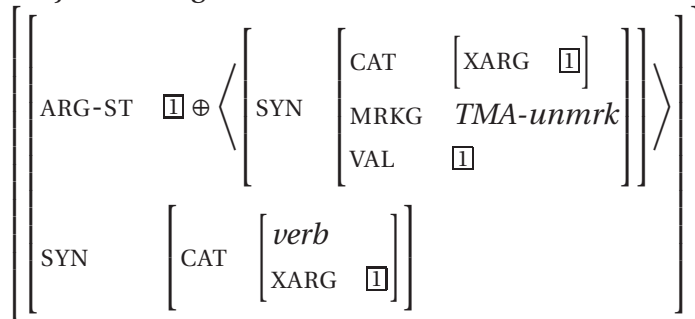\begin{bmatrix}
\textit{word} \\[4pt]
\text{SYN} \begin{bmatrix}
\text{ST-ARG} & \langle\ \rangle \\[4pt]
\text{CAT} & \begin{bmatrix} \text{SELECT} & \begin{bmatrix} \text{SYN} & \begin{bmatrix} \text{MRKG} & \textit{TMA-unmrk} \\ \text{WEIGHT} & \textit{weight} \end{bmatrix} \end{bmatrix} \end{bmatrix} \\[4pt]
\text{MRKG} & \textit{pou-comp} \\
\text{WEIGHT} & \textit{non-lite}
\end{bmatrix}
\end{bmatrix}
\end{bmatrix}
$$

6.2   Raising and control verbs

Subcategorization properties of lexemes are represented as properties of individual lexical signs (feature ARG-ST). Generalization over the subcategorization properties of several lexical items can be accounted for by using a type hierarchy of lexemes.

   Subject raising verb lexemes place the following constraint on their argumental structure (feature ARG-ST): If their TMA-unmarked complement has an external argument then it should not be realized inside the complement and be shared with the external argument of the raising verb (60). If their complement has no external argument, as is the case with impersonal expressions such as *ena lapli* 'to rain' then the raising verb itself has no external argument (61).
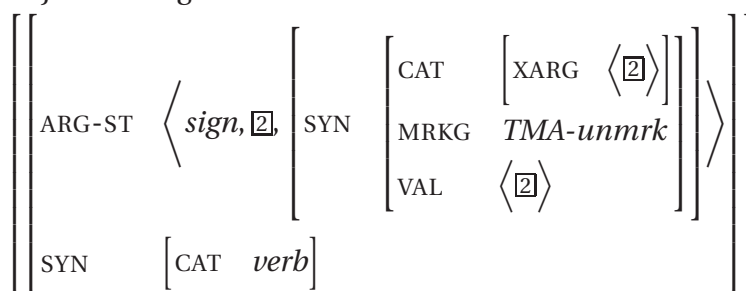
(60)   subject-raising-verb-lexeme $\Rightarrow$

$$
\begin{bmatrix}
\text{ARG-ST} & \boxed{1} \oplus \left\langle \begin{bmatrix} \text{SYN} & \begin{bmatrix} \text{CAT} & \begin{bmatrix} \text{XARG} & \boxed{1} \end{bmatrix} \\ \text{MRKG} & \textit{TMA-unmrk} \\ \text{VAL} & \boxed{1} \end{bmatrix} \end{bmatrix} \right\rangle \\[10pt]
\text{SYN} & \begin{bmatrix} \text{CAT} & \begin{bmatrix} \textit{verb} \\ \text{XARG} & \boxed{1} \end{bmatrix} \end{bmatrix}
\end{bmatrix}
$$

(61)   Kontign   ena   lapli.
       continue.SF have.SF rain
       'It continued to rain.'

Object raising verb lexemes have a TMA-unmarked complement whose external argument is shared with another argument which is not the external argument (62). Unlike subject raising verbs, the shared element cannot be the empty list (63).

(62)   object-raising-verb-lexeme $\Rightarrow$

$$
\begin{bmatrix}
\text{ARG-ST} & \left\langle \textit{sign}, \boxed{2}, \begin{bmatrix} \text{SYN} & \begin{bmatrix} \text{CAT} & \begin{bmatrix} \text{XARG} & \langle \boxed{2} \rangle \end{bmatrix} \\ \text{MRKG} & \textit{TMA-unmrk} \\ \text{VAL} & \langle \boxed{2} \rangle \end{bmatrix} \end{bmatrix} \right\rangle \\[10pt]
\text{SYN} & \begin{bmatrix} \text{CAT} & \textit{verb} \end{bmatrix}
\end{bmatrix}
$$

(63) *Mo 'nn get   ena   lapli
      1SG PERF see.SF have.SF rain
      'I have seen that it rains.'

Subject control verb lexemes must be divided into two different classes: those that take bare VP complements (64) illustrated in (65) and those that take *pou*-marked complements (66) illustrated in (67). Only the value of the INDEX feature of the signs is shared.

(64) subject-control-verb-bare-vp-lexeme ⇒

$$
\begin{bmatrix}
\begin{bmatrix}
\text{ARG-ST} & \left\langle \begin{bmatrix} \text{SEM} & [\text{IND} \quad \boxed{2}] \end{bmatrix}, \begin{bmatrix} \text{SYN} & \begin{bmatrix} \text{CAT} & \begin{bmatrix} \textit{verb} \\ \text{XARG} & \left\langle \boxed{3}\begin{bmatrix}\text{SEM} & [\text{IND} \quad \boxed{2}]\end{bmatrix}\right\rangle \end{bmatrix} \\ \text{MRKG} & \textit{TMA-unmrk} \\ \text{VAL} & \left\langle \boxed{3} \right\rangle \end{bmatrix} \end{bmatrix} \right\rangle \\
\text{SYN} & \begin{bmatrix} \text{CAT} & \textit{verb} \end{bmatrix}
\end{bmatrix}
\end{bmatrix}
$$

(65) Zan inn sey   vini.
      John PERF try.SF come.LF
      'John has tried to come.'

(66) subject-control-verb-pou-vp-lexeme ⇒

$$
\begin{bmatrix}
\begin{bmatrix}
\text{ARG-ST} & \left\langle \begin{bmatrix} \text{SEM} & [\text{IND} \quad \boxed{2}] \end{bmatrix}, \begin{bmatrix} \text{SYN} & \begin{bmatrix} \text{CAT} & \begin{bmatrix} \textit{verb} \\ \text{XARG} & \begin{bmatrix}\text{SEM} & [\text{IND} \quad \boxed{2}]\end{bmatrix} \end{bmatrix} \\ \text{MRKG} & \textit{pou-comp} \end{bmatrix} \end{bmatrix} \right\rangle \\
\text{SYN} & \begin{bmatrix} \text{CAT} & \textit{verb} \end{bmatrix}
\end{bmatrix}
\end{bmatrix}
$$

(67) Zan pans   pou vini.
      John think.SF COMP come.LF
      'John thinks of coming.'

Object control verb lexemes impose index sharing between the external argument of their open complement and one of their complement. Thus, their open complement must have an external argument. As is the case with other bare VP complements, TMA marking is not allowed (68). An example of object control verb is given in (69)

(68) object-control-verb-bare-vp-lexeme ⇒

$$
\begin{bmatrix}
\begin{bmatrix}
\text{ARG-ST} & \left\langle \textit{sign}, \begin{bmatrix} \text{SEM} & [\text{IND} \quad \boxed{3}] \end{bmatrix}, \begin{bmatrix} \text{SYN} & \begin{bmatrix} \text{CAT} & \begin{bmatrix} \textit{verb} \\ \text{XARG} & \left\langle \boxed{4}\begin{bmatrix}\text{SEM} & [\text{IND} \quad \boxed{3}]\end{bmatrix}\right\rangle \end{bmatrix} \\ \text{MRKG} & \textit{TMA-unmrk} \\ \text{VAL} & \left\langle \boxed{4} \right\rangle \end{bmatrix} \end{bmatrix} \right\rangle \\
\text{SYN} & \begin{bmatrix} \text{CAT} & \textit{verb} \end{bmatrix}
\end{bmatrix}
\end{bmatrix}
$$

(69) Mari inn ankouraz so kamarad vini.
      Mary PERF encourage.SF 3SG.POSS friend come.LF
      '*Mary has encouraged her/his friend to come.*'

Modals are subject raising verbs but they do not have the same type of complement as other raising verbs since some TMA-markers can appear in the complement of modals. As other subject raising verbs, modals require identity between the XARG and the VAL list of their complement (70). This ensures (1) that the external argument of the complement is not realized within the complement and (2) that the complements of the complement's head are realized within the complement. When the XARG list of the complement is the empty list, the VAL list must be the empty list as well, as is the case in (71) for which a tree representation is given in (72). This allows one to dispense positing empty non-referential element on the VAL list. Modals also both inherit and constrain the marking features of their complement. This account for the fact that modals and their complements share one and the same TMA marker sequence.

(70) modal-verb ⇒

$$
\left[\begin{array}{l} \left[\text{ARG-ST} \quad \boxed{1} \oplus \left\langle \left[\text{SYN} \quad \left[\begin{array}{ll} \text{CAT} & \left[\text{XARG} \quad \boxed{1} \right] \\ \text{VAL} & \boxed{1} \\ \text{MRKG} & \boxed{2} \end{array} \right] \right] \right\rangle \right. \\ \left. \text{SYN} \quad \left[\begin{array}{ll} \text{CAT} & \textit{verb} \\ \text{MRKG} & \boxed{2}\ \textit{ma2-mrk} \end{array} \right] \right] \end{array} \right]
$$

(71) {kapav | bizin | paret | ti oredi} ena   lapli.
      {can.SF | must.SF | seem.SF | PST should.SF} have.SF rain
      '*It {{can | must | seems to} rain | should have rained}.*'

(72)
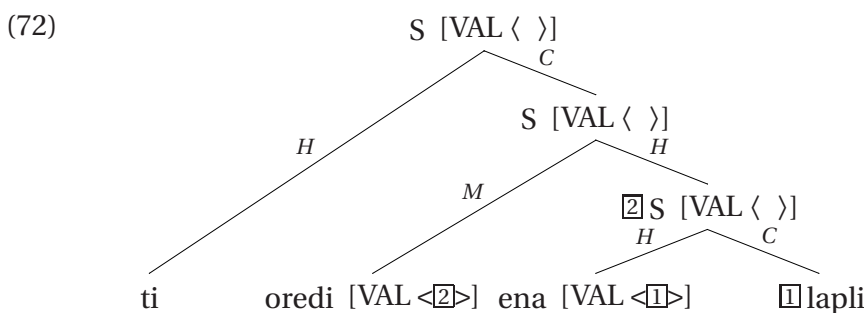
6.3 Constructs

The grammar fragment makes use of three constructs to combine words and phrases together. The *head-subject-construct* realizes syntactically the external argument of a phrase as the subject. The non-head-daughter of the construct corresponds to the external argument of the head-daughter as well as to the unique element on the VAL list of the head-daughter. The mother of the construct has an empty VAL list. It has same marking feature as the head-daughter. It has a non-lite WEIGHT as well, which prevents lite functors from preceding the subject (73).

(73)   head-subject-construct ⇒

$$
\begin{bmatrix}
\text{MTR} & \begin{bmatrix}
\textit{sign} \\
\text{SYN} & \begin{bmatrix}
\text{VAL} & \langle\rangle \\
\text{MRKG} & \boxed{1} \\
\text{WEIGHT} & \textit{non-lite}
\end{bmatrix}
\end{bmatrix} \\
\text{DTRS} & \left\langle \boxed{2}, \boxed{3} \right\rangle \\
\text{HD-DTR} & \boxed{3} \begin{bmatrix}
\textit{sign} \\
\text{SYN} & \begin{bmatrix}
\text{CAT} & \begin{bmatrix} \text{XARG} & \langle\boxed{2}\rangle \end{bmatrix} \\
\text{VAL} & \langle\boxed{2}\rangle \\
\text{MRKG} & \boxed{1}
\end{bmatrix}
\end{bmatrix}
\end{bmatrix}
$$

The *head-complements-construct* realizes syntactically the complements of a word. Each non-head-daughter of the construct correspond to one element of the VAL list of the head-daughter. If there is an external argument on the VAL list, it will not appear as a complement of the head-daughter and remain on the VAL list of the mother of the construct. If there is no external argument, the mother of the construct has an empty VAL list. The mother has same marking feature as the head-daughter. It has a lite WEIGHT, which allows lite functors to combine with it (74).
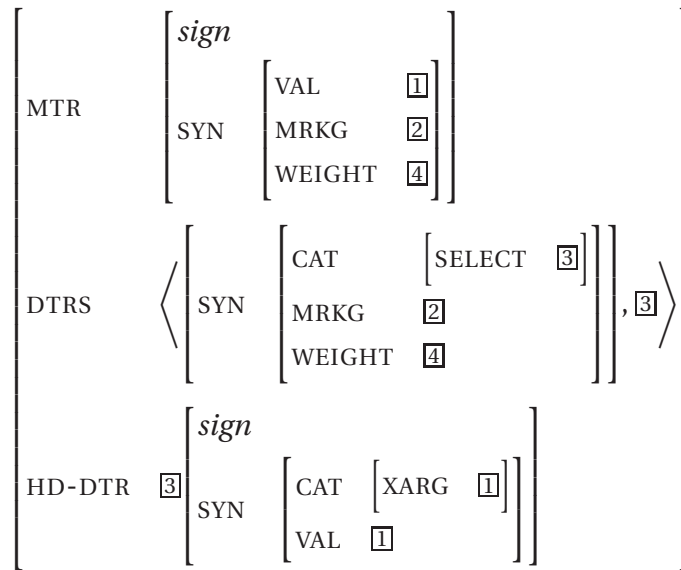
(74)   head-complements-construct ⇒

$$
\begin{bmatrix}
\text{MTR} & \begin{bmatrix}
\textit{sign} \\
\text{SYN} & \begin{bmatrix}
\text{VAL} & \boxed{1} \\
\text{MRKG} & \boxed{2} \\
\text{WEIGHT} & \textit{lite}
\end{bmatrix}
\end{bmatrix} \\
\text{DTRS} & \left\langle \boxed{3} \right\rangle \oplus \boxed{4}\ \textit{nelist} \\
\text{HD-DTR} & \boxed{3} \begin{bmatrix}
\textit{sign} \\
\text{SYN} & \begin{bmatrix}
\text{CAT} & \begin{bmatrix} \text{XARG} & \boxed{1} \end{bmatrix} \\
\text{MRKG} & \boxed{2} \\
\text{VAL} & \boxed{1} \oplus \boxed{4}
\end{bmatrix}
\end{bmatrix}
\end{bmatrix}
$$

The *head-functor-construct* realizes syntactically the functor of a phrase. The non-head-daughter of the construct is not a valent of the head-daughter but rather selects it via the SELECT feature. The mother has the same VAL list, the same marking and the same weight as the non-head-daughter [3] (75).

(75)   head-functor-construct ⇒

---

[3]Some adverbs will be underspecified for weight and inherit their weight from the head-daughter in which case they will be transparent with respect to the weight algebra.

$$
\begin{bmatrix}
\text{MTR} & \begin{bmatrix} sign \\[4pt] \text{SYN} & \begin{bmatrix} \text{VAL} & \boxed{1} \\ \text{MRKG} & \boxed{2} \\ \text{WEIGHT} & \boxed{4} \end{bmatrix} \end{bmatrix} \\[30pt]
\text{DTRS} & \left\langle \begin{bmatrix} \text{SYN} & \begin{bmatrix} \text{CAT} & \begin{bmatrix} \text{SELECT} & \boxed{3} \end{bmatrix} \\ \text{MRKG} & \boxed{2} \\ \text{WEIGHT} & \boxed{4} \end{bmatrix} \end{bmatrix}, \boxed{3} \right\rangle \\[30pt]
\text{HD-DTR} & \boxed{3} \begin{bmatrix} sign \\[4pt] \text{SYN} & \begin{bmatrix} \text{CAT} & \begin{bmatrix} \text{XARG} & \boxed{1} \end{bmatrix} \\ \text{VAL} & \boxed{1} \end{bmatrix} \end{bmatrix}
\end{bmatrix}
$$

A tree representation for the sentence in (76) is given in (77) [4].

(76) Mo pa ti pe touzour kapav pa pe get sa.
      1SG NEG PST PROG always can.SF NEG PROG see.SF this
      'I could not always not be looking at this.'

(77)
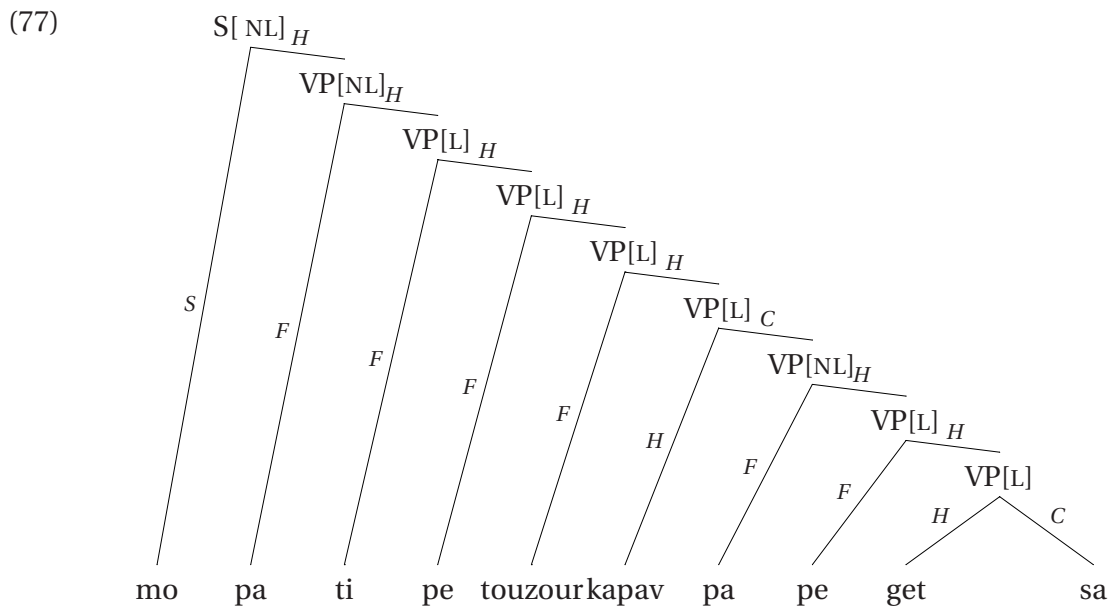
7 Conclusion

The paper provides a detailed analysis of the complementation patterns found with raising and control predicates in Mauritian. It addresses the question of the category of raising and control complements. The complementation of raising and control verbs has been studied in many languages. In particular, they have been analyzed as clauses or small clauses in an attempt to preserve a strict homomorphism between syntac-

---

[4]NL stands for non-lite, L for lite.

tic and semantic representations. Such analyses have been shown to be problematic even for languages such as English for which they had originally been proposed. We show that they are not adequate for Mauritian either. In particular, morphological facts which can be observed on the subcategorizing verb allows one to distinguish between clausal and non-clausal complements. Complements of raising and control verbs systematically pattern with non-clausal phrases such as NPs or PPs. This kind of evidence is seldom available in world's languages because heads are not usually sensitive to the properties of their complements. The analysis as clause or small clauses is also problematic because of the existence of genuine verbless clauses in Mauritian which pattern with verbal clauses and not with complements of raising and control verbs.

The analysis is couched in a constructional constraint-based grammar (SBCG). We mainly provide a classification of raising and control predicates as well as a classification of their complementation patterns. Most properties of the complementation of these predicates may be expected from a cross-linguistic point of view. However, many features of the grammar are quite unusual. A first example is the complementation of modal verbs and their interaction with the TMA marker system. These markers do not have verbal properties and are best viewed as markers (i.e. as elements which select a phrase and can modify its distribution) rather than heads. A second example is the existence of complements of control verbs marked by the complementizer *pou* which license a pronominal subject constituent which is obligatorily controlled by the subject of the control verb.

References

Abeillé, A. and D Godard, 2000. French word order and lexical weight. In Borsley, Robert (ed.), *The nature and function of Syntactic Categories*, vol. 32 of *Syntax and Semantics*, pp. 325–358. New York: cademic Press.

Bonami, Olivier, 2002. A syntax-semantics interface for tense and aspect in french. In Eynde, F. Van, L. Hellan, and D. Beerman (eds.), *The Proceedings of the HPSG '01 Conference*. Stanford: CSLI Publications.

Bonami, Olivier and Fabiola Henri, 2010. How complex is creole inflectional morphology? the case of Mauritian. International Meeting of Morphology 14. Poster Presentation.

Bresnan, Joan, 1982. *The mental representation of grammatical relations*, chap. 5: Control and Complementation, pp. 282–390. Series on Cognitive Theory. MIT Press.

Bresnan, Joan and Annie Zaenen, 1990. Deep unaccusativity in lfg. In Dziwirek, K., P. Farrell, and E. M. Bikandi (eds.), *Grammatical relations: a cross-theoretical perspective*, pp. 45–57. Stanford CA: CSLI Publications.

Chomsky, Noam, 1981. *Lectures on Government and Binding*. Dordrecht: Foris.

Henri, Fabiola, 2010. *A Constraint-Based Approach to Verbal Constructions in Mauritian: Morphological, Syntactic and Discourse-based Aspects*. Ph.D. thesis, University Paris Diderot- Paris 7 and University of Mauritius.

Henri, Fabiola and Anne Abeillé, 2007. The syntax of copular construction in mauritian. In Müller, Stefan (ed.), *The Proceedings of the 14th International Conference on Head-Driven Phrase Structure Grammar*, pp. 130–149. Stanford: CSLI Publications.

Henri, Fabiola, Jean-Marie Marandin, and Anne Abeillé, 2008. Information structure coding in mauritian: Verum focus expressed by long forms of verbs. In *Predicate Focus, Verum Focus, Verb Focus: Similarities and Difference*. University of Potsdam, Germany.

Hukari, T.E. and R.D. Levine, 1995. Adjunct extraction. *Journal of Linguistics*, 31:195–226.

Jackendoff, Ray and Peter W. Culicover, 2003. The semantic basis of control in english. *Language*, 79:517–556.

Karimi, Simin, 2008. Raising and control in persian. In Karimi, Simin, Vida Samiian, and Don Stilo (eds.), *Aspects of Iranian Linguistics*. Cambridge Scholars Publishing.

Kay, Paul and Ivan A. Sag, 2009. How hard a problem would this be to solve? pp. 171–191.

Pollard, Carl and Ivan Sag, 1991. An integrated theory of complement control. *Language*, 67:63–113.

———, 1994. *Head-Driven Phrase Structure Grammar*. Stanford: CSLI Publications.

Sag, Ivan, 2010. *Sign-Based Construction Grammar*, chap. Sign-Based Construction Grammar: An informal Synopsis. Stanford: CSLI.

Stowell, Timothy, 1981. *Origins of Phrase Structure*. Ph.D. thesis, Massachusetts Institute of Technology.

———, 1983. Subjects across categories. *Linguistic Review*, pp. 285–312.

Tseng, Jesse, 2001. Remarks on marking. In Eynde, Frank Van, Lars Hellan, and Dorothee Beermann (eds.), *On-line Proceedings of the 8th International Conference on Head-Driven Phrase Structure Grammar*, pp. 267–283. Norwegian University of Science and Technology, Trondheim, Norway: CSLI Publications.

Zec, D, 1987. On obligatory control in clausal complements. In Iida, M., S.Wechsler, and D. Zec (eds.), *Working Papers in Grammatical Theory and Discourse Structure*, pp. 139–168. Stanford: CSLI Publications.

Zwicky, Arnold M. and Geoffrey K. Pullum, 1983. Cliticization vs inflection: English n't. *Language*, 59:502–513.

Fabiola Henri & Frédéric Laurens
LLF & Université Paris Diderot - Paris 7
fabiola.henri@linguist.jussieu.fr
frederic.laurens@linguist.jussieu.fr