Verb form alternations in Mauritian

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1 Introduction

As is the case with some Creoles and African languages (Bantu, Gur among others) Mauritian has an alternation between two verb forms[1]: a short and a long form (henceforth SF and LF)[†], as is the case in (1a) where the verb has a long form without complement and in (1b) where the verb has a short form with a complement.

(1) a. Mo ti manze (*manz).
1SG PST eat.LF (*SF)
'I ate.'

b. Mo ti manz (*manze) kari.
1SG PST eat.SF (*LF) curry
'I ate curry.'

Analyses in terms of government and case assignment (Syea (1992); Hertz and LiPookTan (1987)) or predicate raising (functional/ecological analysis) (Seuren (1990)) have been proposed to account for the phenomenon, comparing it with auxiliary reduction not available in English when followed by a trace. The explanation as it is then accounts for vowel truncation as well as the absence of the copula in declarative clauses. However, as already suggested by Hertz and LiPookTan (1987), there are cases where the short form appears and where the verb does not seem to assign case, in which case an independent mechanism should be used so that case assignment is applied independently from government. The analysis advocated by Seuren (1990) also happens to be inadequate as intensively argued by Syea (1992). Basically, he formulates a principle of "maximizing semantic transparency" which regulates the output structures of predicate raising thus blocking the application of verbal truncation[2].

We propose an alternative account, precisely a constraint-based account of verb form alternation in Mauritian which accounts for the lack of LF with complements but we also consider discourse factors which enable LF to appear with a complement in case of Verum Focus (Höhle (1992)). As far as syntactic constraints are concerned, verbal alternation is but another example of verb sensitivity to argument realization (*cf.* Bouma et al. (2001) for other examples) and provides an argument in favor of a lexical analysis of extraction phenomena.

[1] We prefer to say that there is alternation instead of truncation (Syea (1992); Hertz and LiPookTan (1987)) or syncopation (Seuren (1990)).

[†] We wish to thank Jean-Marie Marandin, Danièle Godard, Olivier Bonami, and Frédéric Laurens for their comments and feedback on this paper. All remaining mistakes are of course our own. We also wish to thank Muhsina Allesaib and Chin Lan Leung for their judgments on the Mauritian data and Jeanne Fortilus on the Haitian data.

[2] For a critical analysis of Seuren (1990)'s work see Syea (1992). Note also that Verbal Truncation has been thought of as being a semantic phenomenon by Papen & Corne Papen (1978); Corne (1982)

2 Basics on Short Forms and Long Forms

Baker (1972) observes that 70% of the verbal lexicon is subject to this alternation and that those verbs are all vowel final *e* or *i*.

(2) a. Pol pou vinn (*vini) kot mwa.
Paul IRR come.SF (*LF) PREP 3SG.acc
'Paul will come at my place.'

b. Pol pou vini (*vinn).
Paul IRR come.LF (*SF)
'Paul will come.'

We admit four verb classes with respect to their morphology and the context in which they appear as is illustrated in (3).

(3)

	e ***-final***	***i*** ***-final***	**Others**	
			Non-alternating verbs	**Copula**
Short Form	al, manz, konn, avoy, touy, ferm, res, ploy, tann, rant, tom, mouy, pers...	sort vinn	bwar, krwar, pini, le balye, tenir, kouver, fer promne, atann, viv ...	-
Long Form	ale, manze, kone avoye, touye, ferme reste, ploye, tande rantre, tonbe, mouye, perse...	sorti vini		ete

We consider that we have different lexical entries for Long and Short Forms which have different syntactic constraints. These concern some *i* final verbs (only two of them) and *e* final verbs[3] which are phononologically determined (section 2.1). The third class concerns verbs that have the same form in both environments, i.e the same form would appear where a SF or a LF is expected. And finally we consider the copula as a special class having no short counterpart and, as Henri and Abeillé (2007) demonstrate, appear in extraction contexts (See section 4.2).

2.1 Morphophonological Rules

The citation form being always the LF, Corne 1982 (pp 50-52) proposes the following phonological rules. The first rule stipulates that a syllable-final *r* lengthens when a vowel precedes it. The second says that the final vowel is deleted if the verb belonging to the appropriate class is followed by specified items (here X). The problem with this rule is that a verb like *kone* 'to know', which is a stative, is also subject to truncation. The third rule concerns homorganic stop-nasal assimilation while the fourth has to do with denasalization. Finally the last rule affects

[3]These are basically French verbs form the first and third group

those verbs which have a consonant cluster like *reste, paste* and so on. However verbs like *koste, aste, poste, promne,* among others, do not allow truncation[4].

(4) a. $r \rightarrow$: / V___ $\left\{ \begin{matrix} \# \\ C \end{matrix} \right\}$ **eg: /marse/ → /maːs/**

b. $\begin{bmatrix} V \\ \text{-Back} \end{bmatrix} \rightarrow \emptyset$ /VC____# + X]Action **eg: /koze/ → /koz/**

c. $\begin{bmatrix} \text{+cons} \\ \text{+voice} \\ \text{+stop} \end{bmatrix} \rightarrow \begin{bmatrix} \text{+cons} \\ \text{+nas} \end{bmatrix} / \begin{bmatrix} \text{-cons} \\ \text{+nas} \end{bmatrix}$____ # **eg: /demãde/ → /demɑn/**

d. $\begin{bmatrix} \text{+cons} \\ \text{+nas} \end{bmatrix} \rightarrow \begin{bmatrix} \text{-cons} \\ \text{-nas} \end{bmatrix} / $ ____ $\begin{bmatrix} \text{+cons} \\ \text{+nas} \end{bmatrix}$ **eg: /tõbe/ → /tom/**

(only oral vowels occur before nasal consonants)

e. $C_2 \rightarrow \emptyset$ / VC_1____ $\begin{bmatrix} V \\ \text{-back} \\ \text{-high} \end{bmatrix}$#

Condition: C_1 is not *r* **eg: /reste/ → /res/**

Note that the rules are applicable to new verbs as well provided they fit into the given rules: a verb like *fakse* 'to fax'[5] does not undergo alternation but one like *telesarze* 'to download' does. The same goes for *mail* 'to mail or *chat* 'to chat' since, unlike French, they didn't pattern on the verbs of the first group but retained their English forms.

We are not dealing with a phonological phenomenon here, but a truly morphological alternation[6]. Only certain verbs are concerned (not all verbs with *e* or *i* final are shortened.) As will be seen in the following section, shortening applies only under syntactic (and eventually pragmatic) conditions and not under phonological constraints. In other words, neither the phonological form of the complement nor adjacency is a determining factor for vowel shortening in Mauritian.

[4]He also notes a very interesting fact that some verbs which do not usually undergo truncation do so when they are reduplicated because they are strictly intransitive. Examples of these are *ronf-ronfle* 'to snore-snore' or *tranb-tranble* 'to shiver-shiver' for instance, which we leave aside for the purpose of this paper. See Henri (to appear) on Verbal Reduplication.

[5]This is expected since all verbs having phonemic sequence /-kse/ (*bokse* 'to box', *takse* 'to tax', *pakse* (civil pact of solidarity) and so forth. This suggests that the last rule provided by Corne (1982) is insufficient or not constrained enough.

[6]See Crysmann (2005) for a similar argument in cases of Final Vowel Shortening in Hausa.

(5) a. Li manze (*manz) toultan
3SG eat.LF (*SF) always
'He always eats.'

b. Li manz (*manze) toultan kari poul
3SG eat.SF (*LF) always curry chicken
'He always eats chicken curry.'

3 The data: Syntactic Constraints

The data in this section shows that SFs and LFs of Mauritian verbs are clearly syntactically driven and encode argument realization sensitivity on the verb.

3.1 Short Forms

Leaving discourse aside for the moment the verbal form is SF if it has a canonical complement and otherwise LF.

(6) a. Zan inn zet (*zete) enn sak.
John PERF throw.SF (*LF) a bag
'John has thrown away a bag.'

b. Zot/Mari (pou/va) manz (*manze) banann.
3SG/John IRR/IRR.IND eat.SF (*LF) banana
'They/Mary will/would eat banana.'

c. Mo/Nou res (*reste) malad.
1SG/1PL stay.SF (*LF) sick
'I/We remain sick.'

Hence in (6a)-(6c), the verb remains invariable whether the subject is singular or plural, masculine or feminine, or whatever TMA marker precedes it, but has a short form because it is followed by an NP (6a), a bare noun (6b), and an AP (6c). The object needs not be adjacent to the verb, as is demonstrated in (5b). With a verb like *dat* a temporal PP is obligatorily needed as complement hence triggering the SF (7a). (7b) shows an adverbial type of complement and the verb still has the SF because the AdvP is analyzed as a truly selected dependent of the verb:

(7) a. Liv la dat (*date) depi sink an.
book DEF date.SF (*LF) since five year
'Lit. The book dates from five years ago.'

b. Zan koz (*koze) bien.
John speak.SF (*LF) well
'John speaks well.' (Generally)

Similarly, VP complements (8a)-(8c) behave like any phrasal complements previously mentioned, thus allowing the SF to surface, even those marked by the marker *pou* (8c)[7].

(8) a. Zan pe konn (*kone) dans (*danse) sega.
John PROG know.SF (LF) dance (LF) sega
'Lit. John is knowing how to dance the sega.'

b. Zan ti vinn (*vini) manze (*manz).
John PST come.SF (*LF) eat (*SF)
'Lit. John came to eat.'

c. Zan pans (*panse) [pou pas (*pase) so HSC_{VP}].
John think (*LF) AUX pass.SF (*LF) 3SG.POSS HSC
'Lit. John thinks of passing his HSC.'

Contrary to other languages,in particular Haitian and Hausa, which both have a verb form alternation, a pronominal complement also triggers the SF.

(9) Mo'nn trouv (*trouve) li.
1SG'PERF see.SF (*LF) 3SG
'I have seen him/her.'

Postverbal subjects with unaccusative verbs also trigger SFs, which is expected if we analyze them as complements. This concerns a sub-class of intransitive verbs which have the possibility of having a (non-agentive) inverted subject. For instance inversion is possible with *arive* 'to arrive', *reste* 'To stay/remain' but not with *koze* 'to speak/talk'.

(10) a. Inn ariv (*arive) enn aksidan.
PERF arive.SF (*LF) IND accident
Lit. '(There) has happened an accident.'

b. Enn aksidan inn arive (*ariv).
IND accident PERF arrive.LF (*SF)
'An accident has happened.'

(11) a. Enn profeser inn koze (*koz)
A teacher perf speak.LF (*sf)
'A teacher has spoken.'

b. *Inn koze enn profeser.

c. *Inn koz enn profeser.

[7]This marker is to be distinguished from the irrealis *pou*. It has the same properties of infinitival 'to' in English and can be analyzed an an auxiliary verb which takes an 'non-finite' phrase as complement.

3.1.1 Ditransitives

Ditransitives are like other verbs and thus have a SF if one of their complements or both are present as in (12).

(12) Mo'nn donn (*done) Zan enn sak.
1SG'PERF give.SF (*LF) John a bag
'I have given John a bag.'

(13) a. Kisannla Zan inn donn (*done) enn sak?
who John PERF give.SF (*LF) a bag?
'To whom has John given a bag?'

b. Ki Zan inn donn (*done) Mari?
what John PERF give.SF (*LF) Mary
'What has John given Mary?'

If both complements are extracted LF surfaces (14).

(14) Ki Zan inn done (*donn)?
what John PERF give.LF (*SF)
'What has John given?'

3.2 Long Forms

The LF appears when the verb has no complements as illustrated in (1a). It are also available if PPs and adverbials follow the verb because they are modifiers. (15) requires LF since the adverbial phrase *depi yer* is an adjunct.

(15) Nou/Zan (ti/pe) marse (*mars) depi yer.
2PL/John walk (*SF) since yesterday
'We/John walk(s)/was/is walking since yesterday.'

Prepositional Phrases can either be considered as truly selected dependents of the verbs, thus requiring the SF or as adjuncts thus trigering the LF. Compare for instance (16a vs 16b) and (17a vs 17b) where the PP complements either trigger a LF or a SF and a clear semantic difference is apparent.

(16) a. Zan/li pe/ti mars lor disab.
John/he PROG/PST walk.SF PREP sand
'John/He is/was walking on the sand.'=(location.)

b. Zan/li pe/ti marse lor disab.
John/he PROG/PST walk.LF PREP sand
'John/He is/was walking on the sand.'(=Directional.)

(17) a. Li pe al dan loto.
3SG PROG go.SF PREP car
'He intends to go by car.'

b. Li pe ale dan loto.
3SG PROG go.LF PREP car
'Lit. He is going by car (as we speak)

(18)-(19b) show that the LF is again needed if the verb is followed by clauses. Nonetheless, a distinction needs to be made between the first example (18) and the other ones (19a-19b). LF is expected in (18) since it is followed by an adjunct clause but not in (19a-19b). It has been actually observed crosslinguistically that sentential complements are less integrated than phrasal ones. This is the case for instance in German where they are extraposed and in incorporating languages where they are not incorporated, etc.

(18) Zan pa manze (*manz) [parski li malad].
John NEG eat (*SF) because 3SG sick
'John doesn't eat because he's sick.'

(19) a. Zan panse (*pans) [(ki) banann la pa bon].
John think (*SF) COMP banana DEF NEG good
'John thinks (that) the banana is not good.'

b. Mo pa kone (*konn) [kifer li pa kontan mwa/kot Mari ete].
1SG NEG know (*SF) why 3SG NEG like 1SG.ACC/where Mary COP
'I don't know why he doesn't like me/where Mary is.'

Notice also that linear order is important in case of two complements. In (20a-20b), the verb *demande* has two complements. In the first case, the verb is LF because the first complement is a clause while in (20b), the verb is SF because the first complement is not a clause.

(20) a. Mari inn demande (*SF) [kiler la] [ar tou dimounn].
Mary PERF ask.LF (*SF) what-time DEF with all people
Lit. 'Mari asked what time it was to everyone.'

b. Mari inn demann (*LF) [ar tou dimounn] [kiler la].
Mary PERF ask.SF (*LF) with all people what-time DEF
'Mari asked everyone what time it was.'

Hence, it seems that linear order and the type of complement are decisive when it comes to selection of the verb form.

3.2.1 Extraction

Extraction of the complement calls for the LFs : extraction of a NP in (21a), of an adverb in (21b) and of a PP in (21c).

(21) a. Tibaba ki mo mama ti veye (*vey) toule zour.
DP.baby COMP 1SG.POSS mother PST look-after (*SF) every day
'It's little babies that my mother looked after every day.'

b. Kimanyer Zan koze (*koz)?
How John talk.LF (*SF)
'How does John talk?'

c. Kot Zan pe marse (*mars)?
where John PROG walk.LF (*SF)
'Where is John walking?'

Unlike extractions, left or right dislocated complements call for SFs since a pronoun is needed as illustrated .

(22) a. Kari la, Zan ti manz (*manze) li.
curry def John PST eat.SF (*LF) 3SG
'The curry, John ate it.'

b. Zan ti manz (*manze) li, kari la.
John PST eat.SF (*LF) 3SG curry DEF
'John ate it, the chicken.'

This provides another argument in favor of a lexical-based analysis of extraction (Abeillé et al. (1998); Miller and Sag (1997); Crysmann (2005); Bouma et al. (2001)).

3.2.2 Passives

Let us note that LFs/SFs alternation is not available in the passive voice (23a)-(23b).

(23) a. Zan ti'nn oblize (*obliz) vann so lakaz.
John PST'PERF oblige.LF (*SF) sell 3POSS house
'John was being obliged to sell his house.'

b. Mari pe gagn bate (*bat) ar so mama.
Mary PROG get beat.LF (*SF) with 3SG.POSS mother
'Mary is getting beaten by her mother.'

We thus consider that we have another lexical entry for passive forms[8].

To sum up this section, we have seen that SFs appear when the verb has a canonical (non-clausal) complement and LFs appear when the verb is sentence-final or if it is followed by clausal complements or adjuncts. In the following

[8]For a descriptive analysis of passives in Mauritian see Veronique (1984).

section, we will see that there are cases where LFs are possible with non-clausal complements in declaratives, that is, where the SF is generally expected as previously demonstrated.

4 Discourse Constraints: Verum Focus

Interestingly, LFs may appear with a canonical complement in the context of specific dialogical moves. In (24b) for instance, we have an example of "proposition denial" and the reverse is also available (25b) (Geurts (1998)).

(24) a. SPEAKER A: Mo pe al kwi kari poul parski Zan kontan manz kari poul.
(I'm going to cook chicken curry because John likes to eat chicken curry.)

b. SPEAKER B: Be non. Zan pa MANZE kari poul.
But no. John NEG eat.LF curry chicken
'No, John doesn't EAT chicken curry.'

(25) a. SPEAKER A: Mo bizin al kwi enn lot zafer parski Zan pa manz kari poul.
(I need to cook something else because John doesn't eat chicken curry.)

b. SPEAKER B: Be non. Zan MANZE kari poul.
But no. John eat.LF curry chicken
'No, John EATS chicken curry.'

LFs are also possible in what Godard and Marandin (2006) call an "instance of deferment" (26b) and in incredulity questions (26d). However, these constructions are not necessarily associated with utterances because they can be embedded under verbs of perception, speech and opinion.

(26) a. SPEAKER A: Ki sa djaket la pe fer la? Mo ti zet tou bann vye zafer. (What is this jacket doing here? I threw away every old stuff.)

b. SPEAKER B: To ti ZETE sa djaket la?
2SG PST throw DEM jacket DEF
'Lit. You THREW away this jacket.'

c. SPEAKER B: Mo pa kone ki pou manze? Kapav rougay dan frizider la! (I don't know what to eat. Maybe the rougay in the fridge).

d. SPEAKER A: To pou MANZE sa rougay la!!!??
2SG IRR eat.LF DEM rougay DEF
'You will EAT this rougay?' (Hertz and LiPookTan (1987))

(27) Mo ti krwar Mari pa MANZE (*MANZ) kari poul!
1SG PST think Mary NEG eat.LF eat.SF curry chicken
'I thought Mary don't EAT chicken curry.

In their analysis of verb forms in Mauritian, Hertz and LiPookTan (1987) note that LFs can appear with complements (26d) and analyze this as contrastive focus. One argument against contrastive focus is the fact that the LF is not available as in (28a) and in (28b) on the second verb when a contrast or alternative is available.

(28) a. Li pa ti MANZE kari la, li ti (*DEVORE) devor kari la!.
3SG NEG PST eat.LF curry DEF, 3SG PST (*devour.LF) SF curry DEF
'He didn't EAT the curry, he devoured it.'

b. Zan pa ti DONN Mari liv la, li ti PRET (*prete) li.
John NEG PST give Mary book DEF, 3SG PST lend.SF (*LF) 3SG.ACC
'John didn't give Mary the book, he lent it to her.'

We also argue against verb focus since the LF is not possible in cases of narrow focus in an answer to a question as in (29b).

(29) a. Ki to'nn fer ar poul la? (What did you do with the chicken?)

b. Mo'nn MANZ (*MANZE) li.
1SG'PERF eat.SF LF li
'I ate chicken.

We believe instead that the phenomenon here is Verum focus, that is to say LFs with complements emphasize the truth or falseness of the proposition expressed by the sentence. Verum focus is used to highlight aspects of the polarity of the proposition expressed by the clause (Höhle (1992)). Indeed, the contexts we have seen are based on polarity reversal (often illustrated by *non* in both (25b)-(24b)). Verum focus as defined by Höhle (1992) does not require the proposition it asserts to have been explicitly evoked in the previous discourse (30b)).

(30) a. SPEAKER A: Dokter dir fime pa bon pou lasante. (Doctors say that smoking is bad for health.)

b. SPEAKER B: Lakoz samem mo'nn ARETE fime.
because this 1SG'PERF stop.LF smoke.LF
'This is why I STOPPED smoking.

LFs with non-clausal complements are possible only with declaratives which convey assertions, incredulity questions and so on, but are excluded with interrogatives, exclamatives and imperatives. If the phenomenon is Verum focus, this is expected.

(31) a. *Kisannla ki'nn MANZE roti? (Who ATE the roti?)

b. *MANZE kari poul la! (EAT the chicken curry!)

c. *Ala li MANZE roti sa boug la! (How he EATS roti this man!)

A final argument involves embedding. As said earlier, declaratives with LFs can be embedded under verbs of saying (*dir*-'to tell') or propositional attitudes (*krwar*-'to believe') but not under mandative (*le*-'want'), decidative predicates (*deside*-'to decide') or factive predicates (*kone*-'to know').

(32) a. Mo ti krwar Mari pa MANZE kari poul!
1SG PST think Mary NEG eat.LF curry chicken
'I thought Mary didn't EAT chicken curry.'

b. To pa ti dir mwa (ki) to pa MANZE kari poul!!!??
2SG NEG PST tell 1SG.ACC that 2SG NEG eat curry chicken
'Didn't you tell me that you don't EAT chicken curry!?

c. *Mo kone ki Zan MANZE kari poul.
1SG know that John eat.LF curry chicken
'I know that John EATS chicken curry.

d. *Mo'nn deside (ki) li MANZE kari poul.
1SG'PERF decide that 3SG eat.LF curry chicken
*'I've decided that he/she EATS chicken curry.'

Based on Ginzburg and Sag (2000)'s semantic ontology, clauses with LFs having complements should be of content type *proposition* and not *outcome* or *fact*. This is again expected with Verum Focus[9].

4.1 The copula

In Henri and Abeillé (2007), we argue that the copula *ete* is peculiar and has no null counterpart (whether as an empty element as has usually been suggested Baker and Syea (1991); Syea (1997) or as a phonologically empty element Bender (2001)). Recall that the copula in MC appears in extraction contexts. Based on the distribution of weak pronouns, TMA markers and the negator, we argue against a null copula in declaratives. Seuren (1990) proposes that *ete* should be considered as the long form and the short form as an empty element. A strong argument supporting our idea that the copula doesn't undergo alternation concerns Verum Focus. If *ete* was a LF, we would expect it in Verum focus contexts (33b).

(33) a. SPEAKER A: Zan pa'nn vinn lekol zordi. Li malad. (John didn't come to school today. He's sick.)

b. SPEAKER B: *Zan ETE malad?
John COP sick
'John IS sick?

[9]For a preliminary study of the prosody of such constructions see Henri et al. (2008).

We thus admit another “verbal class" corresponding to the copula which has only one form with specific constraints. (*cf.* Table (3)). We summarize our findings as follows:

(34)

Environment	SF	LF
V with canonical phrasal CPLTS (NPs,APs,ADVPS,VPs,PPs)	yes	no
V with no CPLTS	no	yes
V with adjuncts	no	yes
V with clausal CPLTS	no	yes
Extracted CPLTS	no	yes
Verum Focus	no	yes

Hence MC verb form alternation is subject to both syntactic and discourse constraints (see section 6 for a discussion on other languages).

5 A constraint-Based account within HPSG

The analysis we propose is developed in the framework of HPSG (Head-Driven Phrase Structure Grammar (Pollard and Sag (1994); Sag et al. (2003); Ginzburg and Sag (2000))). Within a constraint-based framework like HPSG, (head) features are defined in terms of type-hierarchies. We redefine the attribute VFORM, which is a **HEAD** value, with two values *long* and *short* to account for the types of verb available in MC. Non-alternating verbs, that is those that have the same form in the different environments we described, have an underspecified VFORM value.

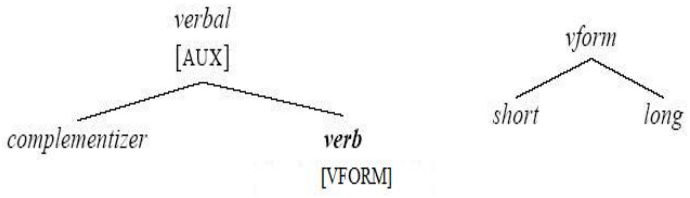

Figure 1: Type Hierarchy redefined

Notice also that we keep the feature AUX as a value of *verbal*. This is because we want to account for sentences where the complementizer *pou* is present. We define two lexical constraints to account for the occurrence of LFs and SFs. We put a lexical constraint on the verb: SFs need obligatorily to be followed by at least one non-clausal complement (35). We further define a lexical constraint on the occurrence of LF verbs (36).

(35) $\begin{bmatrix} \textit{verb} \\ \text{HEAD} \mid \text{VFORM} \quad \textit{short} \end{bmatrix} \Rightarrow \begin{bmatrix} \text{COMPS} \left\langle \boxed{2}\textit{non-clause} \right\rangle \oplus \textit{list} \end{bmatrix}$

(36) $\left[\begin{array}{l} \textit{verb} \\ \text{VAL}\left[\text{COMPS} \quad \textit{list(clause)}\right] \end{array}\right] \Rightarrow \left[\text{VFORM} \quad \textit{long}\right]$

Notice that we leave the subject unspecified meaning that pro-drop is possible in both cases. In (35), the rule says that SFs are available iff the first element on the COMPS list is of type phrasal, while rule (36) says that if the element on the COMPS list is empty or clausal type, then we get a LF.

(37) a. Ti manz (*manze) poul pou nwel.
PST eat.SF (*LF) chicken for christmas
Lit. 'Ate chicken for christmas.'

b. Ki ti manze (*manz) pou nwel?
what PST eat.LF (*SF) for christmas
Lit. What did eat for christmas?

5.1 Formalizing Verum Focus

We follow Webelhuth (2007) in representing focused elements in a special subpart of a structured CONTENT. Recall that Verum Focus is a focus on polarity which is expressed as a boolean feature at the SOA level.

(38) $\left[\text{SOA}\left[\begin{array}{l} \textit{partioned-soa} \\ \text{NUCLEUS} \ \textit{rel} \\ \text{FOC} \ \textit{list(rel)} \end{array}\right]\right]$

We admit that in MC we have three types of LF verbs- normal ones, passives and focused verbs. To account for the occurrence of LFs in declaratives, we propose a constraint which says that a clause which is of type *proposition* and has a partitioned SOA which contains a focus on the (positive or negative) polarity of the clause.

(39) $\left[\begin{array}{l} \textit{clause} \\ \text{CAT}\left[\text{HEAD} \ \textit{verb}\right] \\ \text{CONT}\left[\begin{array}{l} \textit{proposition} \\ \text{SOA}\left[\begin{array}{l} \text{POLARITY} \ \boxed{2}\left\{+/-\right\} \\ \text{FOC}\left\langle\left[\begin{array}{l} \textit{polarity-rel} \\ \text{ARG} \ \boxed{2} \end{array}\right]\right\rangle \end{array}\right] \end{array}\right] \end{array}\right] \Rightarrow \left[\text{HEAD}\left[\begin{array}{l} \textit{verb} \\ \text{VFORM} \quad \textit{long} \end{array}\right]\right]$

To conclude our paper, we provide some comparative data from other languages which display the same type of alternation, particularly French and other French-based Creoles (Louisianese and Haitian) and some (possible) substrates (Hausa and Tswana).

6 Diachronic Explanation and Comparison with other Languages

Verbal alternation between SFs and LFs is found in other languages and we look at these related to MC.

6.1 French

Two types of verbal alternation can be found in French. First, in standard written French, the past participle agrees with with the direct object when it is not canonically realized.

(40) a. Pierre a écrit (*écrite) une lettre
Peter AUX (*written) written+AGR IND.FEM letter
'Peter has written a letter.'

b. La lettre que Pierre a écrite (*écrit)
DEF.FEM letter that Peter AUX written+AGR (*written)
'The letter that Peter has written.'

c. La lettre, Pierre l'a écrite (*ecrit)
The letter Peter PRO.CL'AUX written+AGR (*written)
'The letter, Peter has written it.'

We have a sort of LF **/ekrit/** and a SF **/ekri/** with respect to how the complement is realized. A canonical object triggers a SF while a non-canonical object triggers the LF. In the 17th-18th century, there were cases (observed by Vaugelas) where the SF was possible if the verb had another complement[10]:

(41) La lettre que Pierre a écrit pour vous
def letter that Peter has written for you
'The letter that Peter has written for you.'

Second, as argued by Veenstra and Becker (2003), spoken French simplified verbal morphology could be analyzed in terms of SFs and LFs. According to them, SFs/LFs alternation is a L2 phenomenon in Mauritian: **/ʒ(ə)/ty/õ/il mãnʒ/, /vu mãnʒe/ (present); /ʒ(ə)/ty/õ/il a mãnʒe/ (past)**. Their hypothesis is that second language speakers must have reanalyzed and grammaticalized this paradigm in Mauritian Creole and this should also be expected in other French-Based Creoles. We will consider here Haitian and Louisianese (Degraff (2001); Neumann (1985)). Other possible explanations come from the substrate: the SFs/LFs alternation could

[10]Past participle agreement was more alive in the 18th century and was also heard on final vowel participles.

- J'ai lu la lettre. (**/ly/**)
- La lettre que j'ai lue. (**/ly:/**)

be residuals of African languages. We look at Hausa and Tswana data (Crysmann (2005); Creissels and Robert (1998); Veenstra (2007)) in section 6.3.

6.2 Other French-based Creoles : Haitian and Louisianese

In Haitian, the syntactic constraints seem to be quite similar to MC in (42a-42b) but apparently the SFs/LFs selection is also subject to dialectal variation. As Degraff (2001) suggests, there are variations where the long form is available with a canonical complement. However compared to MC, pronominal objects prevent verbal truncation (42c).

(42) a. Konbyen dan Tonton Bouki genyen (*gen)?
how-many tooth uncle Bouki has.LF (*SF)
'How many teeth does Uncle Bouki has?

b. Tonton Bouki gen (*genyen) 32 dan l.
Uncle Bouki has.SF (?LF) 32 teeth 3SG
'Uncle Bouki has (all of) his 32 teeth.

c. Tonton Bouki te gade (*gad) li.
Uncle Bouki PST look.LF (*SF) 3SG.ACC
'Lit. Uncle Bouki watched it.

An interesting point here again seems to be the occurrence of LFs in declaratives with canonical complements. According to our investigations the variation Degraff (2001) was suggesting is strongly correlated to what he himself called emphasis or some peculiar prosodic prominence. Basically, LFs in declaratives seem to be another case of Verum Focus in Haitian marked on the verb, where the epistemic implicature is that Uncle Bouki watched the movie (43).

(43) Tonton Bouki te GADE (*gad) yon fim.
Uncle Bouki PST look.LF (*SF) IND film
'Lit. Uncle Bouki watched a movie.

As for Louisianese, the difference is more outstanding. LFs/SFs alternation is used to mark tense and aspect. SFs are used in the present or habitual, imperative, after presentatives (44a)-(44b)[11] while LFs are used in the past or progressive (45b).

(44) a. Zordi le klos son (*sone) a onzer.
today the bell ring.SF (*LF) at eleven-hour
'Today the bell rings at eleven.'

b. Manj, manj, (*manje) ça va dèt frò
eat.SF eat.SF (*LF) it IRR get cold
'Eat, eat, it's going to get cold.'

[11] http://learnlouisianacreole.wordpress.com/category/12f-imperatives/

(45) a. Le klos ape sone (*son) aster.
the bell PROG ring.LF SF now
'The bell is ringing now.'

b. Yer le klos sone (*son) a witer.
yesterday the bell ring.LF SF at eight-hour
'Yesterday the bell rang at eight.'

Hence Louisianese departs from the constraints applying to the alternation SFs/LFs in Mauritian.

6.3 Substratic Influences

Disjunctive versus Conjunctive Verb Forms are the terms that have usually been used to define the alternation between long forms of verbs for some African languages (Tswana, Zulu for instance). Basically Disjunctive Forms are LFs and Conjunctive Forms are SFs. In Tswana, in the present positive tense, for example, the conjunctive/disjunctive distinction can be distinguished easily by a specific marker[12]. The conjunctive thus appears when the verb is followed by a complement while the disjunctive forms appears when it doesn't take any complement.

(46) a. di-kgomo di fula kwa noke-ng.
CL10-cow SM10 graze LOC river-LOC
'The cows graze/are grazing at the river.'

b. di-kgomo di a-fula
CL10-cow SM10 DISJ-graze
'The cows graze/are grazing.'

Creissels and Robert (1998) also argue that there are discourse constraints which apply when it comes to selection of disjunctive over conjunctive forms. For instance, focused postverbal complements trigger the disjoint form with a focus on the verb and is coreferent with the subject (47).

(47) Ba a-bina le bone.
SM3PL DISJ-dance CONJ 3PL
'They too dance/are dancing.'

The case of Hausa (Crysmann (2005)) is more similar to MC since SFs appear with canonical non-clausal complements and LFs with extraction and, like MC, the alternation does not concern all verb classes. This is illustrated in (48a) where the verb has a canonical complement and (48b) where the verb has no complement. However, in (48b), the verb would still be LF if it had a pronominal complement and this is where MC and Hausa differ. Hence pronominal affixation in Hausa triggers the LF in Hausa.

[12]The examples are taken from Creissels and Robert (1998); McCormack (2006).

(48) a. Na: ka:mà ki:fi.
1S.COMPL.ABS catch.V.GR1.C fish
'I caught fish.' (SF)

b. Na: ka:mà: (shi).
1S.COMPL.ABS catch.V.GR1.A/B (him)
'I caught it/(him). (LF)

Crysmann (2005) says that Final Vowel Shortening (FVS) is a morphosyntactic property of Hausa and is sensitive to argument realization (49a) and extraction (49b)). He argues that in cases of ditransitives, it is the strict argument realization pattern of the language which trigger the LF (49a).

(49) a. Na: ka:mà: wà Musa ki:fi.
1S.COMPL.ABS catch.V.GR1.D=A for Musa fish
'I caught fish for Musa.' (LF)

b. ki:fin dà na ka:mà:
fish.def comp 1S.COMPL.ABS catch.V.GR1.A
'The fish I caught.' (LF)

The author also notes that previous analyses of the factors triggering FVS wrongly mention adjacency as a determining factor (50a).

(50) a. Ya: shuùka kuma audùga:. (Hausa)
he.CMPL.ABS planted.V.GR1.C also wheat
'He also planted wheat.'

b. Li manz (*manze) toultan bann kosonnri. (Mauritian)
3SG eat.SF (*LF) always PLU rubbish
'He/She always eat rubbish.'

Hence as in Mauritian, an adverb intervening between the verb and its phrasal complement doesn't affect selection of the SF. To sum up, short forms in all the languages described above, except Louisianese, are definitely syntactically constrained and we represent these constraints in the table below:

(51)

Language	Types of verbs	Types of cplts	cplt realization
Mauritian	certain verbs	non clausal	canonical
French	past participles	direct object	canonical
Haitian	certain verbs	non pronominal	canonical
Louisianese	certain verbs + certain tenses	non pertinent	
Tswana	certain verb classes	unfocused complements	canonical
Hausa	certain verb classes	non-clausal	canonical

7 Conclusion

In this paper, we have argued that MC has two verb forms which are constrained by the type of complement they take. Short Forms occur if the verb has a canonical phrasal complement while Long Forms occur when the verb has no complements or adjuncts or clausal complements. For these constructions, we have proposed two lexical constraints to account for the syntactic occurrence of SFs and LFs. An interesting fact concerned the selection of LFs also available (with clausal complements) in the context of Verum Focus. In the last section we showed that the phenomenon could be a convergence of L2 acquisition of the superstrate (French) which actually can be found in other French-based Creoles and of the same phenomenon available in substrates, namely Hausa, Tswana or Zulu and certainly other African languages (which we didn't describe here). A more detailed description and analysis still needs to be done on the prosody and discourse constraints of the language.

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