Degree adverbs in Mauritian Creole

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From a semantic point of view, degree adverbs can be analysed as modifying a value on a scale, which can be an intensity scale for properties, or a quantity scale for objects or events (Kennedy & McNally 2005); some are specialized for a certain type of scale (an intensity scale for *extremely*) or underspecified (*a lot* is compatible with all scales). From a syntactic point of view, degree adverbs usually exhibit syntactic constraints and can only combine with certain categories. In English, *very* only combines with adjectives and adverbs (1a), while *very much* only with verbs (1b). *A lot* combines with verbs (1c) and *a lot of* with nouns (1d).

- (1) a. *very quick / very quickly*
 - b. John likes this book very much.
 - c. John likes this book a lot/ goes to the movies a lot.
 - d. John reads a lot of books / has a lot of luck / * has very much luck.

Abeillé & Godard (2003) show that French degree adverbs may be both syntactically and semantically polymorphic. They analyze *trop (too/ too much/ too many)* as a left modifier of adjectives, adverbs, non finite verbs and *de* marked nouns, and as a complement of verbs. It is compatible with all types of scale.

- (2) a. *Paul souffre trop*. 'Paul suffers too-much'
 - b. *Paul va trop chez le dentiste*. 'Paul goes too-often to the dentist's'
 - c. Paul a trop de livres. 'Paul has too-many books'
 - d. Paul est trop grand. 'Paul is too tall'
 - e. *Paul roule trop vite*. 'Paul drives too fast'

We show that in Mauritian, a French based creole spoken in Mauritius, degree adverbs may exhibit a purely semantic selection. High degree adverbs *mari* ('very') and *boukou* ('a lot') may combine with all syntactic categories, but the former only modifies predicates associated with an intensity scale, while the latter selects predicates with a quantity scale. Comparative degree adverbs also come in pairs (*pli, plis,* 'more'; *mwin, mwins* 'less') and select the type of scalar predicates they combine with. The extreme syntactic polymorphism of Mauritian degree adverbs is also shown in the verbal domain, since they trigger the verbal form alternation (Henri & Abeillé 2008, Henri 2010): as adjuncts they combine with the long verbal form (LF) (3a), and as complements with the short verbal form (SF) (3b).

(3) a. Mo soulie plis briye. 'My shoe shines-LF more'

b. *Mo soulie briy plis.* 'My shoe shines-SF more'

We provide an HPSG analysis of these degree adverbs, since HPSG is well suited to account for their polymorphism in terms of underspecification.

1. High degree adverbs in Mauritian Creole

For an excessive degree, Mauritian has a highly polymorphic adverb, *tro*, which resembles French *trop*, in combining with all syntactic categories, and with all scalar predicates:

- (4) a. *Paul pe gagn tro per* 'Paul has too-much fear'
 - b. *Paul tro soufer* 'Paul suffers too-much'

- c. Jeanne so rob tro long 'Jeanne's dress is too long'
- d. Paul roul tro vit 'Paul drive too fast'
- e. Paul bwar tro dilo 'Paul drinks too-much water'
- f. Paul tro al kot dantis 'Paul goes to the dentist's too-much'

For high degrees, Mauritian has *boukou*, from the French *beaucoup* ('a-lot') but did not inherit *très* ('very'). It has developed a form *mari*, meaning 'very', originally from the noun *mari* 'husband', which also gave an adjective meaning 'superior'. Mauritian *boukou* combines with verbs (5a) and with nouns (5b), associated with a quantity scale, and with event denoting adjectives (7b). With predicates that have an intensity scale (5c, d), there is some dialectal variation (maybe due to the influence of French *beaucoup* which combines with all scalar verbs), but it is disallowed or dispreferred by most speakers.

- (5) a. *Paul al kot dantis boukou*. 'Paul goes to the dentist's a lot'
 - b. Paul ena boukou liv. 'Paul has many books'
 - c. %Paul admir Jean boukou. (Intended meaning) 'Paul admires Jean a lot'
 - d. *Paul pe gagn boukou per. (Intended meaning) 'Paul has a lot of fear'

Mauritian *mari*, on the other hand, combines with any category associated with an intensity scale: predicative nouns (6a), psychological verbs (6b), gradable adjectives (6c) and adverbs (6d); it does not combine with countable nouns (6e) nor iterative verbs (6f).

- (6) a. *Paul pe gagn mari per*. 'Paul has much fear'
 - b. Paul mari soufer. 'Paul suffers very-much'
 - c. So rob ti mari long. 'Her dress was very long'
 - d. Paul roul mari vit. 'Paul drive very fast'
 - e. *Paul ena mari liv (Intended meaning) 'Paul has many books'
 - f. **Paul mari al kot dantis.* (Intended meaning 'Paul goes to the dentist's a lot')

There is thus a semantic division between *boukou* and *mari*. *Boukou* is restricted to predicates with a quantity scale (quantity of objects or quantity of events), whereas *mari* selects gradable predicates (with an intensity scale). For certain adjectives like *malad* 'sick', which can have both scales (intensity or event quantity), both degree adverbs are possible, with different interpretations.

- (7) a. *Paul mari malad*. 'Paul is very sick'
 - b. *Paul malad boukou*. 'Paul is often sick'

Syntactically, *mari* occurs to the left of the element it modifies, whereas *boukou* precedes nouns and follows other categories. Moreover, *boukou* can be a complement of verbs and, like nominal complements (8b), trigger the short form (SF) of the verb (8c).

- (8) a. *Paul manze /*manz.* 'Paul eats-LF.'
 - b. *Paul manz pom.* 'Paul eats-SF apples'
 - c. *Paul manz boukou*. 'Paul eats-SF a lot'

2. Comparative degree adverbs

For degree comparison, Mauritian has two forms for the superiority adverb: *pli* and *plis* ('more'), and two forms for the inferiority adverb: *mwin* and *mwins* ('less'). They have a complementary distribution, with a semantic specialisation and some syntactic constraints: *pli* and *mwin* select predicates associated with an intensity scale, and only combine with non-verbal categories (9), whereas *plis* and *mwins* (10) combine with any predicate associated with a quantity scale (quantity of objects and quantity of events), as well as with verbs with an intensity scale (10d).

- (9) a. *Paul inn gagn pli / mwin per ki Jean.* 'Paul had more / less fear than Jean'
 - b. Paul ti pli / mwin gran ki Jean. 'Paul was more / less tall than Jean'
 - c. Paul roul pli / mwin vit ki Jean. 'Paul drives more / less fast than Jean'
- (10) a. Paul ena plis / mwins liv ki Marie. 'Paul has more / less books than Marie'
 - b. Paul al kot dantis plis / mwins ki Jean.'Paul goes to the-dentist's more / less than Jean'
 - *Paul inn plis / mwins absan ki Jean sa lane la.*'Paul has-been more / less absent than Jean this year'
 - d. *Paul admir livla plis / mwins ki fimla*.'Paul admires the-book more / less than the-movie'

Plis and *mwins* can also be complements of verbs and trigger the short form (3).

3. A HPSG analysis of MC degree adverbs

3.1. Degree adverbs as polymorphic adjuncts

As adjuncts, degree adverbs may select the syntax and the semantics of the head they combine with. Following Kennedy and McNally (2005), we analyse degree adverbs as modifiers taking as argument a scalar predicate. Predicates with an intensity scale are gradable adjectives and adverbs, some predicative nouns (*per* 'fear') and some verbal predicates (*admir 'admire', soufer 'suffer'*), while those with a quantity scale are mass (*dilo*) and count nouns (*liv*) and iterated count event verbs (*ale* 'go') or adjectives (absan 'missing'). We thus adopt a scale attribute with the following values.



A degree adverb like *tro* ('too much') can modify any scalar predicate, whereas *boukou* ('a lot') and *mari* ('very') specify a subtype of scale.

tro

 $boukou mari \\ \begin{bmatrix} SYN \ [HEAD \ [adv \\ MOD \ [SEM \ [SCALE \ quant - scale] \end{bmatrix} \end{bmatrix} \begin{bmatrix} SYN \ [HEAD \ [adv \\ MOD \ [SEM \ [SCALE \ -VALUE \ high] \end{bmatrix} \end{bmatrix} \\ \begin{bmatrix} SYN \ [HEAD \ [adv \\ MOD \ [SEM \ [SCALE - VALUE \ high] \end{bmatrix} \end{bmatrix}$

The comparative adverbs exhibit a syntactic and semantic selection: *pli* ('more') and *mwin* ('*less'*) combining with non-verbal categories associated with an intensity scale, whereas *plis* ('more') and *mwins* ('less') combine with verbs, or with non-verbal categories associated with a quantity scale.

pli, mwin plis, mwins $\begin{bmatrix} adv\\ MOD \begin{bmatrix} SYN [HEAD non - verbal]\\ SEM [SCALE intens - scale] \end{bmatrix} \begin{bmatrix} adv\\ MOD [SYN [HEAD verb] V SEM [SCALE quant - scale]] \end{bmatrix}$

3.2. Degree adverbs in the nominal domain

We analyse degree adverbs as adjuncts, and not as specifiers, in the NP domain. They combine with plural count and mass nouns, which in Mauritian can be used as bare NPs, and are associated with a quantity scale (11).

- (11) a. *boukou dilo* 'a lot of water'
 - b. *mwins rob* 'less dresses'
 - c. plis lafarinn 'more flour'

Mauritian has no number inflection, but count nouns may have a plural marker *bann 'many'* (Allessaib 2012), which precedes adjectival modifiers and may be preceded by specifiers (possessive *mo*). Contrary to specifiers, degree adverbs are not compatible with *bann*. Like *bann*, they precede adjectival modifiers. Contrary to *bann*, they are compatible with a mass interpretation (11a, c).

- (12) a. *Mo bann rob* 'my dresses'
 - b. *bann long rob* 'long dresses'
 - c. **tro bann liv, *boukou bann liv* ('too many books', 'a-lot many books')
 - d boukou long rob 'a lot of long dresses'
 - e. ? bann dilo (only reading : 'several types of waters')

Predicative nouns, on the other hand, like *per* 'fear', may be associated with an intensity scale, and can be modified by *mari* or *pli*.

3.3. Degree adverbs as verbal complements

Mauritian verbs have a short and a long form, and their distribution depends on syntactic and discourse factors. As shown by Henri (2010), the short form appears with a canonical non clausal complement (13b), while the long forms appears elsewhere: when the verb stands alone (13a), with a clausal complement (analyzed as extraposed), when the complement is extracted (analysed as a filler), and with adjuncts (13c). The long form may also appear with a complement in the case of verum focus, which we leave aside here.

- (13) a. *Paul inn manze / *manz.* ('Paul has eaten-LF')
 - b. *Paul inn manz pom.* ('Paul has eaten-SF apples')

c. Paul inn manze / *manz yer / sirman. ('Paul has eaten-LF yesterday/ probably')

Lexical constraint on Mauritian verbs (Henri 2010): *verb* [HEAD [VFORM short]] => [VAL [COMPS nelist]]

Interestingly, manner (*well*, *quickly*) and degree adverbs may trigger the short verbal forms (14a) while other adverbs, like temporal adverbs (*yesterday*) or modal adverbs (*probably*) don't (13c). Thus, like manner adverbs, degree adverbs may have a double life, as verbal adjuncts (14b, d) or verbal complements (14a, c). Notice that the verb has a long form in (14b, d) and a short form in (14a, c).

(14)	a.	Paul manz bien. ('Paul eats-SF well')
	b.	Paul bien manze. ('Paul well eats-LF')
	c.	Paul koz tro. ('Paul speaks-SF too-much')
	d.	<i>Paul tro koze</i> . ('Paul too-much-LF speaks')

Degree and manner adverbs often form a natural class: they both modify predicates, and not propositions like modal adverbs; they both make reference to a standard, contrary to temporal or locative adverbs. We follow Bouma et al. (2001), Abeillé & Godard (2003) in having a lexical rule, or lexical construction, which optionally adds manner and degree adverbs on the COMPS list of verbs (15).

(15) lexical rule $\begin{bmatrix} verb \\ SYN \begin{bmatrix} HEAD [0] \\ VAL COMPS L \end{bmatrix} => \begin{bmatrix} SYN [VAL COMPS L + \langle \begin{bmatrix} deg - man - adv \\ MOD \begin{bmatrix} HEAD [0] \\ SEM [1] \end{bmatrix} \rangle \end{bmatrix}$

An adverb like *pli* which cannot modify verbs, cannot be added as a complement, while an adverb like *plis* can. An adverb like *boukou* only appears as complement of verbs associated with a quantity scale. An adverb like *mari* never appears as a complement, and is constrained to occur to the left of the category it modifies.

Conclusion

Mauritian degree adverbs exhibit a semantic specialization combined with an extreme syntactic polymorphism. We analyse them as adjuncts but an analysis as functors (Van Eynde 2007) should also be possible. Their entering the short vs long verbal form alternation also provides a new empirical argument for the adverb as complement analysis proposed by Bouma et al. 2001.

Selected references

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