

How complex is Creole Inflectional Morphology?

The case of Mauritian

Olivier Bonami¹ & Fabiola Henri²

The issue: creole complexity

- When Creoles have morphology, it is expected to be 'simple' (Plag, 2006)
- ☞ simpler than the morphology of the lexifier, 'unmarked', 'easy', 'natural', 'canonical', etc.
- We attempt to address this issue in detail in the case of Mauritian Creole.
- We show that Mauritian inflection is simple only in some respects.

The data set

- Based on (Carpooran, 2009), the first monolingual dictionary of Mauritian with standardized orthography, phonological and etymological information.
- 2079 phonologically distinct verbal entries
- 30% have syncretic LF and SF
- 1850 inherited from French verbs, 34 from other categories, the rest not inherited from French

Mauritian morphology

- Most vocabulary inherited from French (with phonological adaptations).
- No inflection inherited from French. In particular no TMA or agreement morphology.
- Still, Mauritian verbs have two forms: the long form (LF) and the short form (SF).
- The LF almost always derives from the Fr. infinitive or past participle (Veenstra, 2004)
- The SF usually resembles a Fr. PRS.SG

LF	avete	amāde	apavet	atan	bāde	ban	būje	būje	demāde	egziste	feə	feə	fini	fūz	fūze	kōsiste	vesikle	kuveə	mōtə	mine	paəti	pase	paste	poəte	sāti	soəti	vāde	vini
SF	avet	amād	apavet	atan	ban	ban	būj	būje	deman	egzis	feə	feə	fini	fūz	fūz	kōsiste	vesikle	kuveə	mōtə	min	paəti	pas	pas	poət	sāti	soət	van	vin

TRANS. 'stop' 'amend' 'appear' 'wait' 'bandage' 'ban' 'glow' 'mix' 'ask' 'exist' 'do' 'shoe' 'finish' 'freeze' 'curl' 'consist' 'recycle' 'cover' 'show' 'undermine' 'leave' 'pass' 'filter' 'carry' 'feel' 'go out' 'sell' 'come'

What morphology?

The alternation is not phonologically predictable

- Neither form is uniformly predictable from the other:

LF	brije	fini	vini	kōsiste	egziste	amāde	demāde
↓	↙ ↘	↓	↓	↓	↓	↓	↓
SF	brije brij	fini	vin	kōsiste	egzis	amād	deman
	'glow' 'mix'	'finish' 'come'	'consist' 'exist'	'amend' 'demand'			

LF	paste	pas	bāde	ban	fūze	fūz	feə	feə
↑	↘ ↙	↘ ↙	↘ ↙	↘ ↙	↘ ↙	↘ ↙	↘ ↙	↘ ↙
SF	pas	ban	fūz	feə				
	'filter' 'pass'	'bandage' 'ban'	'curl' 'freeze'	'shoe' 'do'				

The distribution is morphomic

Syntax The SF is used when the verb is followed by a nonclausal complement; the LF is used otherwise (Henri & Abeillé, 2008).

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

Discourse The LF is used under Verum Focus, even in the presence of a nonclausal complement (Henri, 2010).

Mo ti krwar Mari pa MANZE/*MANZ kari pou!
1SG PST think Mary NEG eat.LF/SF curry chicken
'I thought Mary DIDN'T eat chicken curry!'

Morphology Both forms are used as bases in attenuative reduplication: the output of the lexeme formation rule is the concatenation of the SF and the LF (Henri, 2010).

LF	SF	gloss	reduplicated form	gloss
sante	sant	'sing'	santsante	'hum'
reste	res	'stay'	resreste	'stay occasionally'
sorti	sort	'get out'	sortsorti	'get out occasionally'
balye	balye	'sweep'	balyebalye	'sweep carelessly'

Conclusions: creole complexity

Mauritian Creole turns out to be simpler than French only in limited respects

- Paradigms are smaller
- There are fewer distinct inflection patterns
- The relationship between morphosyntactic properties and exponents is just as opaque
- Predicting a paradigm cell on the basis of another is **not** simpler

☞ Presumably, Mauritian inflection is neither easier to learn nor easier to use.

Conclusions: morphological theory

Argues in favor of an abstractive vision of morphology (Blevins, 2006)

- Despite tiny paradigms the system relies heavily on implicational morphology
- The base form is the more complex form
- Postulating stems would complexify the description without adding any insight
- There is word-based lexeme formation

How complex is it?

Method

We use 4 ways of assessing the complexity of the relation between two cells:

- # of undecidables: inputs that give rise to different correct outputs.
- # of distinct morphophonological changes relating input to output
- Reliability of the best Exhaustive Categorical Nonlexical Rule, a hand-written rule attempting to capture all regular inflection
- Reliability of the MGL (Albright, 2003) trained on 2079 pairs

Determining the base form

	LF⇒SF	SF⇒LF
# of undecidables	1	13
# of patterns	7	10
Reliability of best ECNR	99.09%	90.43%
Reliability of the MGL	96.82%	93.18%

Conclusion: If one wants to argue that there is an oriented relationship between the two forms, the LF should be taken as the base form.

Comparison with French

We compare the LF⇒SF relationship in Mauritian to both the INF⇒PRS.SG and the PST.PCPL⇒PRS.SG relationships in French.

	LF⇒SF	INF⇒PRS	PASTP⇒PRS
# of undecidables	1	0	1
# of patterns	7	20	26
Reliability of best ECNR	99.09%	96.92%	96.49%
Reliability of the MGL	96.82%	96,27%	95,19%

NB scores for the MGL reliability for French are lowered by a limitation in the minimal generalization algorithm.

☞ Overall, the reliability of the French and Mauritian inflection system are barely different.

