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Borrowing from Bislama into Nkep (East Santo, Vanuatu): Quantitative and qualitative perspectives.

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1 Introduction

Ideologies about language contact tend to view it as a negative, if unpreventable, phenomenon. Linguists and lay users often talk about changes in one language that appear to be the effect of contact with another language as some form of decline. This has certainly been my experience in Vanuatu (SW Pacific), where everyone from university educated employees of the Vanuatu government through to everyday users of one of Vanuatu's many vernacular languages (the groups do not always overlap) venerate prelapsarian, purist views of vernacular languages (Cameron's 2013 notion of 'verbal hygiene' is directly applicable, as Cameron points out in her book, most efforts at verbal hygiene are not simply about prescribing and proscribing certain forms of language, they are ultimately about reifying power structures among language users). It seems that lexical borrowing between languages is seen as a particularly virulent threat to the health and vitality of vernacular languages. This may be simply because lexical change is relatively amenable to social comment, cf. Labov (1993), who proposes that lexical forms – like phonetic realisations – are highly accessible to the 'sociolinguistic monitor', a sociocognitive capacity that allows speakers to evaluate, control and comment on variation in language. However, it may also be because Ni-Vanuatu speakers have good reason for seeing lexical incursions from another language as the first stage in language shift. Other work within the variationist sociolinguistics tradition has noted these ideologies at play in communities speaking endangered (King 2008 on Chiac) or minority languages (Dubois & Melançon 1997 on Cajun).

In this paper, I will set language attitudes aside and explore the extent to which borrowing can be treated as a sociolinguistic variable. If borrowing indexes group language shift (as communities often believe), then it may be possible to observe the progress of change in a community using the sociolinguistic construct of apparent time. This approach is successfully adopted by Labov (2008) who looks at the influence of substrate languages on a regional variety of US English, and Meakins (2011) who draws on extensive knowledge about the indigenous languages and Aboriginal Kriol to analyse borrowing of forms among different aged speakers of Gurindji. To my knowledge, this systematic investigation of borrowing is rare; bridging, as it does, the methods, principles and concerns of

variationist sociolinguistics and language documentation. Crowley (2004) provides some quantitative data on borrowings into Sye and Nagy (2011) is a more substantial model for this approach, but her conclusions are equivocal: "[the potential for acquiring vocabulary across the lifespan] may prevent lexical items from serving as good tools for marking social difference" (2011: 379), but she emphasizes the need for further research on this. Sankoff (1972) is an early attempt to harmonise variationist sociolinguistic methods with an analysis of borrowing between languages, and we will return to her work in the last section of this paper.

The data I will be drawing from is taken from fieldwork in Hog Harbour, a village of about 1000 people in NE Santo in Vanuatu (15°8'0" S, 167°6'0" E). People in Hog Harbour know their language as Nkep; it is closely related to, and mutually intelligible with, Sakao (Guy 1972, Touati 2014, ISO 639-3 sku) spoken in Port Olry to the north.

In the next section, I introduce the phenomena under investigation. I then provide a quantitative analysis of the types and tokens of Bislama words borrowed into Nkep in my corpus. Clark's (2004) discussion of borrowings into Mele (also in Vanuatu) notes that theories of lexical gaps or prestige alone cannot account for all borrowings we observe. Clark leaves open the motivation for borrowing; I conclude by suggesting that Matras' (2012) analysis of code-switching as a signal of interpersonal misalignment and, hence, cognitive burden, is an informative lens through which to view the data.

2 Bislama borrowing into Nkep

Like many communities in Vanuatu, Hog Harbour has seen considerable social change in the last few decades. The village consists of about 1000 people and is situated on the East Coast Santo road. Since the upgrade of this road as a Millennium Challenge project, it has been relatively easy to drive between the village and the main township on the island. That town is known as *Kanal* in the local Bislama, *Santo* to many others, especially expats, and *Luganville* officially on the maps.[2] The one hour drive (down from two to three previously) has greatly improved health care, access to services, access to cash income sources and also to family who have moved from the village into Santo for work or marriage.

Some of the local cultural traditions are well maintained in Hog Harbour, but there is also considerable concern about the fragility of the local language and traditional knowledge given the increasing ease of contact with people in Kanal where the principal medium of communication is Bislama. Both younger and older speakers in Hog Harbour have expressed to me, directly or indirectly, their concern that the language is being eroded through contact with Bislama. As Nagy & Meyerhoff (2013) note, we find very similar discourses cropping up in interviews of spontaneous comments made by speakers of lesser-spoken and non-official languages in very different parts of the world. Typically, younger

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[2] One is reminded of the White Knight's lecture to Alice about the nature of naming things (Carroll 2000) – the fluidity of 'proper' names in Vanuatu (and perhaps more widely in Melanesia) would be an entirely different analysis of lexical variation.

speakers express shame and self-consciousness about their own borrowing and among older speakers we often hear concern about borrowings as a signal of language change and language loss.

For an Oceanic language, Nkep has highly marked phonotactics and complex morphosyntax in the verb phrase. It also has a very complex deictic system (cf. Touati 2013), though this is much less unusual for languages of the region. We might think that both kinds of structural and typological complexity would make the language particularly susceptible to contact-induced levelling of the marked aspects of the systems. However, in other work I have done on variation in the use of subject-verb agreement by speakers of different generations in Hog Harbour (Meyerhoff 2015), I have not found any clear evidence that there is significant loss of productive patterns in the verb paradigm.

However, verb morphology, while interesting to linguists does not tend to be what people typically comment on when they are expressing an opinion about borrowing. What they do comment on is the use of Bislama loan words in Nkep. In the examples in (1)-(3) the Bislama lexemes are underlined. Sentences (1a-3a) were produced by a young girl in Hog Harbour, and the sentences (1b-3b) are 'corrections' that I invited an adult language assistant in his 60s to offer with the corresponding lexemes highlighted with dashed underlining.

(1) a. *Necar pentem ün kala vorce*. (Janet, 10 years)[3]
    'Flying fox paints [the parrot] lots of colours.'
    b. *Necar mklep ün neria vorce.* (adult 'correction')
(2) a. *"Ale, yön rë na nacpentem i,"* (Janet, 10 years)
    'OK, me now I will paint you.'
    b. *"Ce, yön rë nacklenesp lüm."* (adult correction)
(3) a. *Be mcëth kala haan mheth.* (Janet, 10 years)
    'But he sees his colours are no good.'
    b. *Nara mcëth nelia[4] haan mheth.* (adult correction)

Notice two things about these sentences: first, there are borrowings from Bislama of verbs, nouns and sentential connectors; second, the borrowings are sometimes inflected with Nkep morphology. In (2b) the adult version also corrects the arguments that the verb 'paint' selects for. Janet has a canonical transitive construction (*yön nacpentem i* 'I will paint you') but in the adult version 'paint' selects a PP argument (*yön nacklenesp lüm* 'I will paint on/to you').

However, even though there is a widespread sense that this is a problem among the younger speakers of the language, it is immediately obvious when transcribing natural speech that some of these features occur in adults' narratives too. In (4)-(5), I give examples of similar borrowings in two adults' narratives. (I

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[3] I follow the orthographic norms promoted by a 2000 community workshop (facilitated by Catriona Malau, then Hyslop) and used in the basic readers prepared for primary school. Most consonants and vowels have their IPA realisation: <c> is used for a voiced velar fricative, <th> a voiced dental fricative, <ng> a velar nasal, <ü> a close front rounded vowel, <ö> a mid-close front rounded vowel, <ë> a mid-open front rounded vowel.

[4] A reviewer notes the alternation between *nelia* (3b) and *neria* (1b). This is what my fieldnotes have and there are some alternations between /l/ and other continuants which I do not yet fully understand.

have translated *nthem* and *nangelo* with different English words to retain the stylistic quality of John's story, but it is not clear that there is any denotational or connotational difference between the words.)

(4) *...temcëth vei wam n<u>them</u> ... <u>nangelo</u> nio camlro lohe*
'we saw that it was a <u>spirit</u> … <u>angels</u> were in the village'. (John, 40s)

(5) *camthël tevup nmër temcen <u>be</u> tmavngor*
'we uncovered the laplap[5] and we ate it <u>but</u> we couldn't sleep' (Leci, 60s)

It seemed to me, when evaluating the comments people made to me about borrowing in younger speakers' Nkep and my observations about borrowing when transcribing adults' narratives, that the main difference between the generations might be perceptual rather than material. Although sociolinguists shy away from proposing universals, I think it is fair to say that there is one sociolinguistic universal: older speakers always think language is going to the dogs – I have never heard any reports of a community where older speakers say that the way their children/grandchildren speak is admirable for its beauty and elegance. So it is entirely plausible that the 'crisis' of borrowings among younger speakers in Nkep is entirely a perceived crisis. This, too, is consistent with the 'crisis' discourses in Cameron's discussion of verbal hygiene.

Given that borrowing has been observed in recordings from speakers of various ages, this raises the possibility that we might be able to examine the local ideology that borrowings from Bislama are on the increase quantitatively. To look for evidence of generational change, I will use the sociolinguistic construct of apparent time. Sankoff (2006) explains the fundamentals of this in more detail, but the idea is essentially that because there are major constraints on how our language can change in adulthood, when we record speakers in their 40s (like John, above) we can 'hear' what the norms were for speakers growing up in Hog Harbour 30-35 years ago. Vocabulary, however, is one component of language that we know people can add to all their lives, and it is for this reason that Nagy (2011) suggests she found such mixed results in her study of lexical change.

3 Data and methods

The corpus is small compared to those exploited by speakers of well-described languages, but where we are building up a description of the language at the same time as a corpus, every hundred words is hard-won. Table 1 shows the number of words for the speakers in three age groups and in brackets the number of speakers represented in each group.

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[5] *Laplap* is the word used in Bislama and Vanuatu English to describe the food created by grating starchy vegetables into a puree, mixing this with coconut milk and baking in an earth oven.

	Older	Middle	Younger	Total
Female	1397 (4)	981 (2)	749 (3)	3127 (9)
Male	2354 (5)	1446 (2)	—	3800 (7)
Total	*3751 (9)*	*2427 (4)*	*749 (3)*	**6927 (16)**

Table 1: Corpus of Nkep narratives. Total number of words (number of speakers).

I considered differences in the rate of borrowing by looking at two things. First, I consider the frequency of borrowings by word class. As well as providing a raw count of borrowings, I also consider how often they are nativised, that is, how often they are assimilated in any way to Nkep phonotactic norms or are given Nkep inflectional morphology (this applies only to nouns and verbs). For example, both phonological and morphological assimilation can be seen when the realisation of the Bislama word *brata* 'brother' is *nprat* – the devoicing of the initial stop draws it into line with Nkep (which has /p/ but no /b/) and the prefix /n-/ occurs with most nouns in isolation in Nkep. The two phenomena may happen independently, so in (6) we see examples of morphological nativisation with no evidence of phonological nativisation. In (6a), the Nkep locative prefix /l-/ occurs with the borrowed noun *skul* but the stem consists only of phonemes also found in Nkep so it may or may not be phonologically nativised. In (6b), a similar situation holds: the Bislama verb *stat* 'start' conforms to Nkep phonology and phonotactics. The nativisation occurs through the use of the third singular realis subject prefix /m-/. However, in (7a) the Bislama verb *disobe* 'disobey' occurs with the first singular subject prefix /nam-/ but neither of the voiced stops (absent in Nkep) have been changed in any way and in (7b) the Bislama stem *buluk* 'bullock' occurs with the Nkep nominal prefix /n-/ but the voiced [b] has not been rendered with a [p] or [β] (both plausible Nkep substitutes).

(6) a. *...camru tian l<u>skul</u> vriv*
         'they (dual) went to the church' (Janet, 10 years)
     b. *nrur m<u>stat</u> hö*
         'the island started to run away' (George, 68 years)
(7) a. *nam<u>disobe</u>*
         'I (will) disobey (them)' (Shirleyana, 7 years)
     b. *npës mcën n<u>buluk</u>*
         'the dog ate the bullock' (Maeka, 65 years)

There are no clear cut examples of phonological nativisation only in my corpus. There is some phonological adjustment of the pragmatic particle *ciriap/miriap* 'so/and then' which occurs three times as *verap* or *veriap* in the corpus. These tokens are problematic and resist simplistic analysis. It is hard to see what prompts the phonological change from [ɣ] or [m] to [v], but it is notable that in all three cases, the particle co-occurs with Bislama *nao*. The Nkep form may occur simply as *ciriap/miriap* though it can also pair with an Nkep discourse deictic, *na(r)*. It is possible that these three tokens indicate full structural convergence with the Bislama discourse particle *girap nao* 'and so then' and that

this in turn has influenced the realisation of the initial consonant. However, I consider these tokens to be poor evidence for phonological nativisation alone.

To sum up: as (1a) and (6a) show, if a word already conforms to Nkep phonotactics it may be impossible to know whether the speaker considers it to be assimilated into their Nkep or a Bislama loan. This has significant implications for analysing the distribution of nativised forms by word class (discussed in the next section), as some very frequent conjunctions such as *ale* 'well, so' are already compatible with Nkep phonology, so they are opaque to any nativisation. On the other hand, *be* 'but' could in principle be rendered as [pe] since Nkep does not have a /b/ phoneme.

The problem of opaque nativisation also arises with respect to morphology. When Christina (8 years) used the Bislama verb *pasem* 'pass, thread (a rope)' with a third person singular realis subject, it is impossible to tell whether she has absorbed it into the Nkep morphological system because in Nkep, the third singular realis prefix /m-/ is rendered as zero when the verb is /p/-initial. Hence, *pasem* could represent a non-nativised borrowing or a nativised one, but the facts are impossible to untangle on the basis of the word alone.

These measures allow us to establish a rough baseline of what the norms for borrowing are within the community and in §3.1-3.2 we consider borrowings and nativisation as linguistic facts. In §3.3, I look at the frequency of tokens and types by generation, since this allows us to determine whether there has indeed been any change in the extent of borrowing over apparent time.

3.1 Frequency by word class

Word class	N tokens	Word class	N tokens
Noun	106	Preposition phrase	7
Proper Noun	24	Focus particle	5
Address/respect term	52	Conjunction	101
Verb	28	Adverbial phrase	6
Pragmatic/discourse particle	25	Ordinal number	3
		Date	1

Table 2: Frequency of Bislama borrowings in all Nkep narratives by word class.

Borrowing of proper nouns is not terribly remarkable; social and cultural change facilitate the shift to new names even if there was previously a traditional name for a place or region in the local language (as footnote 2 already indicated, it is not so clear to me as an outsider in what sense proper nouns are 'proper' in Vanuatu). I henceforth ignore them. I also exclude address and respect terms such as *Dikon* 'Deacon', *mama* 'mother' for similar reasons. Setting these forms aside, we can see that nouns and verbs are very frequently borrowed. This is unsurprising since they are the most frequent parts of speech overall. The high frequency of borrowed conjunctions/sentential connectors is a little more notable. These are not required constituents in the clause and because of this, they perhaps are better indexes of contact-induced change.

There were no clear patterns for nativisation of borrowings by word class, partly because in many cases the number of tokens is so small.

Word class	Nativised tokens (and % total)	Word class	Nativised tokens
Noun	51 (48%)	Conjunction	0
Verb	14 (50%)	Adverbial phrase	0
Pragmatic/discourse particle	3 (12%)	Ordinal number	0
Preposition phrase	6 (86%)	Date	0
Focus particle	1 (20%)		

Table 3: Number of Bislama borrowings into Nkep nativised in any way (number of tokens and percent of all tokens for each word class).

As mentioned, in principle, any word can be nativised, given that the definition encompassed both pronunciation and morphological criteria. However, this is not what we find. What we see is a much stronger tendency for nativisation of some word classes than others. Specifically, borrowed nouns, verbs, and preposition phrases (notwithstanding the very small numbers involved here) are more likely to be nativised in some manner by the speaker than borrowings from the other word classes.

Conjunctions certainly could be nativised according to this definition, e.g. Bislama *be* (N=66) could be realized as [pe] or [βe], but as we can see, they never are. Part of the reason for this may be that they are generally very short (so there simply is less material to work with if you want to nativise), but I think that this cannot be all of the story, and I will return to another possible account after reviewing the data on token/type frequency.

3.2 Token and type frequency

Table 4 shows how often borrowings occur in the three age groups by token and type frequency. Type frequency controls for repetitions of the same lexeme, that is, there may be several tokens of one word type (lexeme) borrowed.

	Older men	Older women	Middle men	Middle women	Girls
tokens/total words	0.03	0.04	0.06	0.07	0.12
types/total words	0.02	0.02	0.02	0.03	0.05

Table 4: Token and type frequency of Bislama borrowings in Nkep across three generations.

The rates of borrowing look very similar across the groups especially when we consider types rather than tokens (the two measures are not significantly different,

a t-test returns a value of p=0.064). There is a slight increase in both tokens and types among the youngest girls, but there is certainly no clear, monotonic pattern of generational change. Crowley (2004) likewise found no strong quantitative evidence for borrowings being more common in younger speakers' Sye (though his data does not differentiate between types and tokens). If we consider the frequency of types/total words, there is a significant increase in borrowings between the middle aged women and the girls (chi-squared = 6.28, df=1, p=0.01) but the differences between older and middle aged speakers is much less clear. Since we are looking at lexical development and it is clear that people can and do add new vocabulary to their repertoire through their lives, our results may reflect developmental changes rather than change in progress (this reminds us of Nagy's 2011 conclusion that for this reason lexical borrowing may not be well-suited to the methods of variationist analysis).

Before we dispense with the possibility of generational change entirely, I will consider what speakers in the different generations are doing in a little more depth.

3.3 Generational change

As noted earlier, people from Hog Harbour of many ages have portrayed a picture of language shift to me in which Bislama is much more frequent in younger speakers' Nkep than in traditional and older speakers' speech. What kinds of situations might underlie this claim when people in Hog Harbour tell me–and each other–this?

Table 5 schematises the possibilities, assuming the local perceptions are correct and younger speakers borrow more than older speakers do:

	Frequency of Bislama borrowings across generations	
Nativisation of borrowings in older speakers...	+ difference	- difference
... but not in younger speakers	A	C
... and also in younger speakers	B	D

Table 5: Possible patterns that might be observed with respect to frequency of borrowing from Bislama and tendency to nativise borrowings from Bislama across generations in Hog Harbour.

1. In Pattern A, there *are differences* in the frequency of Bislama borrowings across the generations. Children are using more Bislama loans but these are unintegrated switches that indicate reduced productivity of Nkep morphology and syntax in the younger speakers, and less rich Nkep vocabulary than the older speakers.
2. In Pattern B, there *are differences* in the frequency of borrowing across the generations, but there is no difference in how borrowings are handled by the generations. The greater use of Bislama borrowings by younger speakers is

not accompanied by evidence of reduced morphological and syntactic productivity in Nkep.

3. In Pattern C, there is ***no difference*** in the frequency of Bislama borrowings across the generations, but children nativise forms less often than older speakers do. This would indicate ***reduced productivity of Nkep morphology and syntax*** in the younger speakers, but no less rich Nkep vocabulary than the older speakers.

4. In Pattern D, there is ***no difference*** in the frequency of borrowings across the generations and there is ***no evidence of reduced morphological or syntactic productivity*** among the younger speakers, and no less rich Nkep vocabulary than the older speakers (in short, the community perceptions are wrong).

Table 5 has several assumptions built into it. First, it assumes that if there is a difference in frequency of borrowing across the generations, younger speakers will do it more (and not older speakers). This is the hypothesis provided for us by the community and that we are testing the validity of.

The second assumption is that older speakers will always nativise borrowings and the variability will lie in whether the younger speakers do or not. It is less obvious why we should assume this. In theory, it would be possible to imagine that younger speakers might nativise borrowings more often than older speakers do. This might be because language attrition has eroded the children's vocabulary very quickly, and this lexical erosion has taken place faster than any attrition of morphosyntax. However, I do not consider this a likely possibility worth testing. Other work on morphologically complex languages (Dorian's 1978 work on language attrition in Sunderland Gaelic and Schmidt's 1985 work on Dyirbal) suggests that this is unlikely because language shift and individual language attrition seem to have an impact on speakers' productive use of full morphological paradigms very early.

As we saw in Section 3.2, there is no significant difference in the rates with which the different generations borrow lexical types across all three age groups, only between the girls and the older and middle women. However, as we noted the pattern observed might be attributable to developmental considerations rather than to change in progress. It therefore seems we can rule out of consideration both Patterns A and B. We can focus then on whether there is evidence supporting Pattern C or D. The crucial difference between them lies in whether there is evidence to suggest the girls' morphology and syntax in Nkep is less productive than it is for older speakers.

Table 6 shows the frequency with which borrowings in the three main word classes were subject to any nativisation among speakers in the three age groups under consideration.

	Nouns	Verbs	Prep phrase
Girls	3/22	3/15	2/2
Middle women	13/17	1/1	NA
Older women	5/14	5/6	1/1
Middle men	23/26	3/4	2/2
Older men	7/27	2/2	1/1

Table 6: Frequency Nkep speakers nativise Bislama borrowings in the three most common word classes and across three age groups.[6]

In this table, we see that there is a decrease in the frequency with which the girls nativise the borrowed nouns in their Nkep, however this difference is not significant (the difference in how likely the girls are to nativise their borrowings is not significantly different from the women in the middle and older generations, chi-squared with Yates correction, p=0.17). This is because the nativisation of borrowed words among the older women is also very low. We do notice an increase in the amount of nativisation among the middle aged women (and apparently also among the middle aged men, though without any data from boys at this stage it is not clear whether this is a trend or an unexpected peak among this age group. Why we see this increase among the middle aged speakers is unclear. In sociolinguistic studies of variation in urban speech communities, researchers have noted a pattern of age grading in which middle aged speakers use more standard variants than younger and older speakers do (e.g. Sankoff and Blondeau 2007). The explanation for this in urban speech communities is that middle aged speakers who are engaged in the workforce are responding to the normative pressures to use standard language At any rate, it does not suggest a gradual change taking place across the generations with respect to how speakers handle borrowings from Bislama. The data for nouns is not consistent with Pattern C.

When we look at the data for borrowed verbs, there appears to be a tendency for the girls to nativise borrowed verbs less than the other groups of speakers but a chi-squared test contrasting girls and the older speakers found this difference is still below the level of statistical significance (girls vs older women, chi-squared with Yates correction = 2.318, p=0.3; aggregating all older speakers versus the girls, chi-squared with Yates correction = 2.734, p=0.098). Again, this data is not consistent with Pattern C.

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[6] The numbers of tokens are too small to do tests on, but for the record: girls also nativise 3/12 pragmatic particles; older women nativise 2/21 address/respect terms; middle men nativise 3/12 Proper Ns; older men nativise 1/10 Proper Ns, and 1/2 focus particles.

This means that we must conclude that the community perceptions about borrowings from Bislama are skewed or at least that they are not accurately reflected in the performance of this small sample of speakers. Pattern D is the one that has the most quantitative/statistical support.

4 Looking to the narratives for triggers of borrowing

This leaves us with the interesting question of what the borrowings tell us and why are people so sensitive to them. In order to explore this, I turn to Matras (2012) who provides an interactional and psychological analysis of code-switching in the speech of relatively balanced bilinguals. Matras' work is helpful for the Nkep data because so many of the speakers in Hog Harbour are pretty balanced bilinguals in Nkep and Bislama. (I only encountered a few small children who struggled with Bislama, usually once children start kinder at about age 3, they start to pick up Bislama, if a family is very cash poor and can't afford kindergarten fees early, this may be delayed for the child until they are 4 or 5.)

Matras notes that many analyses of borrowing suggest that it is triggered by speakers having a lexical gap in one language which they seek to fill from the other language. But this does not seem to be a plausible account for many of the forms we see being borrowed in the Nkep data. As Table 2 showed, the most common Bislama forms borrowed in the Nkep narratives are conjunctions or sentential co-ordinators like *be* 'but' and *ale* 'so, then, well'. The speakers certainly know the Nkep equivalents of these forms and do use them in other contexts. While Clark (2004) and Crowley (2004) do not provide quantitative evidence about the borrowing of discourse markers like these, they both concur that they are very common in both Mele and Sye speech, even among older and quite fluent vernacular language speakers. Sankoff (1972) also notes the frequent use of Tok Pisin *orait* in a Buang speech she recorded. She notes that in her data, use of *orait* instead of Buang *olo ba/olo ga* seems to carry social significance, marking emphatic points in the speech, yet "for many other segments, there appears to be no very satisfying explanation" and "that what carries weight ... is best analysed as a matter of degree" (1972: 48).

Matras (2012) also considers accounts of borrowing that make reference to the greater 'prestige' of forms in the donor language over forms in the base language of the utterance. Like Clark (2004), he argues that an analysis based on relative prestige is also difficult to motivate empirically for many bilingual speakers (that is, prestige analyses are almost always imposed by the analyst without direct evidence from the speakers themselves). This is a useful observation for the Hog Harbour data. It is not at all clear that use of *be* or *nacpentem* sounds 'better' or more prestigious in Nkep than the use of *nara* and *nacklep* do.

Moreover, and crucially, in Matras' opinion, prestige provides a poor account for the hierarchies of borrowing that he has found in his extensive and decades-long research on language contact. His work focuses especially on contact between Romany and different Indo-European languages and therefore constitutes a particularly powerful database, since it holds Romany constant and can observe

what happens when speakers of Romany are in contact with typologically very different languages (some Romance, some Germanic, some Slavic, etc.). Matras has noted recurring hierarchies of borrowings across word classes, such that connectors are more likely to be borrowed than pronouns. He also observes recurring hierarchies within word classes: so, for instance, in the class of connectors 'but' is more likely to be borrowed than 'or' which is more likely to be borrowed than 'and'. Other hierarchies are lexico-semantic: markers of obligation are more often borrowed than markers of possibility, possibility more than markers of desire, etc.

Finally, he notes that borrowing seems to occur regardless of whether the addressee will understand,[7] and to Matras this suggests that borrowing is not fundamentally a sociolinguistic phenomenon, but rather a fundamentally cognitive process. In this respect, his analysis is deeply sympathetic to Sankoff's (1972) earlier position where she articulates a need for an interpretive approach to analysing alternations between languages. However, Matras' proposal bridges the possibility of interpretive and predictive accounts for borrowings and inter-language switches, arguing that it is possible to generalise over individual cases of switching and state some general principles.

Matras' account of borrowings or insertions from one language into another takes the mental or cognitive repertoire of the speaker as its starting point. When a bi-/multi-lingual speaker chooses to speak in one language, this doesn't mean that the system(s) of all the other languages they speak are unavailable. Speakers monitor their production of lexemes and constructions to make them context-appropriate, but this monitoring can be disrupted by interactional or other cognitive processes. Matras suggests that this is the reason why conjunctions (especially 'but'-type conjunctions) are so frequently the trigger points for slippage between different linguistic systems. "The function of the contrastive conjunction is to signal a break in the expected propositional causal chain" (Matras 2012:34), that is, a contrastive conjunction ('but') is inserted where the speaker anticipates some mismatch between the hearer's expectations and the speaker's intentions. 'But', Matras argues, signals that interactional work is being done to redirect the hearer's processing.

This contrast between expectations and intentions creates a degree of tension in the speaker's mental processing and the interactional and cognitive work inherent in bridging the gap is sufficient, Matras argues, to interfere with the monitoring that multilingual speakers are usually engaged in. In this way, Matras reframes lexical borrowings, especially of such high frequency items as conjunctions, not as bridges of some kind of *lexical* gap but instead as markers

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[7]Many people find this resonates with their own experience. I recently realized the Bislama word for 'because' had slipped seamlessly into a German sentence. Why some people's "go-to" language for these switches is *another* non-native one rather than their native language is not something I am aware of there being any literature on at all; all Matras' examples seem to involve the insertion of lexemes from the speaker's (other) dominant language. My personal hunch is that because of their personal and linguistic histories, some people may police the boundaries between some languages more strictly than between others. For instance, in my example, the lexical boundary between English and Bislama (because it is an English-based creole) is one that I am very aware of. If I am struggling with my rusty German, I am unlikely to be monitoring the boundary between German and Bislama. This is all incredibly speculative though and I look forward to seeing psycholinguists take on some of this conjecture more systematically.

that the speaker is concentrating on bridging a *cognitive* gap between the interactants. In turn, and through repetition, these forms can become the bridge for other borrowings or incursions.

In the narratives I have recorded, there seems to be some support for Matras' conjecture that a switch between languages may occur when the monitoring of language boundaries breaks down because the speaker is concentrating on interpersonal factors or is highly emotional. The following example is taken from an interview I did with Leci Warsal, who recounted what happened to her the day there was a machine gun attack on the village in 1980. We can see rapid switches into Bislama (shown with CAPITALS) at a point in the narrative where the dramatic tension is particularly high:

(6) **Extract from Leci Warsal's story about the Santo Rebellion.**
wei temhö yan thaan pel ton, mheth avei tmneth
if we'd run somewhere else, probably we'd be dead
BE *temhö yanp lthe*
BUT we ran and went into the ocean
cam cavorce wesi camhö yan lthe
there were lots of us, we ran away into the ocean
YANGFALA *camhö camian*
and THE YOUNG MEN ran away
camcer hov liviect the
they swam out to sea
BE *cam nmama ce nwalthac kikri camlro latieth*
BUT us, the mothers and the little children, we hid in the holes in the rock
caml- camlroke, camroke ün caple
we were- we were listening, we heard the guns
(NK-20130419-Leci-rebellion1.eaf, 03:25.583-03:40.940)

In the video recording the tension is very clear. Leci begins to speak rapidly with shallow breaths. The event still has the capacity to arouse strong feelings and heightened emotion and we see that the retelling of it is accompanied by a series of borrowed Bislama words at the start of a new finite clause. Two of these are instances of 'but', where Leci presents information that takes the listener in a new direction, perhaps not the one that the listener was expecting (instead of hiding in the bush, they ran to the sea; instead of swimming out to sea, they hid in the sharp rocks by the water). Her use of Bislama *be* is consistent with Matras' thesis that switching for balanced bilinguals is highly likely to occur where the speaker is juggling not only the planning needs of the narrative, but also the planning and management of alignment between the speaker and hearer.

Similar examples of switching to Bislama at moments of heightened attention to interpersonal alignment can be found in the public speeches made by some of the older men in the *nakamal* (village meeting space) and I turn next to some examples from that recording. The context for the meeting was that some years before the village had erected the frame posts for a large communal kitchen that could be used when there were large gatherings at the main *nakamal*. Progress

had stalled and the cement posts stood among high weeds near the entrance to the village. One of the men in the community had had a dream in which an ancestor had said the kitchen must be finished. A village meeting was called on Sunday after church for the dream to be discussed and action to be debated. The whole matter was somewhat face-threatening since the community as a whole had been ignoring this problem and not taking responsibility or action. It was a little more tense, perhaps, because the man who had the dream maintained a house in the village but mainly lived in Santo, where he is a successful (and very wealthy) businessman. He did not offer to pay for materials to complete the kitchen, so if his dream was to be acted upon, it required the community to fund and provide the labour for it.

In the first extract, we hear from the businessman himself, urging the rest of the community to get behind his dream of finishing the *nakamal* kitchen. He does so by setting up an implied challenge for the community, contrasting the way people in the village (supposedly) pulled together in times of old, with their reluctance to do so today.

(7) **Extract from community meeting on the nakamal kitchen: the challenge.**
mantlöng reki vatwari
in the old days our elders
vei cwaar nteiaat
when they said [they were going to do] something
camrës mset
they did it, they got on with it
[...]
SO yön namker aal nesaru
SO I am just putting forward this talk
mtham vei maröng yërthël tremp revül hüiar non remrem
like in the old days we [should] think again [about] why [the] idea
mrer yërthël tmavrës re nteiaat
has failed [and] we don't finish things
ESPESILI lom kö viël
especially the nakamal kitchen

In both the switch points, the speaker changes the tenor of what he is saying. Instead of reflecting on the past, and inviting his listeners to imagine things as they were, he pulls the discussion into the present (where he is putting forward his thoughts and where he wants them to focus especially on the *nakamal* kitchen).

Later in the meeting an older man, well-respected in the community and the church, stands up to speak and also urge action. The extract in (8) is from the second time he rises to speak. The switches in this extract are not restricted to the kinds of discourse and cohesion markers that we have seen in (6) and (7). The first switch is after an Nkep discourse marker *nara* and is a lexical stem from Bislama. The second switch (some minutes later) involves a switch to an English phrase *nothing is impossible* and the repetition of the stem *impossible/imposibol* (now ambiguous between English and Bislama).

(8) **Extract from community meeting on the nakamal kitchen: the response.**
tavei nacwaar nacwei nacwaar nace-
I think I will say when I say I'll-
nara nacENKARAJEM yërthël nëth
well I ENCOURAGE us
melro lohe ni
[those] staying at home in the village
[...]
nar yërthël temrësp wo vatei hie tei
now we built this one here [in] nearly a year
temrës wo na thi lön ra
we've built this one there [for] six months [and it is still just a shell]
navei twelpr rlam cavorce cthmam non vei yërthël yërthël temnon theip non
when [people] call out like that we- we are as plentiful as sand on the beach
NOTHING IS IMPOSSIBLE
NOTHING IS IMPOSSIBLE
navaar navei titei mavIMPOSIBOL herthël
I am telling you that nothing is IMPOSSIBLE to us

The speaker could have used an Nkep phrase for 'I encourage us' (*nacwaar thhi yërthël*) but I think this switch is also consistent with Matras' proposal that switches often 'signal a break in the expected propositional chain'. In (8), we see several other cues that the utterance is problematic in some way for the speaker – there are several false starts in the preceding utterance, reformulations and a hedge (*tavei* 'I think).

The second switch is perhaps more interesting. After contrasting the construction of the *nakamal* itself (a job that took a year) with the *nakamal* kitchen (still just a few concrete framing posts after six months of work), the elder tries a different form of direct encouragement. When people are needed, he says, the village can respond in such numbers that the labourers are as plentiful as all the 'sand on the beach' (*temnon theip non*). He switches into English to provide the key aphorism: *nothing is impossible [for us]*, perhaps in the spirit of the borrowings Sankoff (1972) analysed in Buang where the use of Tok Pisin, she argues, is unmarked for anyone claiming the role of a community leader, reinforcing the speaker's semantic claims to authority here through the use of a language of action. He immediately restates this in Nkep, but still with the borrowed stem *impossible/imposibol* (at this stage it is unclear whether it should be treated as an English or Bislama borrowing, the final vowel is full unlike standard English but a full vowel can also be heard in educated speakers of Melanesian English). This borrowing is deeply incorporated into the syntax of the sentence, being inflected as a negative predicate (literally, *titei mavimposibol herthël* 'something [of] ours is not impossible'). In this instance, the switch fits less snugly with the propositional analysis Matras puts forward for conjunctions and which I have suggested can be usefully extended to some lexical switches such as *enkarajem* 'encourage'. There is no propositional switch here, in fact the

aphorism sums up and paraphrases the sentiments already developed in the speech. Matras is not arguing that all switches are motivated by a misalignment of the speaker's and the hearer's expectations. That is, for some, a more sociological interpretive perspective is required (Sankoff 1972).

What I like about his analysis, though, is that it offers a more coherent way of linking the kind of emotive, attention-grabbing switches that occur with longer segments like *nothing is impossible* to the otherwise problematic ones such as *but* and *so*. If we accept Matras' analysis of the conjunctions, then in all cases we have switching when the speaker is juggling additional interpersonal considerations (of alignment, suasion, expectation) with propositional content. The more planned and rhetorically accomplished switches like *nothing is impossible* and the reflexive or sub-conscious switches like *be* and *so* can be seen as different instantiations of the same underlying phenomenon. The speaker's conscious control over the switch therefore becomes the principal and most salient difference between them.

5 Conclusion

I have shown that speakers of Nkep of all ages make ready use of Bislama lexical borrowings, that is, there is no apparent time evidence that there is an increasing amount of Bislama in younger speakers' Nkep, despite perceptions to the contrary in the community. In particular, Nkep speakers are prone to insert Bislama conjunctions in fluent Nkep. Virtually all the items have an Nkep equivalent so it is implausible to argue that borrowing indicates lexical gaps in the speaker's Nkep system. Instead, the data are in line with Matras' conclusions based on his cross-linguistic study of borrowings in contact languages and in the speech of bilinguals. Following Matras, I have argued for the importance of interactional considerations when analyzing borrowings. Under this view, instead of indicating the lack of control of the boundary between two or more languages, a borrowing reflects pressure on the speaker when they are trying to control not only the languages that they know, but also their assessment of the needs and attentional states of the participants in the here-and-now.

Is there a larger significance to this conclusion? I would hope so, both for the community of linguists and the community of Hog Harbour. From the perspective of a sociolinguist, I'd like in the future to consider this data alongside data on other variables. We seldom engage in triangulation of data from different sources that was foundational in the field (cf. Labov's 1972 use of the department store data to complement his data from conversational interviews), but if Matras is on the right track with the cognitive basis for the kind of variation I have found in this dataset (and I believe he is), then it should be possible to complement this with data from structural variables. There would be two purposes to this. One would be to consider whether variation in lexical borrowing serves as a bridge not to other borrowing as Matras suggests, but to other variables. Can we find any evidence other variation is facilitated in these conditions as well, and if so do the lexical borrowings preferentially serve as the bridge for certain other kinds of variables?

Second, although this study is based on a relatively small dataset, and the languages concerned are not well-known, and the findings support existing work rather than propose any radical need to rethink what we are doing, there is a larger sense in which the results matter. As I noted, the reason I have been working in Hog Harbour is because the community is concerned about the long-term vitality of their language, and anyone I have talked to there about this variation is fascinated and finds it very thought-provoking. My sense is that Hog Harbour's current demographics and the number of younger speakers one can find there mean that the language itself is by no means doomed. But what will make a difference to the long-term vitality of Nkep is whether speakers in Hog Harbour *believe* it has a future. Grenoble (2010) has observed that there are important applied reasons studying variation and change in endangered languages–if we normalize change for the communities concerned, and can either show them that their perceptions are out of line with the facts, or show them that the change they have noticed is materially no different from the change that takes place in more vital languages, then our linguistic research can contribute positively to the long-term future of these languages.

My data suggests that people in Hog Harbour are more aware of Bislama borrowings in younger speakers' Nkep than they are in older speakers'. And, as in communities everywhere, people latch onto these differences and attribute them to the degradation and decline of the language. These ideologies equate linguistic stability with purity and purity with vitality. By the internal logic of this system, therefore, the instability of change entails degradation and degradation entails weakness. Although these ideologies are strong and almost universal, they are not immune to change. This raises the possibility that variationist sociolinguistics may have practical and constructive insights on precisely the kinds of variability that speakers in minority and endangered language communities may be most concerned about.

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