Olfactory words in northern Vanuatu

Langue vs. parole

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This corpus-based study examines the lexical domain of olfaction in the Oceanic languages of northern Vanuatu. While a tropical ecology is sometimes believed to favor elaborate encoding patterns for smells, this does not appear to be the case in Vanuatu. Most languages there show a rather limited array of lexemes, whether to refer to smelling events (active, passive, experiencer-based) or to the odors themselves. That said, sources based on speakers' competence (*langue*) rather than performance (*parole*) suggest that languages may in fact possess a latent elaborate olfactory lexicon, even if it surfaces rarely in ordinary speech. The low discourse frequency of specific terms may be explained by cultural factors, as smells appear to play a reduced functional role in traditional social practices of Vanuatu. Finally, my corpus of conversation and oral literature shows that when olfaction is mentioned, it is mostly associated, first, with the islands' natural environment; and second, with the existential contrast between death and life.

Keywords: lexical semantics, langue vs. parole, corpus study, poetry, Oceanic languages

Olfaction in northern Vanuatu

1.1 The problem

Compared to other sensory modes, the domain of olfaction often appears to involve a less elaborate vocabulary, with fewer semantic distinctions. At least, this seems to be the case of the major European languages: While they have many terms for colors or sounds, they lack an equally sophisticated lexicon to describe smells (Lawless & Engen 1977; Wilson & Stevenson 2006).

Recent research has, however, brought to light several languages in the world where the olfactory domain is in fact lexically rich, involving fine-grained distinctions and a semantic system that appears to be at least as elaborate as for other senses. One such language is Jahai, an Austroasiatic language of Malaysia described by Majid & Burenhult (2014). Another case in point is Cha'palaa, a language of Ecuador which even shows the rare feature of grammatical devices involving smell (Floyd, San Roque & Majid 2018).

One commonality between the latter two cases is the natural environment: The Jahai of Malaysia and the Cha'palaa of Ecuador are societies of the tropical rainforest. Could this ecological factor explain why smells are culturally and linguistically prominent for human societies living there? One could perhaps hypothesize some sort of evolutionary correlation between a biodiverse environment on the one hand, and the linguistic elaboration of olfactory semantics. Also, due to their density, tropical forests tend to disfavor visual cues, and increase the importance of smells (cf. Floyd et al. 2018: 177). One way to test that hypothesis would be to examine other languages spoken in a similar ecological context, and see if they confirm or contradict this proposal. One such tropical area is the archipelago of Vanuatu, in the South Pacific.

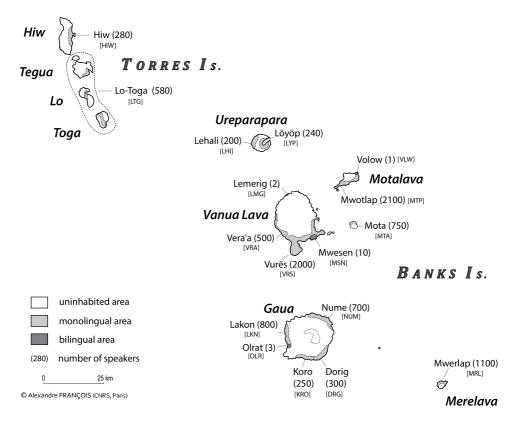
The languages of northern Vanuatu

Vanuatu – known as the New Hebrides until its independence in 1980 – is home to 138 indigenous languages, which makes it the country with the highest linguistic density in the world (François et al. 2015). Together with about 400 other languages of the Pacific, all the languages of Vanuatu are Oceanic - a branch of the Austronesian family. The name of their common ancestor is Proto Oceanic (POc), a reconstructed protolanguage spoken about 3,200 years BP1 (Pawley & Ross 1995).

I have mostly collected primary data on 17 languages of northern Vanuatu, in the island groups known as the Torres Islands and the Banks Islands (see Map 1), the focus of the present study.

With 17 languages for 9,300 inhabitants, the Torres-Banks area shows impressive linguistic diversification (François 2011). They do share some innovations together, which can be attributed to a local common ancestor, Proto Torres-Banks or PTB (François 2005, 2013, 2016). Several linguists have worked on the

^{1.} BP: "before present" – a convention used by archaeologists for non-Western civilizations. By convention, the reference date is 1950: hence 3,200 BP = 1,250 BC.



Map 1. The 17 languages of northern Vanuatu (Torres and Banks Islands)

area, and written reference grammars - see François (2001) for Mwotlap, Schnell (2011) for Vera'a, Malau (2016) for Vurës - and dictionaries - Codrington & Palmer (1896) for Mota; François (2020) for Mwotlap; Malau (forthcoming) for Vurës.

Data sources for the present study

My total corpus consists of 4156 pages of handwritten notes, featuring 22 different languages. These field notes include: data elicited using a homemade conversational questionnaire (François 2019); snippets of daily conversation heard during participant-observer immersion in each community; and finally, a corpus of texts (mostly narratives and sung poems) taken from my 962 audio recordings, transcribed and annotated in the presence of native speakers. Among these, 168 narratives were later typed, resulting in an electronic text corpus of 250,000 words, with the largest corpora being in Mwotlap, Lo-Toga, Hiw and Dorig.

Throughout this study, I will indicate the source of my examples using simple conventions.² Each language is represented by a three-letter abbreviation, shown in Map 1. Sentences obtained through elicitation refer to my field questionnaires – e.g. [LHI.d12:12]. Spontaneous speech heard during language immersion has a reference to my notebooks – e.g. [FP3-28b]. Sentences taken from my recorded texts will note the language, the story and the sentence number – e.g. [HIW.Meravtit.051].

Those stories that can be heard online also indicate a DOI identifier, pointing to the target sentence on the open-access Pangloss archive (François 2018).³

The environment in Vanuatu

Vanuatu's human habitat takes the form sometimes of villages on the coast, and sometimes of smaller hamlets in mountainous areas. Houses in northern Vanuatu are generally made of plant material – wooden timber, bamboo walls and sago leaves for the roof – and villages are surrounded with a vegetal landscape, whether crop gardens, secondary forests or primary rainforest. The traditional economy combines the exploitation of land resources with practices of fishing and gathering in coastal areas.

Vanuatu people are exposed to a variety of smells in their natural environment - with a more prominent presence of scents from the forest (coconuts, rotting wood, some particular flowers ...) on the one hand, and smells from the sea (fish, seashells, surf ...) on the other.

Farming areas are home to pigs and poultry – and more recently, cattle. The wild fauna mainly consists of fish or other sea creatures, and birds. The flora is richer, with vines, palm trees and coconut trees, trees with flowers and fruit. Cultivated crops consist mainly of tubers and roots of various sorts – including yam, wild yam, cassava, taro. These crops are sometimes grilled on the fire, but most often they are steamed in the traditional ground oven, or boiled. These vegetables are then served with grilled or cooked meat, which can be fish, octopus, turtle, crab, poultry, pork, more rarely beef. Cooking is often done using salt water from the lagoon, but involves neither grease or oil, nor spices in any form. Culinary practices seldom entail the mention of specific scents, other than simple phrases like 'good smell' or 'bad smell'.

Body hygiene is emphasized upon, and people bathe or wash in fresh water once or twice per day, resulting in a clean, odorless skin. Long hair is sometimes anointed with coconut oil; although this is scented, the primary function of that

^{2.} My audio recordings are freely accessible at http://tiny.cc/Francois-archives. My field notes are also archived online at http://www.odsas.net>.

For example, the DOI number 10.24397/pangloss-0002302 becomes a link simply by adding the prefix https://doi.org/10.24397/pangloss-0002302>.">https://doi.org/, yielding https://doi.org/10.24397/pangloss-0002302>.">https://doi.org/, yielding https://doi.org/10.24397/pangloss-0002302>.">https://doi.org/10.24397/pangloss-0002302>.">https://doi.org/10.24397/pangloss-0002302>.">https://doi.org/10.24397/pangloss-0002302>.">https://doi.org/10.24397/pangloss-0002302>.">https://doi.org/10.24397/pangloss-0002302>.">https://doi.org/10.24397/pangloss-0002302>.">https://doi.org/10.24397/pangloss-0002302>.">https://doi.org/10.24397/pangloss-0002302>.">https://doi.org/10.24397/pangloss-0002302>.">https://doi.org/10.24397/pangloss-0002302>.">https://doi.org/10.24397/pangloss-0002302>.">https://doi.org/10.24397/pangloss-0002302>.">https://doi.org/10.24397/pangloss-0002302>.">https://doi.org/10.24397/pangloss-0002302>.">https://doi.org/10.24397/pangloss-0002302>.">https://doi.org/10.24397/pangloss-0002302>.">https://doi.org/10.24397/pangloss-0002302>.">https://doi.org/10.24397/pangloss-0002302>.">https://doi.org/10.24397/pangloss-0002302>.">https://doi.org/10.24397/pangloss-0002302>.">https://doi.org/10.24397/pangloss-0002302>.">https://doi.org/10.24397/pangloss-0002302>.">https://doi.org/10.24397/pangloss-0002302>.">https://doi.org/10.24397/pangloss-0002302>.">https://doi.org/10.24397/pangloss-0002302>.">https://doi.org/10.24397/pangloss-0002302>.">https://doi.org/10.24397/pangloss-0002302>.">https://doi.org/10.24397/pangloss-0002302>.">https://doi.org/10.24397/pangloss-0002302>.">https://doi.org/10.24397/pangloss-0002302>.">https://doi.org/10.24397/pangloss-0002302>.">https://doi.org/10.24397/pangloss-0002302>.">https://doi.org/10.24397/pangloss-0002302>.">https://doi.org/10.24397/pangloss-0002302>.">https://doi.org/10.24397/pangloss-0002302>.">https://doi.org/10.24397/pangloss-0002302

oil is not as a perfume, but as a hair conditioner. The only regular cultural occasion involving fragrance for its own sake, is arguably a modern habit: At the end of a celebratory day, typically a wedding, younger people dance energetically around the village area at the sound of "string band" feisty songs, while elderly villagers stand by and sprinkle perfumed talc powder over the dancers' hair, resulting in a white cloud of scents blending away with joyful voices. Other than this rare occasion, neither men nor women traditionally use perfume.

1.5 Two different approaches

All in all, daily life in Vanuatu brings forth few noteworthy odors or scents – at least, very few that are endowed with a prominent function in local cultures and discourse.⁴ This may explain why the olfactory domain – as we shall see – shows rather limited elaboration in the lexicon of Vanuatu languages.

One should note an important methodological difference, though, between the present study and the ones mentioned earlier. Majid & Burenhult (2014), for example, was a systematic investigation centred on olfaction: Using a kit of different substances and smells, they conducted specific sessions where they elicited lexical items describing particular smells - including terms that would show up rarely in discourse. The present chapter is not based on such an investigation, but rather on participant-observer immersion in speaker communities. Rather than focusing on a particular semantic field, I carried out generic documentation of a broad array of domains – from grammar to pragmatics, from kinship to seafaring technology, from botanics to poetry and music. My corpus (see Section 1.2) combined the recording of oral literature and narratives with random conversations in the village, documenting daily discourse.

Under these circumstances, it is only expected that highly specific vocabulary related to olfaction would slip under the observer's radar. Just like it would take a very large corpus of English for olfactory terms such as *acrid* or *floral* to show up, likewise, in order to identify specific smell-related lexemes in Vanuatu languages, it would be necessary either to collect many more texts, or to carry out systematic elicitation from this domain. This caveat should be borne in mind when comparing the present Vanuatu data with the Jahai of Malaysia, due to the difference in methodology and goal between the two approaches.

Rather than collecting as many lexemes as possible on smells, the point of the present study is thus to observe how much the olfactory domain is represented in daily speech and literary texts, compared with the lexical domains of other senses.

^{4.} This comes in contrast with Cha'palaa culture, in which smell plays a culturally significant role in a number of different contexts (Floyd et al. 2018).

Using this corpus-based approach, I will examine which semantic contrasts show up most frequently within the olfactory domain.

In sum, while specific studies centred on olfaction, such as Majid & Burenhult (2014), investigated the latent properties of a linguistic system – what Saussure (1916) called *la langue* – the present study will examine the manifestation of olfactory expressions in a corpus of spontaneous speech – i.e. la parole. As we shall see, the two approaches yield quite different results.

The present study

Section 2 will show that the number of roots relating to smell is limited in the northern Vanuatu area - or at least, those that show up in my corpus. A single etymon (a protoform *mbuna) takes the lion's share in the domain, whether for verbal or nominal uses (Section 2.1); it is completed by a handful of other lexemes, nouns or verbs, for basic meanings (Section 2.2).

Section 3 will discuss the apparent exception of Mota, as described in a detailed 1896 dictionary. The olfactory lexicon in that language seems much richer than in the rest of the area. I will propose that the contrast is not so much due to a contrast between languages, but rather to the difference between data collection approaches: Mota's dictionary focused on native speakers' competence, while my corpora reflect their performance in particular circumstances.

Section 4 will explore cultural connotations associated with the olfactory domain in my corpus. Smells are often mentioned in the contrast between life and death, between humans and evil spirits (Section 4.1). The action of smelling or sniffing is linked – if only etymologically – to the act of kissing (Section 4.2). Finally, we will see how oral poetry can celebrate the perfumes of Nature (Section 4.3).

A corpus-based observation of olfactory verbs

One central root 2.1

The domain of olfaction in northern Vanuatu languages revolves mostly around a single root, which can be reconstructed as *mbuna at the level of Proto Torres-Banks. This root reflects - with an irregular change of vowel - the etymon *mbona(s) 'to smell, stink' that is reconstructed for Proto Oceanic (Osmond & Pawley 2016: 505).

Following regular processes of sound change in the area (François 2005, 2011, 2013), the languages of north Vanuatu reflect that etymon in various ways. In (1) below, each language name is followed by the form taken, in the Torres-Banks languages, by the verb * mbu ina – first in the local orthography, then in phonetic transcription.

(1) *mbúna 'smell':

Hiw qune [kwunə]; Lo-Toga qune [kwunə]; Lehali qon [kwən]; Löyöp $q\bar{o}n$ [$\hat{k}p^w$ un]; Mwotlap $q\bar{o}n$ [$\hat{k}p^w$ un]; Lemerig $p\bar{o}n$ [pun]; Vera'a bunō [mbunu]; Vurës bōn [mbun]; Mwesen pōn [pun]; Mota puna [puna]; Nume bun [mbun]; Dorig bon [mbun]; Olrat pōn [pun]; Lakon pōn [pun].

In spite of their different phonetic realizations, most of the properties of these related forms are so similar from language to language, that they can be described here along the same lines – as the next sections will show.

2.1.1 Verbal uses

Throughout its different uses, the root *mbuna always refers to the domain of smell. The form is rarely used as a transitive verb, taking the experiencer as its subject:

mbúna [v.tr.] 'sniff, smell at (s.th.) actively'

I only have one example of such a transitive use for that root, in the language Mwotlap:⁵

(2) Mwotlap

Qōngōn egal tog: itōk? smell.at CONAT IMPER good 'Try to smell it: is it okay?'

[Mtp.Iqet.Qasvay-TL.103]

As we shall see in Section 2.2.1, languages in north Vanuatu use other verbs to refer to the action of actively smelling something.

The most frequent use of the verb *mbuna is intransitive and stative. It takes as its subject the stimulus, i.e. the referent emitting a smell. When used without reduplication, the verb's default meaning is pejorative 'to smell bad', 'to stink':

(ii) *mbúna [v.intr.]:

1. 'to stink', 'to emit bad smell'. 2. 'to rot'. 3. 'to be dead, espec. for a long time'.

These meanings can be illustrated with examples of Lo-Toga, Vurës or Vera'a:

(3) Lo-Toga

> hiñevë Niwë nōk, të "Mff! Ne 3sg:aor sniff like that QUOT INTI ART coconut this qune!" na STAT stink 'He sniffed at it like this, and said "Yuck! This coconut really stinks!"

[Ltg.Mrwh-canoe.045 = https://doi.org/10.24397/pangloss-0003289#S45]

^{5.} Example sentences are transcribed using each language's conventional orthography.

(4) Vurës

O $\bar{n}e$ ine $g\bar{o}=b\bar{o}n$, $g\bar{o}=b\bar{o}n$.

ART Canarium DEM STAT stink STAT stink

'Those Canarium nuts smell really rotten.' (lit. they smell, they smell!)

[Malau, forthcoming]

(5) Vera'a

Ma', m- $\bar{o}n$ 'i $k\bar{e}n\bar{e}$. $\bar{O}n$ $\bar{o}n$ $\bar{o}n$ va—van, di m- $bun\bar{o}$. die PRT_1 -lie PRT_2 here lie lie lie CONT 3SG PRF-stink 'She died, and [her body] just lay there. It remained there for a long, long time — until it started rotting [lit. stinking].' [Vra.Tingtingbe.12]

Section 4.1 will discuss the links between the domain of smell and that of life and death.

The default interpretation of $*^mbuna$, as a verb, is thus pejorative. This is consistent with observations made in other languages, that *to smell* tends to mean, by default, *to smell bad* (see Krifka 2010 for Germanic languages). In order for this verb to take on a positive meaning, it needs to be qualified by a meliorative adverb – as in this Lakon sentence:

(6) Lakon

Tawäh rägä heg ga pōn kere, na ga marēs pōni flower plant this stat smell melior 1sg stat like smell avan ēhē.

'This flower smells nice, I really like its smell.' [LKN.q.Wud.032]

Another way to convert the negative meaning into a positive sense, at least for this root, is by use of reduplication ($*mbúna \rightarrow *mbuna^mbúna$):

- (iii) *mbunambúna [v.intr.] 'to smell nice', 'to emit a pleasant smell'.
- (7) Lo-Toga

Na qunequne gëwie. STAT fragrant good 'It smells nice!'

[Ltg.FP1-24b]

(8) Mwotlap

Na-kaskas gōh nō-qōnqōn lēs. ART-flower this STAT-fragrant MELIOR 'This flower smells awesome!'

(9) Mwotlap

nē-bē qōnqōn

ART-water fragrant

'perfume, fragrance' (a modern item of toiletry)

In the languages of the area (e.g. François 2004; Schnell 2011: 116-8; Malau 2016: 172-197), reduplication is used for a variety of functions, including verbal aspect, pluractionality, detransitivisation, nominalisation, and so forth. ⁶ The ability to change a pejorative meaning ('to smell bad') into its opposite ('to smell good') is only attested for this particular root *mbuna.

2.1.2 Nominal uses

The root *mbúna is also a noun, a generic word for smell:

- (iv) *mbúna [N.] 'smell', 'odor'
- (10)Vurës Kēmi tō rōrōñ bōn ino! PROG perceive ART odor DEF 1SG:FOC 'That odor you smelled, that was me.' [Vrs.Friends.47, https://doi.org/10.24397/pangloss-0003276#S47]

This noun can also be suffixed with a possessor:

*mbuná- [N.POSSESSED] 'smell, odor of (s.th., s.o.)' (v)

As far as the Proto Torres-Banks etymology is concerned, the possessed noun is nothing but the same root *mbuna followed by a possessive suffix. But due to a set of phonological and morphological changes (François 2005: 484-489), in several modern languages the possessed noun must be analyzed, in synchrony, as a different lexeme from the unpossessed noun cited under (iv) above. Indeed, the presence of a suffix on the possessed form historically entailed a shift in stress $(*^mbun\acute{a}$ - instead of $*^mb\acute{u}na)$, which resulted in quite different vowel profiles for the nouns. Thus, the language Lemerig reflects *mbúna as an unpossessed noun $p\bar{o}n$ [pun] 'odor', but *mbuná- as an obligatorily possessed (transitive) noun of the form pene- [pene] 'odor of'. Likewise, Hiw contrasts respectively qune [kwunə] $(<^*mbúna)$ and qna- [kwna-] $(<^*mbuná-)$. No morphological rule can derive one form from the other in the modern languages. These are best analyzed as two separate lexemes in synchrony, forming an etymological doublet in each language: One is a monovalent, "intransitive" noun, while the other noun is bivalent or "transitive".

^{6.} Other chapters in this volume also note that reduplication can have a semantic effect – albeit different from the one described here. See contributions by Pei-jung Lee on Formosan languages, Backhouse on Japanese, Bellamy on Purepecha, and Lambert-Brétière on Fon.

(11) Hiw

```
Noke në nis ne qna-ne.
1sg stat like art odor.of-3sg
'I like its smell.'
```

[HIW.q.Wud.032]

It also commonly appears in a construct form,⁷ followed by another noun ('odor of N'), as in (12):

(12) Hiw

```
ne qnë tayö te rē merame

ART odor.of:CSTR person ORIG on World.of.Living

'the odor of a human from this World'

[HIW.Music.18, https://doi.org/10.24397/pangloss-0003266#S18]
```

Some languages combine the possessed and unpossessed nouns into a single phrase, literally 'the odor of the smell' (or with a negative meaning, 'the odor of the stench'):

(13) Löyöp

```
Αö,
Yege
        en
             to
                    ji
                          sōw
                                 Löyöp
                                                                kyey
HUM:PL DEF dwell PROG down Divers'. Bay DEF Ureparapara 3PL
m-yoñ
              n-qēnē
                                 qōn
                                      yon
                                             n-qo
PERF-perceive ART-odor.of:CSTR smell POSS ART-pig DEM
'The people living down in Divers' Bay, on Ureparapara island, smelled the
odor of the [dead] boar.'
[lit. they perceived the odor of the smell of the Boar]
```

[Lyp.Boar.106, https://doi.org/10.24397/pangloss-0003277#S106]

2.1.3 Forms derived from the same root

The root **mbuna is central to the olfactory domain in northern Vanuatu. In addition to the meanings we just saw, the same root is also the source of certain compounds or derived forms. Thus Hiw has a verb $qnove\bar{n}i$ [k*nɔβəni] [v.tr.] 'to smell s.th., actively or not' whose root /k*nɔ-/ goes back to **mbuna. Vurës has a verb $r\bar{o}\bar{n}\bar{o}b\bar{o}n$ [runumbun] 'to perceive a smell' (Malau, forthcoming), which coalesces the noun $b\bar{o}n$ 'smell' with a vestigial verb * $r\bar{o}\bar{n}$ < *rono 'to feel, perceive'. It also has a verb $s\bar{o}b\bar{o}n$ [sumbun] 'to smell' derived from **mbuna - see Section 2.2.1.

We will encounter the same root * mbuna in the etymology of the word 'kiss' (Section 4.2), and in the language of poetry (Section 4.3).

^{7.} The construct form often ends in /e/ or /ε/. It reflects a former construct suffix *-i (cf. François 2005: 487): e.g. **mbunά-i > Hiw qnë [kwne], Löyöp qēnē [kpwɪnɪ], Vurës bune [mbyne].

Complementary roots 2.2

The previous section showed how central the root *mbuna is to the domain of olfaction, through its various reflexes across the whole northern Vanuatu area. That said, a number of other words are also found in some languages.

2.2.1 *Active and passive smelling*

In a way parallel to verbs such as 'to see' or 'to hear,' it is common for languages to encode the act of smelling something with a transitive verb taking the experiencer as its grammatical subject. As we saw earlier, this is rarely done using the root $*^mbuna$, which mostly encodes the properties of the stimulus ('to emit a smell', 'to stink', 'to be fragrant', etc.). Other roots are used instead, which differ across languages.

Lo-Toga has a verb $hi\bar{n}ev\bar{e}$ [hiŋə $\beta\epsilon$] 'to sniff, smell s.th', illustrated in (3) above. It is cognate with the verb $si\bar{n}ov$ [$si\eta o\varphi$] of Mota 'to set the snout, nose, to s.th.'

Hiw has a verb *qnoveñi* 'to smell s.th.', etymologically related to **mbuna:

(14)Hiw

Ne temët tō me, gnoveñi ne sov en rakna-se, ART ghost go:NPL hither smell ART smoke poss mother-3NSG nine ve vre~vrov. 3sg ipfv ipfv~cook

'Then came a ghost: he could smell the smoke of their mother who was cooking.'

[HIW.Brothers.12, https://doi.org/10.24397/pangloss-0003259#S12]

Vurës distinguishes between active, [+control] sniffing on the one hand, and accidental, [-control] smelling on the other. The first is a verb sōbōn, glossed 'to smell, sniff scent, active sense of smell' by Malau (forthcoming). The second word is a verb $r\bar{o}n\bar{o}b\bar{o}n$ 'to smell, passive sense of smell' (ibid.).

Mwotlap also makes the same distinction between [+control] and [-control] smelling. The first verb is *hēmen* [hɪmɛn] 'to sniff, try to smell s.th.':

Mwotlap (15)

```
No-tok
         mē-hēmen sas
                             no-qo.
ART-dog PERF-sniff finding ART-pig
'The dog found the pig by sniffing (its trace).'
```

[Mtp.AG4-15]

Mota has a cognate verb *soman*, glossed 'to put the nose to, to smell'. Codrington & Palmer (1896: 177) explain it as a compound 'put the nose', from a verb so and the noun manu- 'nose'.8

Mota manu-'nose' reflects Proto Torres-Banks *mandu (François 2005: 496).

As for the [-control] sense of 'smell', it would be expressed using mokheg [mokhey] 'to breathe':

(16)Mwotlap

No mō-mōkheg sas nō-mōkhe hapqiyig 1sg PRF-breathe finding ART-smell something burnt 'I'm smelling a burning odor.'

[Mtp.AP09-23]

Both sentences (15) and (16) use the same construction <Verb + sas>. The postverb sas, glossed here 'finding', combines with various verbs in a serial-like pattern, that constructs equivalents of English 'to find/recognize (through a certain action)':

- et sas <look finding> 'to find s.th. (by looking)',
- yonteg sas < listen finding> 'to recognize s.th. (by hearing)',
- gen sas <eat finding> 'to recognize a taste (eating)',
- van sas <walk finding> 'to stumble upon s.th. (while walking)'

The difference between the two sentences above is that, in (15), hēmen sas refers to a dog finding an animal by actively sniffing, whereas (16) mokheg sas expresses the act of recognizing a certain smell by accident, by merely breathing.

While the verbs cited above all belonged strictly to the olfactory domain, the majority of languages actually lack a dedicated transitive verb for 'to smell'. Instead, they use a generic verb 'to perceive, feel, hear' that is used for all non-visual senses. That verb reflects an etymon *rono (or its augmented form *ronotayi):¹⁰ See its reflexes as Vurës rōrōn in (10), Löyöp yon in (13), Lehali yen in (17), Mwesen ronte in (18):

(17)Lehali

Nö m-yeñ ke n-qunu gōn. 1sg perf-perceive art-odor.of fish 3sg stat stink 'I'm smelling the odor of fish, it stinks!'

[q.Fish.003]

(18)Mwesen

Le masawre nē me pisis so nēr a ronte no, LOC moment 3sg PERF fart like that 3PL AOR perceive

pene-gi.

ART odor.of-3sg:inan

'As he farted like that, the others smelled the odor.' [Msn.Qet.067, https://doi.org/10.24397/pangloss-0002302#S67]

Similar constructions are found throughout the Torres-Banks area (François 2011: 216-7).

The longer form reflects an earlier applicative suffix *-akin (cf. François 2005: 482). The radical itself is a well known Proto Oceanic etymon *ronoR 'to perceive, feel, hear' (Osmond & Pawley 2016: 516).

2.2.2 Breath, smell

In all languages of northern Vanuatu, the generic noun for 'smell' is the root *mbuna we saw in Section 2.1.2. Yet one language, Mwotlap, assigns this meaning to the root *mōkhe* [mukhɛ]. The original meaning of *mōkhe* is '[N.] breath', linked with the verb *mokheg* 'to breathe' we saw in (16). This word sometimes refers to the 'breath of life' (François 2008: 211), as in this story of magical resurrection:

(19)Mwotlap

Kē me-wyeh kē, ma-tañ na-taybe-n, van i 3sg perf-blow 3sg perf-touch art-body-3sg go cont, go CONT nō-mōkha-n ni-van lok me ēgēn. ART-breath-3sg AOR-go back hither now

'[The witch] blew over him, massaged his body, on and on, until his breath came back to him?

[Mtp.Prince.63, https://doi.org/10.24397/pangloss-0003273#S65]

But the same transitive noun *mōkhe*, combined with an inanimate possessor, refers to the odor of something, see (16) 'a burning odor'.

In a way similar to (13) above, the two words $m\bar{o}khe$ and $q\bar{o}n$ can combine in Mwotlap:

(20)Mwotlap

qele kē: nō-mōkhe Kēy yonteg 3PL perceive like this ART-odor.of smell 'Suddenly they perceived a strong smell.'

[Mtp.Roua.162]

Synthesis 2.3

Table 1 sums up our first observations on the basic vocabulary of olfaction generic nouns for *odor*, generic verbs for *smell*. The table shows a sample of three modern languages (Hiw, Mwotlap, Mota) together with their shared ancestor, Proto Torres-Banks (PTB). Grayed cells involve reflexes of the root **mbuna.

Table 1. Generic lexical items referring to smells and smelling, in three modern Torres-Banks languages

		РТВ	Hiw	Mwotlap	Mota
a smell (espec. bad)	N.INTR	*mbúna	qune	nō-qōn	рипа
the smell of X	N.TR.	*mbuná	qna	nō-mōkhe	puna-
smell bad, stink	V.INTR.	*mbúna	qune	qōn	puna
smell good, be fragrant	V.INTR.	*mbunambuna	qunequne	qōnqōn	рипарипа
smell (actively)	V.TR.	*roŋo[tayi] + (other verbs)	qnoveñi	hēmen	soman
smell (accidentally)	V.TR.	*roŋo[tayi]	qnoveñi, r̄ōñ	mōkheg sas, yonteg	roño[tag]

The language of Mota will be further illustrated in Section 3.2 below.

3. Langue vs. parole: Two different approaches

3.1 A reduced lexical domain?

Northern Vanuatu languages show a relatively diverse vocabulary related to the senses. As an example, the lines below list a number of meanings that are lexified in the language Mwotlap and attested in my corpus (cf. François 2020).¹¹

Many words relate to the visual sense:

- verbs 'to see, to look', 'to appear', 'to disappear'
- adjectives of color: 'white', 'black', 'red', 'blue / green', 'yellow'
- other adjectives: 'shiny', 'clear', 'transparent', 'blurred', 'colorful', 'striped'.

The sense of **hearing** is also well represented:

- verbs: 'to shriek', 'to burst', 'to make rustling noise', 'to thump', 'to whisper', etc.
- adjectives: 'loud', 'deafening'
- terms related to speech, to music and singing (cf. François & Stern 2013).

The sense of **touch** is encoded by a few lexemes:

- verb 'to reach out to, to touch'
- adjectival pair 'hot' vs. 'cold' (cf. François 2015),
- adjectives 'smooth', 'rough', 'prickly', 'urticant', 'hard', 'soft'.

The domain of **taste** has a few words too:

- 'tasting bad, salty, bitter' vs. 'tasting good, sweet, tasty'
- 'raw', 'ripe', 'charred', 'nicely crispy', 'crunchy', 'brittle', 'too ripe', etc.

In comparison, the domain of olfaction is perhaps the least developed, lexically speaking. Within my 100,000-word corpus of Mwotlap narratives and conversations, the main vocabulary items that appear on a regular basis are the generic terms featured in Table 1 above. As for items describing specific odors, my corpus includes only two:

- nō-qōn-man̄an N. 'strong smell of fish'
- taltalhō ADJ. 'smelling of smoke' (cf. hō 'smoke')

^{11.} For the sake of brevity, this section leaves out the lexical forms themselves.

to which we may add a special intensifier for smells:

tañayñay INTSF. intensifier for bad smells ($q\bar{o}n$).

In sum, compared with the other senses, the lexicon of olfaction appears to be quite limited in everyday speech. Virtually no cultural practice involves the recognition, selection or description of smells. They are seldom commented upon even when cooking or discussing food. The reason for this, one might speculate, is that traditional cooking techniques lack any spice, and often consist in boiling meat, or steaming vegetables; the cooked food resulting from these practices often lacks much noticeable smell.

The apparent exception of Mota

In spite of the above, one language in the area has been described to have a much richer olfactory vocabulary - namely, Mota. The language of Mota was the object of a thorough dictionary by the missionary Robert Codrington and his aide John Palmer, at the end of 19th century (Codrington & Palmer 1896).

The present section recapitulates all the lexical items related to olfaction in the Mota dictionary. Table 2 lists the generic terms related to the domain – some of which were already featured in Table 1 above. I also indicate the syntactic category of each entry, an information not provided by the original authors.

Table 2. Semantically generic lexemes referring to olfaction, from the dictionary of Mota (Codrington & Palmer 1896)

Mota	categ.	gloss
puni-u	N.TR	'smell, scent'
puna-i	N.TR	'smell, scent'
sagia-i	N.TR	'the peculiar smell of things which hangs about them and remains on the hands of those that touch and handle them'
pun ~ puna	V.INTR	'to smell, active and neuter, stink'
рипарипа	V.INTR	'generally of pleasant smells, by no means always'
punpun	V.INTR	 'generally of pleasant smells' 'to snuff in the native way of kissing'
puna ilo	V.TR	[smell see] 'to try the smell, try by the smell'
[ри]ририп	V.TR	'to snuff at, in the native way of kissing an infant'
roño[tag]	V.TR	'to feel, hear, smell, taste, apprehend by senses'
гопо рипа	V.INTR	'to have the sense of smelling, discover by smell'
soman	V.TR	'to put the nose to, smell'
vapunas	V.TR	'to cause a smell to diffuse itself, to give a smell to a person'

The next two tables show descriptive words referring to particular smells. Table 3 lists unpleasant smells; Table 4 pleasant smells.

Table 3. Semantically specific lexemes referring to unpleasant smells, from the dictionary of Mota (Codrington & Palmer 1896)

Mota	categ.	gloss
noasu	N	'the smell of smoke in food or water'
pun talatlat	N	'smell of stagnant water' (talatlat 'mosquito larvae')
риптао	N	'mildew, mold; primarily of the smell of it'
pun taligas	N	'smell of the liquor of fire, i.e. of the moisture carried up by the smoke of wood fire'
puna talota	N	'a bad smell from a man [who never washes]'
pun sagsagie gopae	N	'the smell of the odor of a sick person'
pune qalqalosur	N	'the smell of a thing that has been dead a long time, skeleton'
mañana	ADJ	'sickly, as some fruits in smell when ripe, as the smell of fish to woman lying in'
mañamañana	ADJ	'sickly in smell'
mañarñar	ADJ	'sickly smell of fish or swamp'
roma	V.INTR	'to taste or smell rank, putrid'; 'to have bad after-taste in the throat'

Table 4. Semantically specific lexemes referring to pleasant smells, from the dictionary of Mota (Codrington & Palmer 1896)

Mota	categ.	gloss
vakotokoto	ADJ	'very nice in smell, as gardenia'
lalañara	ADJ	'cloying sweet'
we pun lalañara	V.PHR	'smells sweet, but hurts the nose between the eyes'
puna gagavug	V.PHR	'to smell with a thick, abundant, diffused, scent'
soke	V.INTR	'sweet in smell'
sokesoke	V.INTR	'sweet in smell, pungent, what is agreeable in smell to natives'
pune sagsage- ta-marama	N	'all the sweet smells of the world; said of quantities of flowers, scented leaves'

The impressive number of lexemes thus collected by the authors begs the question: Is Mota different from the languages around it, in showing a particularly rich elaboration of the smell domain? Or is the apparent peculiarity of Mota rather a consequence of a difference in method for data collection?

Indeed, it appears that many entries of the Mota dictionary were written by native speakers: "The examples which are given with some words are almost all written or dictated by natives" (Codrington & Palmer 1896: viii). That work was undertaken mostly at the Melanesian Mission on Norfolk Island, by Mota-speaking seminarists. In a separate work, Codrington (1885) explained in what exact conditions he collected his data on Mota:

> After some twelve years' acquaintance with the language, talking, teaching, and translating (...), and after having acquired more or less correctly a considerable vocabulary of Mota words, I began to buy words that I did not know at the rate of a shilling a hundred from the scholars at Norfolk Island. I left off when lists of three thousand words unknown to me had come in. (Codrington 1885: 100)

In doing so, speakers evidently appealed to their native *competence* – as opposed to a linguist's corpus-based survey, which mostly depends on speakers' performance in particular circumstances. This method of data collection explains the precious quantity and quality of lexical information in the published dictionary of Mota, notably in the domain of olfaction.

That contrast between competence and performance (cf. Lyons 1996), or what Saussure (1916) initially described as langue vs. parole, is crucial here. The data from the Mota dictionary strongly suggest the existence of a potentially elaborate lexicon of olfaction in northern Vanuatu languages - a lexicon which could be revealed through systematic elicitation such as the one conducted, with appropriate equipment, by Majid & Burenhult (2014). However, much of those semantic contrasts tend to remain latent in daily discourse. Because smells are mentioned so rarely in ordinary social activities, the vocabulary capable of describing them can remain absent from even large corpora and is only activated in rare occasions.

Connotations and cultural associations of smells

This final section will examine the semantic domains with which olfaction is most often associated in conversations and stories – particularly, in my literary corpus. As we will see successively, smells are associated with (i) the notions of Life and Death, (ii) kissing and affection, and (iii) the celebration of Nature.

Life and death

Besides my field notes taken from language immersion, my literary corpus includes a total of 263 narratives in 22 languages, of which 168 are transcribed electronically. These folk narratives are often stories of Life and Death: children fearing an Ogre, humans involved in warfare, or in a struggle against evil spirits, travel to the Underworld, stories of witchcraft and magical resurrection (François forthcoming).

These stories provide the context where smells are most often mentioned in my corpus, due to the link drawn explicitly between smell and death. This connection is frequently found in Austronesian cultures (see Leenhardt 1947; Ogier-Guindo 2011 for New Caledonia; Howes 1988 for Western Melanesia), and is also well represented in northern Vanuatu folklore.

The smell of death 4.1.1

Death is often associated with the root *mbuna 'smell, odor' – evoking the smell of a rotting corpse. One example was cited already in (5) above, but many others could be quoted. Some sentences clearly refer to the stinking odor of a dead body – such as (13) in Section 2.1.2 above, that followed the death of a giant boar.

By metonymy, the root *mbuna can refer to the very process of decay, in which the actual smell is semantically backgrounded:

(21)Hiw

Tamerën on opē tayö onqune, qune pa moment sbjv art body.of person sbjv decay decay finish from sise vive ne sir. ne. sir, ART bone 3PL collect ART bone

'Whenever someone's body would decay, once it finished decaying (?stinking) from the bones, people used to collect those bones.' [HIW.Religion.005, https://doi.org/10.24397/pangloss-0003252#S5]

Following a further step in semantic change, the root *mbuna can mean 'to be dead, espec. for a long time; be well and truly dead' (serving as a sort of intensifier of the ordinary verb 'to die'):

(22)Mwotlap

nēk ēh lok. Lō-qōñ tēvēlēm-negi e tō Ba nēk mal LOC-day five-ordin TOP then 2sg live revers but 2sg CPLT gōn; tō nēk m-ēh lok ēgēn. decay/be.dead but then TOP 2sg PERF-live REVERS now 'On the fifth day, you came back to life. You were already well and truly dead! But then, eventually you became alive again.' [Mtp.Prince.117]

A story about Jesus explains how he rose from the dead, after only three days. His recent death is expressed by negating the verb $q\bar{o}n$ ('to decay, be dead for a long time'):

(23)Mwotlap

Kē n-et lapgetō: na-taqmē-n et-gōn tateh. te. ART-body-3sg NEG₁-decay NEG₂ no 3sg Art-person still 'He was still a human: his body had not started decaying.'

[Mtp.Iqet.JStil.040]

Interestingly, the absence of a bad smell is here correlated with the idea of being still human (*n-et lapgetō*). By contrast, the strong smell associated with the decay of death means that one is losing their human status, entering the world of the Dead, becoming a spirit (cf. Codrington 1891: 260, 277).

The smell of life 4.1.2

In a symmetrical fashion, the world of the living also has its own characteristic smell – at least, seen from the point of view of spirits and ogres. Many stories tell of how a man-eating bogeyman recognizes his preys – whether a child or an adult – through their pleasant smell:

(24)Mwotlap

Qeso no mō-mōkheg sas n-et аē me mi DUBIT 1SG PERF-breathe finding ART-person EXIST hither with gōh kē! gēn lincl:pl here dem

'I think I smelled a human amongst us here!'

[Mtp.Hell.24]

The cosmology of northern Vanuatu (Codrington 1891; Vienne 1984) divides the universe into two parallel realities: *marama 'World of the Living; hence world' vs. *mbanoi 'World of the Dead, Underworld' (François 2013: 229). The humans coveted by cannibal spirits are described as coming from 'Marama', from the World-of-the-Living:

(25)Hiw

Noke anoveni ne tayö тē merame qnë te ART odor.of human ORIG upon World.of.Living PERF pa noke yiñetog tom ne. but 1sg not.know comp where DEM 'I smelled the scent of a human from the World! I wonder where he is.'

[HIW.Music.18, https://doi.org/10.24397/pangloss-0003266#S18]

The scent of a living person can itself be described as 'the scent of *Marama*' ('the scent of the Living'). Whenever an Ogre visits a village of humans, he utters a particular formula, illustrated in (26) for Mwotlap:¹²

(26)Mwotlap

nō-mōkhe Hmm,sesey ta-myam gēn! Nō-mōkhe ORIG-World.of.Living DEM ART-odor.of EXCLAM ART-odor.of (?)

The term sesey (or sēysēy) found in that formula has no known meaning or etymology: It is only found in this particular formula.

sesey ta-myam nōk a ne-sewsew!
(?) ORIG-World.of.Living DEM REL STAT-warm

'Fee-fi-fo-fum, I smell the blood of a living man! I smell the warm blood of the Living!' [Mtp.Two-princes.040]

Conversely, humans keep with them the smell of the Living, should they – like Ulysses or Orpheus – wander the abode of the Dead:

(27) Vurës

No kara mol me ti den taval maram.

1sg imm.pst return hither pst from other.side World.of.Living

Bune ta maram go tog vēti min no.

odor.of:cstr orig World.of.Living stat stay still with 1sg

'I just came back from the World of the Living. The smell of that World is still upon me.'

[Vrs.Friends.33, https://doi.org/10.24397/pangloss-0003276#S33]

From the point of view of the hungry ghost, the scent of the Living is fragrant. Sentence (28) is taken from a famous Melanesian story, in which one live man visits the abode of the Dead to dance with them in the dark. Every time the ghosts recognize the scent of a human, they interrupt their dance and try to chase him:

(28) Vurës

Nēr a lak, a lak, nēr a rōnteg o 3PL AOR:NSG dance AOR:NSG dance 3PL AOR:NSG perceive ART bune bunbun ta maram gö luwō idian. odor.of fragrant ORIG World.of.Living STAT big INTSF 'So they danced on and on, until they suddenly recognized the fragrant smell of the Living hovering all around them.'
[Vrs.Friends.34, https://doi.org/10.24397/pangloss-0003276#S34]

The smell of Death and the smell of Life thus form a mirror-like pattern in the olfactory cosmology of Vanuatu. While humans associate death with the stench of decay, the Dead, in return, praise the Living for their pleasant, mouthwatering scent.

4.2 From smell to kiss

An etymological connection exists between 'smell' and the expression of affection which can be described as 'kiss'. Indeed, the Proto Torres–Banks etymon for 'kiss' reconstructs as a verb **mbumbuna*, which appears to result from the reduplication of the root **mbuna* 'smell':

*mbumbuna [v.Tr.] 'to kiss' (vi) Mwotlap pōpōn [pupun];¹³ Vurës bōbōn [mbumbun]; Mwesen pupun [pupun]; Mota pupun [pupun], punpun [punpun].

The reason lies with the way in which Melanesian cultures traditionally perform kisses – or rather, what would be the closest equivalent to a kiss. The practice in question is typically directed at young infants, and expresses affection. Rather than involving the lips as in Europe, the action involves physical contact between the kisser's nose and the kissee's face, along with a brief snuffing gesture; see Figure 1. Codrington & Palmer (1896: 124) thus gloss Mota pupun as "to snuff at, in the native way of kissing an infant".



Figure 1. A Melanesian kiss (picture by author: AF)

The snuffing action is reminiscent of that of sniffing or smelling, which accounts for its connection with the verb 'to smell'. The same pattern of colexification between 'kiss' and 'smell' is widespread in a large number of languages from Southeast Asia and Western Melanesia (Schapper 2019) and has been observed elsewhere in Oceanic (Osmond & Pawley 2016: 505). Northern Vanuatu has evidently kept traces of that areal pattern, albeit through an etymological connection.

^{13.} The form $p\bar{o}p\bar{o}n$ contradicts the phonology of Mwotlap, which lacks a phoneme /p/: The expected reflex of * $^{*m}bu$ - would be a labial-velar consonant [\widehat{kp}^{w}] – see Section 2.1.1. The form can be explained either as a loan from Mota pupun (François 2001: 69), or as an instance of "baby talk", which is not unlikely in view of the word's meaning.

In modern Vanuatu languages, the verbs illustrated in (vi) have lost any conscious connection with the domain of olfaction. They are now exclusively linked to the expression of affection and tenderness, whether with children or with adults:

(29) Mwotlap

Kē ni-oytitin goy kē van qele gōh, ni-pōpōn kē...

3sg Aor-hug around 3sg thither like this Aor-kiss 3sg
[A mother reunites with her toddler after a long separation.]

'She hugged him like this, she kissed him...'

[Mtp.Romanmangan.185, https://doi.org/10.24397/pangloss-0002300#S185]

The same verb is nowadays used as an equivalent to European concepts of lipkissing, including in the romantic sense:

(30) Mwesen

Na gate pupun nēk ga muul anan. 1sg neg:real kiss 2sg stat long.time intsf 'I haven't kissed you for ages.'

[Msn.12.10.06]

4.3 The fragrance of nature

I will finish this study of olfaction in northern Vanuatu by looking at how smells are sometimes evoked in poetry. The oral literature of northern Vanuatu includes sung poems of various genres (François & Stern 2013: 90–96). One particular genre, which goes by the name of *Titi* songs, shares some similarities with the Japanese *haiku*: It involves short, one-stanza poems rich in sensory images and feelings. During performance, *Titi* poems are sung by a group of musicians as they beat the rhythm for the dancers.

A*Titi* song will typically describe powerful emotions or sensations, through sensory perceptions of various sorts – whether involving sunlight or colorful birds, waterfalls or thunder, earthquakes or ocean waves (François & Stern 2013: 112–117). These songs often celebrate the poet's feeling of awe before the beauty and power of Nature. One of these poems, recorded on Motalava island in 2003, evokes a particular smell.

A Titi song – "Liana flower"	
Tewes gaverur ē	Flowers of the great vine
ge bōnbōn ē ge bōn ē bōn e	they smell lovely, o so lovely
bōnen sav e?	What do they smell of?
bōne ses row ē la ē	They smell of seashells on the shore
O ē 0 0 0 e	O e o o o e
a e a e a e — o:	a e a e a e — o-

The language of the song is neither Mwotlap nor any other spoken language: It is a special lect reserved for sung poetry (Codrington 1885: 309; François & Stern 2013: 90–92). Note here the alliteration triggered by the syllable $b\bar{o}n$ [mbon], repeated six times - even more if we take into account the repetitive structure of the actual sung performance.¹⁴ The forms in the second verse ($b\bar{o}nb\bar{o}n$, $b\bar{o}n$ e $b\bar{o}n$) reflect the reduplicated adjective **mbuna*fragrant' (cf. Section 2.1.1), while the suffixed forms $b\bar{o}ne(-n)$ correspond to the transitive noun *mbuna- 'odor of' (cf. 2.1.2).

While smells are mentioned rather rarely in the realm of cooking, they are more often commented upon in relation with the environment. This was already visible in sentences (3), (4), (6), (8) above, as well as in various glosses of the Mota words in Section 3.2 – e.g. 'sickly [of fruit, fish]', 'smell of flowers, scented leaves', 'smell of the moisture carried up by the smoke of wood fire, 'very nice in smell, as gardenia. This sensitivity to the smells of Nature is precisely central to the poem Liana flower.

This song unifies the two complementary worlds that form the universe of Pacific islanders (cf. Bonnemaison 1996): on one side, the realm of the forest, represented here by the 'flower of the great vine'; on the other side, the world of the ocean – evoked through the odor of 'seashells on the shore'. The poem bridges these two worlds together by paying attention to a particular intoxicating smell, one that is shared between the forest and the sea.

Conclusion

Languages differ in the degree of semantic elaboration they assign to the lexicon of olfaction. While the ecological environment - in particular, the presence of tropical rainforest - may sometimes favor sophistication in this area, it is not necessarily a sufficient condition. Indeed, we saw that Vanuatu, a tropical archipelago, hosts languages in which the lexicon of smells seems to involve few semantic distinctions.

My corpus-based investigation suggested the lexicon of olfaction may have limited elaboration in this part of the Pacific. One pervasive root, a polycategorial (noun-verb-adjective) form reconstructable as *mbuna, is used for various meanings, and seems to be complemented only by two or three other lexemes in each language. When smells are mentioned in speech or stories, they tend to be

^{14.} The sung poem can be heard on track #27 Liana flower of our discographic publication (François & Stern 2013), performed by Ken Fraser and his musicians.

culturally associated with two domains where human activities play a secondary role. Odors and smells are, first, linked with the mythological contrast between the World of the Living and the World of the Dead. Second, smells are frequently mentioned when paying attention to the scents of the environment, whether fish or seashells, young flowers or ripening fruit. It is as though Vanuatu cultures associated the olfactory domain, first and foremost, with the cosmological dimensions of Nature – as they pay attention to growth and decay, to life, and death. Other than those occasions, olfaction is seldom mentioned in conversation.

That said, the dictionary of Mota revealed the existence of numerous words describing smells, whether pleasant or unpleasant, in the vocabulary. This rich olfactory lexicon was brought to light by Codrington's method of data collection, which had native speakers carry out introspection and venture lexical items from their own language competence. In sum, the key observation in northern Vanuatu is not the paucity of olfactory words – since there appears to be quite an elaborate lexicon that can be latent in the language. Rather, what is crucial is the gap between underlying *langue* and actual *parole*, or *competence* and *performance*.

This low discourse frequency suggests that the olfactory vocabulary in northern Vanuatu languages is comparable to niche areas of the lexicon – similar to names of uncommon species, seldom-named winds, technical terms for navigation or architecture: The words do exist in the system, yet they surface rarely in speech. On the one hand, the existence of specific lexical items entails that certain particular odors are "nameworthy" enough (Mithun 1984: 848, 1997: 367) to warrant being lexified and memorized by speakers. Yet on the other hand, the infrequent occurrence of odor names in discourse must be explained by the local communities' cultural practices, which give little prominence to specific smell terms. In this part of the world, smells are not saliently tied to any major social activity – whether culinary, medical, hygienic, recreational or ritual.

This preliminary study calls for a natural follow-up: namely, the systematic investigation of olfactory words in the lexicon (*langue*) of northern Vanuatu languages, ideally using the sophisticated elicitation kit described by Majid & Burenhult (2014). Such a methodology, if generalized across continents, could make results cross-linguistically comparable.

Finally, besides listing olfactory words in each language's lexicon, the next step would be to identify what social contexts do favor the manifestation of these words in discourse (*parole*) – and hence, their acquisition by language learners. The situations involved in the description of specific odors are likely to differ considerably depending on which *communities of practice* (Lave & Wenger 1991; Wenger 1998; Meyerhoff & Strycharz-Banaś 2013) individual speakers belong to in the course of their lives. This is also an area of the lexicon that is likely to erode or evolve rapidly, as the communities' ways of life adapt to a fast changing world.

Abbreviations

Examples are glossed following the Leipzig glossing rules. Other abbreviations include the following:

ANAPH	anaphoric	MX	mixed gender
AOR	aorist	NMLZR	nominaliser
COMP	complementiser	NPL	non-plural (verbal number)
CONAT	conative	NSG	non-singular (number)
CONT	continuative	ORDIN	ordinal numeral
CSTR	construct form	ORIG	originative
	(indexing possessor)	PERF	perfect aspect
DUBIT	dubitative modality	PRT	preterite
EXCLAM	exclamative	POSS	possessive classifier or linker
FOC	focus	REL	relativizer
HUM	gender classifier for humans	REVERS	reversionary
IMM.PST	immediate past	SBJV	subjunctive
INTJ	interjection	STAT	stative aspect
INTSF	intensifier	TOP	topicaliser
MELIOR	meliorative intensifier		

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