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## Toward a Comparative Typology of 'Eating' in Kanak Languages

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This paper aims to explore the diversity of expressions for food ingestion in some Oceanic languages, and intends to map out the convergences and divergences attested among these languages. Six main points are addressed: first, a brief historical and environmental survey will be presented; second, the parameters distinguishing 'eat' verbs among the Kanak languages will be compared with the differentiation made in other Oceanic languages. In the notional domain under discussion, each Kanak language has its own food noun categories, depending on physical, nutritive or symbolic (cultural) criteria, and distinguished on the basis of the verb they combine with. Third, a typological perspective will show how Kanak is organized with respect to the contextual aspects incorporated into the meaning that is expressed together with the basic action of eating. Then, we will discuss some frequent distinctions found in Oceanic languages to extend the comparison. Fifth, the role of possessive classifiers reserved for specific kinds of food nouns and their relation to different 'eat' verbs will be investigated; and finally, some remarks will be made on the diversity of constructions available for 'eat' verbs in Oceanic languages.

**Keywords:** Kanak/New Caledonian Languages; Polynesian Languages; Comparative Lexicology; Eating Verbs; Food Categories; Possessive Classifiers; Transitivity

1. INTRODUCTION.¹ The semantic domain of food, and more precisely of the action of food (and drink) ingestion, has been of interest in various subfields of linguistics: typology (Newman 2009), syntax (Næss 2011), semantics (Wierzbicka 2009), and historical comparison (Lichtenberk 1994). All of these studies address the fact that eating and drinking are vital needs and universal activities but are not uniformly categorized and expressed in the world's languages:

When one studies the closest counterparts of the English concept 'eat' and 'drink' in many different languages, in many different geographical and

<sup>1.</sup> We are very grateful to the two anonymous referees for their careful reading and thoughtful comments toward improving our paper. We also would like to thank Ekkehard König and Yuko Otsuka for their valuable suggestions.

Non standard abbreviations (those not in *The Leipzig Glossing Rules*) are: AGT, agent marker; DEIC, deictic; N, noun; P\_CL, possessive classifier; RESTR, restrictive particle; SPC, specific article; SUF, suffixed form.

cultural areas, one discovers that there are really many different ways in which the "bodily intake of substances" can be conceptualized and categorized. The familiar English, and more generally, European division between 'eating' and 'drinking' is by no means the only one. If we try to interpret the conceptualizations reflected in other languages through the prism of this one, we will be imposing on them an Anglocentric, or Eurocentric, perspective. (Wierzbicka 2009:66)

In section 2, through a brief historical survey, we will first have a look at the etyma that have been reconstructed in Proto-Oceanic (POc) (section 2.1) for the eating verbs, as well as the reflexes now found in Oceanic languages (section 2.2). Then we will briefly present the relevant distinctions in Kanak languages and describe to what extent they reflect the POc reconstructions (section 2.3),<sup>2</sup> pointing out which differentiations already existed in POC, and which innovations took place in the new environment, as new kinds of food became available when the Austronesians reached New Caledonia. In section 3, we will more specifically examine the Kanak languages through a comparative survey of the different 'eat' verbs, their restrictions and the contextual features incorporated in them. A more detailed characterization of the relevant subsystems in Kanak languages will then be carried out (section 4), extending the comparative perspective to other Oceanic languages and to European and other languages. A brief sketch of cross-linguistic observations in section 4.1 will be used to shed additional light on the specifics of Kanak languages, which will then be further characterized in their genealogical and areal specifics through a detailed comparison with other Oceanic languages (section 4.2). The case of Kanak languages with possessive classifiers reserved for specific kinds of food nouns will be described in section 5.1, and the semantic features and restrictions of these possessive classifiers will be compared with the ones described earlier for the 'eat' verbs (section 5.2).

In section 6, we will discuss the morphosyntactic characteristics of the 'eat' verbs in Kanak languages from a cross-linguistic perspective (Newman 2009). It will be shown that they do not behave like ordinary transitive verbs (Næss 2011), occurring in different types of constructions and showing selectional restrictions on the patient (Gast et al. 2014). Our conclusion (section 7) will summarize the main findings characterizing the Oceanic "world of nutrition and eating", and more specifically, the New Caledonian data.

We will leave aside many other aspects concerning the fundamental human act of eating: nouns for food, all kinds of verbs expressing the manner of eating, the quantity ingested, or the social behavior. According to Ross (2008:36–37): "People in traditional Oceanic-speaking villages ate one cooked meal a day, usually after the day's work. The meal typically consisted of starchy staples,

 <sup>&</sup>quot;Kanak" has become the usual and politically correct term to designate the autochtonous inhabitants of New Caledonia and their vernacular languages. More information on these languages can be found on the *Académie des Langues Kanak* website (http://www.alk.nc).

made more appetising by the addition of coconut milk, leafy vegetables and sometimes some meat or fish." Food preparation has been well described by Lichtenberk (1994) and his article would be an excellent starting point for further investigations of food preparation in specific Oceanic languages. The drinking domain (understood as "the ingestion of liquid nutrient") will only be mentioned in its relation to the eating domain (section 4.2) and would deserve a much more detailed investigation on its own.

#### 2. THE VERB 'EAT' IN OCEANIC LANGUAGES.

**2.1. HISTORICAL CONSIDERATIONS.** The Oceanic subgroup (a subgroup of Eastern Malayo-Polynesian, which in turn is a subgroup of Malayo-Polynesian, a first-order subgroup of Proto-Austronesian) is the largest and very well-defined subgroup of the large Austronesian language family. It includes around 500 languages, spoken along the coasts of Papua New Guinea, in the nearby and remote Melanesian islands (the Bismarck archipelago, Bougainville, Solomon Islands, Vanuatu, New Caledonia, and Fiji), in Micronesia (except for Chamorro and Palau, both belonging to the Western Malayo-Polynesian group), and in Polynesia, as far as Hawai'i and Rapanui (Pawley and Green 1984; Blust 2009).

Oceanic speech communities vary enormously in their size, from Fijian (with over 300,000 speakers) or Samoan (with more than 250,000 speakers) to an average size of 4,000 speakers in Papua New Guinea and the Solomon Islands, 2,000 in New Caledonia, and about 1,500 in Vanuatu. A number of these languages are moribund, each with fewer than ten speakers according to the latest available census data. We can roughly distinguish between a Melanesian multilingual archipelago on the one hand, and monolingual Micronesian and Polynesian islands, on the other. It is indeed in Melanesia that we find the highest linguistic densities in the world, as for example in Vanuatu, with more than a hundred languages for 285,359 inhabitants (2018 census).<sup>3</sup>

The first settlers in Remote Oceania (Temotu Province in the Solomon, Vanuatu, New Caledonia, Fiji, Polynesia, and Micronesia) introduced domesticated plants (banana, taro, sugarcane, yam, etc.) as well as dogs, pigs and chickens. The history of cultivated plants and domesticated animals in Oceania is well documented (Blust 2017). It deserves special mention that neither dogs nor pigs were originally introduced or survived in New Caledonia before the contact with Europeans.<sup>4</sup> The only land mammals existing in New Caledonia were white rats and flying foxes (fruit bats). Consequently, the main protein sources available for the Kanak people were birds and fish. There is no doubt, on the other hand, that the Kanak settlers arrived with tubers, fruits and tree crops and practiced horticulture right from the start, as the early

<sup>3.</sup> https://www.populationdata.net/pays/vanuatu/.

The first dog, named Rhin, arrived in New Caledonia in 1845 (Haudricourt and Dibie 1987:140).

Lapita sites found in Remote Oceania attest (Kirch 2000:109; Pawley 2017:294).<sup>5</sup> Horticulture and fishing were the main food resources and it is not surprising that the diversity we found in 'eat' verbs are mainly based on these activities.

We will now look at the reconstructed terms for 'eat' found in the main Austronesian subgroups to which the Kanak languages belong. In Proto-Malayo-Polynesian (PMP) as well as in POC, a pair of verb forms are reconstructed for the general meaning 'eat', one intransitive and the other transitive:

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(1) PMP *paŋan *kaen-i
POC *paŋan *kani
INTR TR
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PMP \*paŋan 'eat (INTR)' is derived from the root \*kaen 'eat' by affixation of the intransitive prefix \*paN- while PMP transitive \**kaen-i* includes the location undergoer voice suffix \*-*i* (which became the POC transitive suffix \*-*i*) (Ross et al. 2016:224).<sup>6</sup>

**2.2. 'EAT' VERBS IN OCEANIC LANGUAGES.** In many Oceanic languages, \*kani has replaced \*paŋan, but some languages still make a distinction between 'eat (TR)' and 'eat (INTR)', such as Ramoaaina (Meso-Melanesian): *an* 'eat (TR)' < POC \*kani and *wəŋan* 'eat (INTR)' < POC \*paŋan; this is also the case in several Southeast Solomonic languages, such as Toqabaqita: *qani* 'eat (TR)' < POC \*kani versus *fana* 'eat (INTR)' < POC \*paŋan and in some South Vanuatu languages, or with a causative meaning (North Central Vanuatu and Polynesian subgroups), as East Futunan *fāgai* 'feed s.o.'. As we will see, it is also the case in Iaai, a Kanak language spoken in Ouvéa (Loyalty Islands).

POC \*paŋan (INTR) and \*kani (TR) probably both meant 'eat (in general)' and 'eat starchy food', including yams, taro and other root crops, cooking bananas and breadfruit.

As mentioned by Ross (2008:39–41), "In Oceanic languages for which there is detailed information about verbs of eating, there is usually at least one other 'eat' verb, with the meaning 'eat starch and protein food together'. Sometimes there is also a verb meaning 'eat meat', 'eat fish' or 'eat protein food'."

Ross (2008:39) observes there are up to five different verbs of eating in Oceanic languages meanings depending on the food ingested:

- 1. 'eat starchy food; eat (generic)' (all languages): POc \*kani and \*paŋan
- 2. 'eat food consisting of starch and additional ingredients (coconut milk, leafy vegetables, fish or meat)': POC \*tamaji; reflexes are found in a few

<sup>5.</sup> The Lapita people moved from South-East Asia three thousand years ago on big canoes to settle in the majority of the previously uninhabited Melanesian and Polynesian islands. The most significant vestige of their settlement remains the finely decorated potteries found in the Bismarck Archipelago, New Caledonia, Vanuatu, Fiji, Samoa and Wallis-et-Futuna. Lapita is then the word used to refer to a specific type of pottery with elaborated decoration, a cultural complex and, by extension, a migratory movement and period (Noury and Galipaud 2011).

<sup>6.</sup> The prefix \*paN- marks the intransitive form of the verb; -N- combines with the root-initial consonant to produce a nasal consonant (Ross et al. 2016:224).

- languages: Mapos Buang (North New Guinea), Sursurunga (Meso-Melanesian), Arosi (Southeast Solomon), and Wayan (Fijian)
- 3. 'eat (sth.) as an addition to starch': Sursurunga (Meso-Melanesian), Anejom and Sye (South Vanuatu), Kosrean (Nuclear Micronesian), Wayan (Fijian) and Polynesian languages
- 4. 'eat fish or meat without starch', "possibly already lexicalised in POC, as \*[q,k]oda(q). More usually the reflexes mean 'eat s.th. raw'" (Ross et al. 2016:231)
- 5. 'eat greens alone': Ramoaaina (Meso-Melanesian) and Arosi (Southeast Solomon)

Since Ross et al. (2016:229) only give three New Caledonian reflexes for all the 'eat' terms in their study (Voh-Koné dialects *cani* 'eat starchy food', Xârâcùù *kê* 'eat starchy food' and Iaai *han* 'eat'), our article will investigate if a larger set of Kanak languages offer similar data. Indeed, most New Caledonian languages have a specific verb for each of these five categories, but — as we will show — quite a lot of variation is identified, we will try to sort out if the lexical distinctions are either inherited from POc or specific to New Caledonian languages, and if they are due to local innovations or language contact.

**2.3.** THE NEW CALEDONIAN/KANAK LANGUAGES. New Caledonia is a home to twenty-eight Kanak languages plus dialects, <sup>7</sup> greatly differing from one another and each showing high phonological complexity. All the Kanak languages belong to the New Caledonia linguistic subgroup (Haudricourt 1971; Ozanne-Rivierre 1992), except West Uvean (Fagauvea), which is a Polynesian outlier (see Moyse-Faurie et al. 2012 for a general presentation). The New Caledonia subgroup divides into three lower subgroups: North Mainland, South Mainland and Loyalty Islands. The linguistic diversity in New Caledonia is mainly due to sociolinguistic factors: before the arrival of the Europeans, there was no dominant Kanak language. Contact between small neighboring communities, practicing "egalitarian multilingualism" (the *plurilinguisme égalitaire* described by Haudricourt 1961:8–9) accentuated the diachronic enriching tendencies.

In addition to the indigenous Kanak languages, New Caledonia is home to one small-scale creole, Tayo (Ehrhart 2012), French as the dominant and vehicular language, and dozens of other Indo-European, Austro-Asiatic, Japonic, and Austronesian languages brought in by migrations during the last century.

Our study is mainly based on Kanak languages for which we found sufficient reliable data for our topic. It relies on authentic data collected through our

According to the Académie des Langues Kanak (see https://www.alk.nc/aires-coutumieres), see Map 1 for further details.

TABLE 1. KANAK LANGUAGES AND DATA SOURCES USED IN THIS STUDY.

Subgroup	Language <sup>†</sup>	Source
New Caledonia > Mainland > North	Nyelâyu	Ozanne-Rivierre 1998
	Nêlêmwa	Bril 2000
	Caac	Hollyman (unpublished), Cauchard 2018
	Hienghène languages, Jawe, Nemi, Fwâi, Pije	Haudricourt and Ozanne-Rivierre 1982
	Pwapwâ, Pwaamei	Ozanne-Rivierre 2007
	Voh-Koné languages: Bwatoo Vamale	Rivierre and Ehrhart 2006 J. Rohleder (p.c.)
	Cèmuhî	Rivierre 1994
	Paicî	Rivierre 1983
New Caledonia > Mainland > South	Ajië	Lercari, 2002, P. Poedi (p.c.)
	Haméa	Moyse-Faurie (own data)
	Xârâcùù Tîrî	Moyse-Faurie and Néchérö-Jorédié 1989 Osumi 1995
	Drubéa	Shintani and Païta 1990
	Numèè	Rivierre (unpublished)
New Caledonia > Loyalty Islands	Iaai	Ozanne-Rivierre 1984; Dotte 2013
	Drehu	Sam 2009
	Nengone	S. Bearune (p.c.)
Polynesian outlier	Fagauvea	Hollyman 1987

<sup>&</sup>lt;sup>†</sup>Languages in this table and following tables are arranged North to South.

own fieldwork, complemented by vocabulary found in the available dictionaries, descriptive grammars and colleagues' first-hand data (see table 1 for references and sources for each language).

Table 2 recaps the reflexes of the POC generic term for 'eating', sometimes also used for the action of eating starchy food. Usually, it is the term for 'eating starchy food' (Mainland Kanak languages) or the general term for 'eating' and for 'eating starchy food' (Loyalty Islands languages) which reflects POC \*kani 'to eat' (Pawley, in Greenhill et al. 2008).

Some of the Mainland languages, however, have a nonrelated term for 'eating (in general)', such as Jawe and Caac *huu*; Vamale *xhwi-aman*; Ajië *ara*; Xârâcùù *da*; Haméa *harra*; Drubéa *kèrè-re*, etc.

- **3. SEMANTIC DIFFERENTIATION OF VERBS OF EATING IN KANAK LANGUAGES.** The POc differentiation of verbs of eating, depending on the type of food ingested, is widely attested in the Kanak languages subgroup.
- **3.1. CANONICAL DISTINCTIONS.** The lexical field of expressions for ingesting food does not relate to a homogeneous or consistent domain in Kanak languages. Two main groups are distinguished and manifest an areal distribution: the languages of Mainland New Caledonia usually differentiate several categories of food with several terms for the verb 'eat'—one general

CUSTOMARY AREAS AND LANGUAGES OF NEW CALEDONIA

Nyeläyu

NORTH

POUR AREAS AND LANGUAGES OF NEW CALEDONIA

North Sound Province border

North-South Inguistic forder

Language boundary

drehu

Language dalects

(Sichéé)

Estinct language

South

North-South Inguistic forder

Language dalects

(Sichéé)

Language dalects

(Sichééé)

Languag

MAP 1. THE KANAK LANGUAGES OF NEW CALEDONIA (LACITO 2014).

TABLE 2. REFLEXES OF THE POC GENERIC TERM FOR 'EATING'.

PMP		*kaen	'eat'
POC		*kani[-]	'eat (s.t. starchy), eat (in general)'
Proto-New Caledonia		*kani	
Mainland (North)	Hienghène languages, Pwapwâ, Bwatoo	cani	'eat starchy food'
	Pwaamei	zani	'eat starchy food'
Mainland (South)	Xârâcùù	kê	'eat starchy food'
Loyalty Islands	Iaai	han	'eat (intransitive)'
		an	'eat (transitive)'
	Drehu	xen	'eat, eat starchy food'
	Nengone	kaka(n)	'eat (generic; less protein)'
Proto-Polynesian		*kai <sup>†</sup>	'eat, food'
Loyalty Islands	Fagauvea	kai	'eat (intransitive)'
		kaina	'eat (transitive)'

<sup>†</sup> It is interesting to notice that *kaikai* [kajkaj] is a very common word in the local Caledonian French, meaning 'to eat; food' (Pauleau 1995:93). It comes from a reduplicated form of the Polynesian term. Bislama (the national pidgin language of Vanuatu) has a very similar form for 'food': *kakae*.

term plus up to six other terms depending on the type of food ingested. The languages of the Loyalty Islands, by contrast, do not distinguish 'eating starchy food' nor 'eating fruits' and use the general verb in these cases.

For the Mainland subgroup, the most common pattern is based on four verbs, as illustrated here by Xârâcùù as in example (2): one generic term for

'eating', and additional specific verbs, depending on what is eaten: (i) starchy food (including 'bread'); (ii) protein, flesh (including coconut flesh) and food coming from animals (meat, fish, egg, etc.); (iii) sugarcane and fruits that have to be chewed, or sucked, without being swallowed.

(2) XÂRÂCÙÙ (Mainland)

da 'eat' (general term, also used for some fruits and leafy vegetable)  $k\hat{e}$  'eat starch food' (yam, taro, sweet potatoes, rice, banana, manioc...)  $xw\hat{e}$  'eat meat, fish, coconut or other fruit flesh'

xwii 'eat sugarcane, orange and all other fruits that are only sucked'

For the Loyalty Islands languages, the common distinction is three-way: the generic 'eat' verb plus two specific verbs for, either, the ingestion of proteins; food that has to be chewed (barks or chewing-gum<sup>8</sup>) or food that has to be gnawed (sugarcane). This is exemplified by the three Loyalty Islands languages Iaai, Drehu and Nengone in the following examples:

(3) IAAI (Ouvéa island)

an 'eat (generic, TR)'

hwii 'eat (or gnaw) sugarcane'

hicâ 'eat chewable food (barks, chewing-gum...)'9

(4) DREHU (Lifou island)

xen 'eat (generic; anything other than protein)' öni 'eat protein (meat, fish, egg...)' atra 'eat (or gnaw) sugarcane'

(5) NENGONE (Maré island)

kaka(n) 'eat (generic; anything other than protein)'ia 'eat protein (meat, fish, egg, seafood...)'chaphan 'eat chewable barks (magnania, chewing-gum...)'

In some Kanak languages, there are additional specific verbs for the ingestion of food types other than these canonical categories, as we will see in the following section.

**3.2. SEMANTIC DISTINCTIONS.** In addition to the generic term, as many as six specific 'eating' verbs are distinguished in Kanak languages, based on the food ingested. The largest set is composed of six different lexemes (as in the Hienghène languages: Jawe; Nemi; Fwâi; Pije; Pwapwâ; and Pwaamei), whereas the minimal set is made up of three verbs (Loyalty Islands subgroup languages). Most common categories are sugarcane, starch, and protein. However, in some languages starch and protein are combined into a single category. Table 13 in the appendix recaps all the documented forms for each of the twenty-two Kanak languages of the sample.

<sup>8.</sup> Several kinds of barks or roots were traditionally consume by Kanak people, but are very rarely today: the root of magnania (*Pueraria thunbergiana* Benth., variant of *Pueraria lobata*, a fibrous root) and the bark of bourao (*Hibiscus tiliaceus*) are the most commonly known. It seems that they were earlier staples consumed as famine foods (Ross et al. 2008:256) or, on the contrary, as a "chief food" (Haudricourt 1964:97).

<sup>9.</sup> hoc is also a synonym verb in Iaai for eating chewable food (Ozanne-Rivierre 1984:53).

Mainland languages Loyalty Islands languages Nyelâyu; Caac; Jawe huu Iaai an Nêlêmwa Drehu khuwo xen Nemi; Fwâi; Pije hwi-aman Nengone kaka(n) Pwapwâ; Pwaamei; Vamale xhwi-aman **Bwatoo** vwhaxi-aman Cèmuhî wii-naado Paicî íjá Ajië ara Xârâcùù da Tîrî, Haméa harra Drubéa kèrè-re Numèè kii-rè

TABLE 3. 'EAT (GENERIC)' IN KANAK LANGUAGES.

**3.2.1. Generic verb.** In all of the languages we studied, a generic verb is attested (see table 3). It can be employed to express the ingestion of any kind of food, when no specification of the latter is given. The generic 'eating' verb works as a large semantically neutral category in cases where the foodstuff does not belong to any specific food category distinguished in the language. It has a complement function rather than a default one: the generic 'eating' verb cannot work as a substitute for any specific 'eating' verb. <sup>10</sup> For example, in Nengone (Bearune, p.c.), young children who would say \**inu ci kaka guia* 'I am eating meat' (with the general 'eating' verb, *kaka*) would be corrected by older speakers because of the inadequate verb choice: *inu ci ia guia* 'I am eating meat' (with the specific verb for protein, *ia*).

As we already mentioned in table 2, it is in the Loyalty Islands languages that POC \*kani 'eating sth. (general); eating starchy food (TR)' has been better conserved. Cognates are recognizable in Drehu *xen* with the same meaning and in Iaai *an* exclusively for the transitive form for the generic. In other languages, the origin of the forms remains quite obscure.

**3.2.2. Sugarcane.** Concerning the specific verbs, the most commonly differentiated food category is sugarcane (in nineteen of the sample languages), with a relatively consistent lexical form, ranging from *khuri* (Nêlêmwa) to *xhuli* (Pwapwâ) or *hwii* (Tîrî and Iaai). Ross et al. (2016:234) list several terms reconstructed in POc for chewing without swallowing. One of them, POc \*qusi-'suck and chew (sugarcane)' might be the etymon of several of the New Caledonian terms shown in table 4.

Caac *huuxuc* seems to be a lexicalization of the generic verb *huu* 'eat' plus incorporated object *kuc* 'sugarcane' to derive a specific verb form dedicated to this category of food.

Ross et al. (2008:390) consider sugarcane (Saccharum officinarum) as one of the continuously cultivated plants for human consumption in Oceania and

<sup>10.</sup> This distinction is well explained in relation to general classifier in Zubin and Shimojo (1993).

TABLE 4. 'EAT (SUGARCANE)' IN KANAK LANGUAGES.

Mainland		Loyalty	Islands
Nyelâyu	huur	Iaai	hwii
Nêlêmwa	khuri	Drehu	atra
Caac	huuxuc		
Jawe; Nemi; Fwâi	huli		
Pije	holi		
Pwapwâ	xhuli		
Pwaamei	huti		
Bwatoo; Vamale	xhuti		
Paicî	wíi		
Ajië	kwârâ		
Tîrî; Haméa	hwii		
Drubéa	kùu-re		
Numèè	kuu-rè		

note that "the jointed, fibrous stalks contain sucrose, obtained by cutting off a stem and chopping it into convenient lengths which are sucked and chewed as a refreshing snack. When the sugar has been sucked out, the rubbish is spat out." Semantically, the verb used for 'eating sugarcane' more specifically describes an action of food extraction rather than a manner of food ingestion as a whole, chewing being the only way of ingesting sugarcane.

In Xârâcùù, the cognate term *xwii* is the specific verb for a larger category combining both sugarcane and chewable food. Only Cèmuhî (North Mainland) and Nengone (Loyalty Islands) completely lack this lexico-semantic categorization.

**3.2.3. Proteins.** Protein sources coming from animals were not present in every simple meal (Kinaston et al. 2016), but were highly valued. A specific verb for eating proteins, consisting of animal flesh (meat, fish, or seafood), coconut flesh or hard food is attested in seventeen languages of our sample, as for example *hwii* in Jawe; Nemi; Fwâi or also Pije. The origin of these forms remains uncertain, though some languages spoken in the North of the Mainland do have related forms, as shown in table 5.

Two languages spoken in the extreme southern Mainland do not include fish in the protein category: Numèè (kwè-re) has fish associated to the generic verb, and Drubéa shows a similar kwè-re form for a larger semantic category including protein and some fruits and greens (see below), but not fish: kwè-re wââgòo 'eat fruits' (Shintani and Païta 1990:118). Nyelâyu (North Mainland) does not distinguish protein as a special category, but shares the use of huc for starch and protein. It is the only language in our sample that treats starch and protein as a single category. By contrast, Iaai, Vamale, and Nêlêmwa do not have a specific verb for the protein category, but instead use the generic verb form.

<sup>11.</sup> In addition, huc also means 'bite (for a dog)' (Ozanne-Rivierre 1998:102).

TABLE 5. 'EAT (PROTEINS)' IN KANAK LANGUAGES.

	Loyalty Isla	nds
wii	Drehu	öni <sup>†</sup>
hwii	Nengone	ia
xhwii		
wíi		
útí		
öi		
xwè		
ho		
kwè-re		
	hwii xhwii wíi útí öi xwè ho	hwii Nengone xhwii wii útí öi xwè ho

<sup>†</sup> In his dictionary, Sam (2009:114–115) notes that *öni* was also allowed to express cases of anthropophagy with an incorporated object *öni atr* 'eat (protein) human', similarly to other combinations as *öni ixoe* 'eat (protein) crab'; *öni i* 'eat (protein) fish'; *öni mitr* 'eat (protein) meat' (*mitr* < English meat); etc.

**3.2.4. Starchy food.** Fifteen languages in our sample have a specific verb dedicated to 'eating starchy food' (yam; manioc; taro; sweet potatoes; banana; rice, etc.). As we stated previously in table 2, the specific verb for 'eating starchy food' is a reflex of POC \*kani 'eat (generic)' in some of the North Mainland Kanak languages: *cani* in Jawe; Nemi; Fwâi; Pije; and Pwapwâ, and *zani* in Pwaamei.

Extreme southern Mainland languages and Loyalty Islands languages do not distinguish 'eating starchy food' as a lexico-semantic category. In Drubéa and Numèè, the generic 'eat' verb (respectively, *kèrè-re* and *kii-rè*) is used for both 'eating starchy food' and 'eating fish'. Also Drehu (Lifou, Loyalty Islands) uses its generic term *xen* for 'eating starchy food'. As previously mentioned, Nyelâyu shows a common undifferentiated semantic category for eating starchy food and proteins with *huc* (table 6).

Ross et al. (2008:255) specify that "A Proto Oceanic POc meal was typically made up of two categories of ingredient: \*kanaŋ 'staple food, starchy food' and \*tamaji 'additional ingredients to accompany starchy food'. The main ingredients of \*tamaji were—or rather are in today's Oceanic societies—green vegetables, [...] and coconut cream[...]." Thus, it is quite reasonable to consider that in many Kanak languages the POc generic 'eat' verb is the etymon for the verb meaning 'eat starchy food'. Furthermore, according to Ross et al. "there is

TABLE 6. 'EAT (STARCHY FOOD)' IN KANAK LANGUAGES.

Mainland	
Nêlêmwa	khuxi
Caac; Jawe; Nemi; Fwâi; Pije; Pwapwâ	cani
Pwaamei	zani
Bwatoo; Vamale	xhajake
Cèmuhî	éni
Ajië	kâi
Xârâcùù	kê
Haméa, Tîrî	é

TABLE 7. 'EAT (CHEWABLE FOOD)' IN KANAK LANGUAGES.

Mainland		Loyalty Isl	ands
Caac	maani	Iaai	hicâ
Jawe	hwei	Nengone	chaphan
Nemi; Fwâi; Pije	hwai		
Pwapwâ	xhwei		
Pwaamei	xhwai		
Vamale	fwai		
Cèmuhî	pwèi		
Paicî	pwé		
Ajië	kwârâ		

almost never a separate verb meaning 'eat starchy food' in Oceanic languages'. Thus, Kanak languages are particularly outstanding in this respect.

**3.2.5.** Chewable food. Thirteen languages in our sample have a specific verb for chewable foods, such as roots and barks (footnote 8), given in table 7. Ten of them are spoken in North Mainland, where there are quite stable forms: hwei~hwai (Jawe~Nemi; Fwâi and Pije); xhwei~xhwai (Pwapwâ~Pwaamei); fwai (Vamale); pwèi (Cèmuhî) or also pwé (Paicî); but maani in Caac. These verbs semantically express the action of 'chewing' the fibers of roots or barks, but not necessarily ingesting it.

In Xârâcùù, the verb *xwii* used for 'eating sugarcane' is also used for chewable food. Thus, *xwii* is used for a category of food stuff that are masticated, but not fully ingested (see appendix). Since it does not differentiate a specific restrictive 'chewable' category, it does not appear in table 7.

There is no evidence that Kanak forms are directly inherited from POc for which 'chew (betelnut, sugarcane), bite into' has been reconstructed as \*ŋasu (INTR) or \*ŋasi (TR) (Ross et al. 2016: 233).

**3.2.6. Greens.** A specific verb is found in twelve languages, all from North Mainland and none of the Loyalty Islands languages, to express the action of eating cooked leaves, greens or some fruits, without anything else, as shown in table 8.

TABLE 8. 'EAT (GREENS)' IN KANAK LANGUAGES.

Mainland	
Nyelâyu	ûûr
Nêlêmwa	kûûra/kûûri
Caac; Jawe	kuuni
Nemi; Fwâi; Pije	kaje
Pwapwâ; Pwaamei	kûûni
Bwatoo	kûû
Vamale	xaje
Cèmuhî	anve

According to Ross (2008:40), "Ramoaaina (Meso-Melanesian) *odo* and Arosi (Southeast Solomonic) *nau-kokona* (lit. chew-smooth) are the only instances found in a survey of Oceanic dictionary sources" having this specific meaning 'eat greens alone'. In East Futunan, however, we also found the specific verb *otai* 'eat certain fruit (grated guava mixed with grated coconut)' (Moyse-Faurie 1993:307).

One of the favorite green leaves to be cultivated and eaten (still today) is *Abelmoschus manihot* (Ross et al. 2008: 294), known in Caledonian French as *chou kanak* or 'island cabbage' in English. This plant is frequent and appreciated for being very nutritious and highly rich in protein. Interestingly, we note that in Drubéa (Shintani and Païta 1990:118), the action of eating greens can be expressed by *kwè-re*, the verb associated with proteins (except, fish which belongs to the generic), allowing a larger semantic category.

The origin of these forms found in Kanak languages is uncertain at the current stage of the study and reconstruction available for Proto-New Caledonian. There is no evidence that they are reflexes of POc \*tamaji 'additional ingredients to accompany starchy food (coconut milk; leafy vegetables and protein food (meat, fish, shellfish)'.

**3.2.7. Raw food.** Three languages (two spoken in the extreme north, one in the extreme south) have a specific verb for 'eat raw food or green/unripe fruits': *thaxilo* (Nyelâyu); *thaxilolî* (Nêlêmwa) and *kwè-béríi-re* (*béríi* 'premature [for food]') (Drubéa) (table 9).

There is no evidence that these forms are reflexes of reconstructed POc \*[k,q]oda(q) 'eat raw (meat, fish, shellfish)', whereas reflexes are found in Polynesian languages (Ross et al. 1998:156–57), as we will see in section 4.2.

It is also worth mentioning at this point that the semantic differentiation found in Kanak languages shows many similarities with Aslian languages, <sup>12</sup> in the domain of ingestion as well as in the fact of having "very detailed meanings encoded in single words, especially verbs, and in domains presumed to be fundamental to human experience" (Burenhult and Kruspe 2016:3).

**3.2.8. Summary.** This comprehensive look at the lexical resources for expressing eating events shows that:

- Kanak languages have up to six verbs of eating, one of which has a "generic" meaning, used either when the thing eaten is not specified or when the language does not have a special verb for the given type of food.
- 2. Other verbs of eating are classified according to the category of food: sugarcane, chewable, starch, protein, greens, and raw food.
- 3. While Kanak languages are unique in the large number of verbs of eating (above all, in some of North Mainland languages), no verbs of the

<sup>12.</sup> Aslian languages (about eighteen) are spoken in the mountain ranges of the Malay peninsula, and belong to the Austroasiatic language family.

## TABLE 9. 'EAT (RAW FOOD, GREEN FRUITS PROTEINS)' IN KANAK LANGUAGES.

Mainland	
Nyelâyu	thaxilo
Nêlêmwa	thaxilolî
Druhéa	kwè-hérii-re

specific category (e.g., 'eat starchy food') are unique to Kanak languages. Rather they all exist in other Oceanic languages and some can be traced back to POC (e.g., 'eating greens' attested in two languages from the POC Lexicon). However, many languages distinguish only one or two of these categories.

4. Therefore, what is unique about Kanak languages is not the categories they distinguish, but the number of categories for which special verb forms exist.<sup>13</sup>

However, it is still quite difficult to determine with certitude the reason that could explain this accumulation of lexico-semantic distinctions in some Kanak languages, but it seems still possible to formulate some cultural and environmental hypotheses:

- The absence of mammals and the extinction of some big birds (Anderson et al. 2010) led to increased consumption of vegetal protein sources, which generated a lexical diversification for this specific kind.
- There is a huge biodiversity spread among large and diverse exploitable territories between the east and the west coasts of Mainland New Caledonia (Dotte 2010).
- Kanak culture is very keen to both preserve its diversity (as with the maintenance of an "egalitarian multilingualism") and to promote its micro-local idiosyncrasies (Moyse-Faurie and Rivierre 1992).
- Kanak culture is based on exchange between the different groups, favoring contacts, exchange of resources and inter-clan marriages (Sand et al. 2017).

#### 4. EXTENDING THE COMPARISON.

**4.1. FREQUENT CROSS-LINGUISTIC OBSERVATIONS.** It is important to note that we freely make use in this paper of the translation 'eat' as a general and global cover term for actions and events that are, after all, quite different from the perspective of the speakers of Kanak languages. Actually, only the form labeled 'generic eat' could accurately correspond to the English translation *to eat/eating* (or to French *manger*). All the other specific verbs should receive a much more specific and accurate translation. It is in this perspective that we should

<sup>13.</sup> It is worth saying that a parallel conclusion can be made about possessive classifiers dedicated to foodstuff in Kanak languages, as will be exemplified in section 5.

keep in mind the statement of Wierzbicka (2009:88) asserting that "the conceptual categories 'eat' and 'drink' do not cut nature at its joints. The conceptualization of such activities depends, to some extent, on what is culturally salient in a particular society."

Given the basic and essential function of ingesting (solid) food, it is to be expected that the vast majority of languages of the world should have a basic verb denoting that activity. What is surprising, however, is that in many languages, these single basic verbs (e.g., English *eat* and French *manger*) correspond to several different verbs, whose selection depends on various factors (Næss 2011; Gast et al. 2014).

First, the verb is selected depending on the semantic type denoted by the **subject** (Who eats?), as in German *essen* versus *fressen* (humans versus animals) or English *feed on sth*. (intr.) only used of animals. While European languages have specific 'eat' verbs depending on the type of animals, such as French: *brouter* 'feed on grass (for cows)' and *picorer* 'peck (for birds)', Oceanic languages do not make any such distinction and use the basic 'eat' verb for all animals alike.

Second, the semantic type of the **object** (What kind of food is eaten?) can be the decisive factor. As we have seen above, Oceanic languages make use of this criterion. This distinction can focus on different characteristics: the form of the food stuff (round; long etc.), its nutritive properties (proteins; vegetables etc.), its consistency (and the related way it can be grabbed, moved from hand to mouth) or nature (fibrous stalk; raw food; mushy matter etc.).<sup>14</sup>

The third option is to select the verb depending on the **manner** of eating (How does one eat?), as in English. *to wolf down, devour* or German *schlingen* 'to wolf', *fressen* 'to stuff sth. down' versus *speisen* 'to eat'.

Fourth, it can also depend on the **time** of eating (When does one eat?), as found in French *petit-déjeuner* 'breakfast', *déjeuner* 'lunch', *goûter* 'eat at afternoon tea', *dîner* 'dine', and *souper* 'to have supper'.

Fifth, the **place** where one eats can be taken into account, such as in English *eat out*; French *pique-niquer* 'eat outdoors'.

Finally, the choice between ingestion verbs can be determined by a causative perspective: French *nourrir* 'to feed s.o.', *allaiter* 'to breast-feed', German *füttern* 'to feed animals, children, old or sick people', East Futunan *mama'ia* 'to feed a child in the process of weaning by pre-chewing the food', and East Uvean *pusiaki* 'to feed with the hand (child, pig)'.

#### 4.2. MAJOR DISTINCTIONS FOUND IN OCEANIC LANGUAGES.

After having identified the contextual parameters that may be expressed by the relevant verbs in various Kanak languages, we will now try to achieve a more illuminating characterization by comparing the relevant lexical subsystems to those found in other Oceanic languages.

As we have seen in section 3, as many as six different specific categories of eating are distinguished in Kanak languages, in addition to the generic term.

<sup>14.</sup> See Rice (2009) who gives insightful examples of this type in Athapaskan languages.

This is indeed remarkable, and not attested in other Oceanic subgroups. Kanak languages, and Kanak people, thus categorize their surrounding world with their own distinctions, which do not always match the Western-European ones. As already mentioned, two ways of organizing these 'ingestion' verbs exist in Kanak languages: the situation in the Loyalty Islands languages is less complex, and more similar to what is reconstructed for POC; while the most complex pattern is found in some northern languages of the Mainland, as Pije illustrates here with a range of six verbs:

#### (6) PIJE (North Mainland)

hwi-aman 'eat (general term)'

hwii 'eat protein, flesh, hard food...'
holi 'eat sugarcane, some fruits'

cani 'eat starchy food'

kaje 'eat greens, leaves, fruits'hwai 'eat chewable barks, magnania'

This peculiarity of highly detailed semantic granularity appears to be a microareal tendency in the northern region of mainland New Caledonia, in the 'eating' domain as much as in the 'drinking' domain, since it is also in these languages that we find distinct verbs for 'drinking' (i.e., 'liquid or juicy food ingestion') depending on the temperature of the drinkable liquid, as shown in table 10.

All Oceanic languages draw a lexical distinction between eating and drinking activities, thus differing from Papuan languages, such as Kalam, which has only one verb for 'eat' and 'drink',  $\tilde{n}b$ - (Pawley and Bulmer 2011:437). According to Pawley (p.c.), Fijian has a clear dichotomy between foods that you 'eat' (kana in Bauan, kani in Wayan) and foods that you 'drink' (gunu in Bauan, som in Wayan), the latter including various kinds of wet/juicy foods, such as molluses, sugarcane, juicy fruits, lollies, jelly or soup. We found an exception to this generalization in the honorific East Uvean language (used when you speak to/of the king) with only one verb, taumafa, meaning both 'drink' and 'eat', in contrast to the two different terms in the ordinary language, inu 'drink' and kai 'eat'. In East Futunan, in which there is no honorific versus ordinary language distinction, taumafa also exists, meaning 'eat with appetite, gladly drink', also showing no distinction between 'drink' and 'eat'.

TABLE 10. 'DRINKING SOMETHING COLD' AND 'DRINKING SOMETHING WARM' IN NORTH MAINLAND KANAK LANGUAGES.

Subgroup	Language	'to drink sth cold'	'to drink sth warm'
New Caledonia > Mainland > North	Jawe	knuduk	phelo
	Nemi	knuduk	thop, felo
	Fwâi	khûdûk	vhelo
	Pije	khûdûk	vhalo
	Pwapwâ	kûduk	thovi
	Pwaamei	kûduk	thop
	Bwatoo	xudu	traao
	Vamale	undu	fato

A comparative perspective highlights the fact that in Polynesian languages verbs for 'eating' make other kinds of semantic distinctions ('raw' versus 'cooked food'; 'eating both starch food and meat/fish', 'eat only one thing at a meal'...). These distinctions are rarely attested in Kanak languages (Nyelâyu *magilo* 'eat without side dish', Ozanne-Rivierre 1998:120).

Specific terms such as 'eat fish, seafood, meat without anything else' are indeed not frequently found in Kanak languages, whereas they are frequent in Polynesian languages, and are also found in Anejom (South Vanuatu), and in Toqabaqita (Malaita, Solomon islands). More frequent is a specific term for 'eat both starch food and fish/meat', as it is also the case in Polynesian languages. Caac (Mainland, New Caledonia) shows a specific verb *po cain* for 'eating a mixture of foods' ("manger ensemble différentes sortes de nourriture, p. ex., pain et viande", 15 Hollyman 1999:128).

In Polynesian languages, the general term for 'eat' *kai* (East Futunan, East Uvean, Tongan, etc.), is also used for any kind of food, but there are specific verbs for food combinations. First, some verbs denote 'drink while eating' or 'dunk food into water before eating it': East Uvean *omaki* (< Proto-Polynesian [PPN] \*qomaki 'eat and drink at the same time'), and Tuvaluan *ppeke* (Besnier 2000:642); food eaten with kava: East Uvean *fono* (< PPN \*fono); East Futunan *mafana* 'drink the juice of the dish *su* before eating it'.

Second, some Oceanic languages have verbs expressing the combination of both starch food and protein food, as in the following reflexes of PPN \*kina 'food eaten with another food as relish: (kai)kina (East Uvean, West Uvean, East Futunan); Māori: kīnaki 'meat or fish provided to eat with vegetable food, relish' (Williams 1971:118); East Uvean kīkī, Tuvaluan kiki (Besnier 2000). This combination is rare in Kanak languages (Cèmuhî wii, Haméa hâwétè).

Third, verbs meaning to eat something raw (fish, meat, shells) are attested in the Polynesian languages, as shown by East Futunan, East Uvean 'ota, and Tuvaluan ota < PPN \*'ota < POC \*[q,k]oda(q). In East Futunan, the reduplicated form 'ota 'ota means 'eat human flesh', along with *fono'i*.

Finally, some languages have a verb meaning 'eat only one thing at a meal (starch food or bread without any meat or fish)', or vice versa 'eat leftovers (non-protein food)', such as East Uvean *hamu/hamuko*, East Futunan *samukō*, and Tuvaluan *samusamu* (Besnier 2000) from PPN \*samu 'eat one thing only' (Greenhill and Clark 2011).

This comparative perspective highlights the fact that in Polynesian languages verbs for 'eating' are based on other kinds of semantic distinctions ('raw' versus 'cooked food', 'eating both starch food and meat/fish', 'eat only one thing at a meal', etc.) whereas, as we have seen, these distinctions are rarely attested in Kanak languages.

Verbs expressing different manners of eating or quantity of food ingested are attested in Kanak languages, although not as frequently recorded as in other Oceanic languages such as the following Toqabaqita and East Uvean examples:

<sup>15. &#</sup>x27;eat different sorts of food together, e.g., bread and meat'.

```
(7) TOQABAQITA (Malaita, Solomon Islands)
                                                       (Lichtenberk 2008a)
    dakufia
                             'eat hastily without chewing the food properly;
                            gobble food; drink thirstily
                       INTR 'eat food, stuffing one's mouth full'
    dudumeme
                      INTR 'eat food, stuffing one's mouth full'
    fangabusubusu
    fangaliufaqadoqa INTR 'eat greedily; be a glutton (= fokobusubusu)'
    luulua
                            'eat too much, overeat'
                      INTR
    luatania
                             'eat too much, overeat'
                      TR
                      INTR 'shove food down one's throat: a rude way
    onoono
                            of referring to eating'
                             'eat every little bit of meat on a bone;
    simia
                       TR
                            pick on a bone'
```

(8) EAST UVEAN (Wallis and Futuna) (Bataillon 1932) faʻapuku/haʻapuku 'to stuff o.s.' momi 'swallow without chewing (ripe bananas), or when one has no teeth pakalamu

'eat with noise (like animals)'

ʻunani 'enjoy eating'

Some languages have several terms expressing 'feel like eating specific kind of food', such as East Uvean and Tongan 'umisi 'crave for fish/seafood'. East Futunan  $g\bar{a}$  and Fijian kusima 'crave for fish or meat' are noncognate terms with a similar meaning. This type of specification is marginally attested in Kanak languages, having been recently found in Haméa (South Mainland) with treu 'crave for meat'.

4.3. REGISTER DIFFERENTIATION. Register differentiation is not very frequent in Kanak languages, compared to other Oceanic languages. A few verbs, however, are attested for 'eating (general term)' in formal discourse, as addressing a chief or speaking of a chief: Nengone kodraru; Jawe, Fwâi, Pije, Vamale waadap; Nemi mooxon; Pwaamei and Pwapwâ mawââdap, but this last verb is noted as archaic.

In Toqabaqita, by contrast, Lichtenberk (2008a) lists several general 'eat' verbs, either transitive (TR) or intransitive (INTR), showing various degrees of politeness:

```
(9) TOQABAQITA (Malaita, Solomon Islands)
                                                         (Lichtenberk 2008a)
                      'eat (the common, ordinary word)'
    qania
                TR
                INTR 'eat; N food'
    fanga
                INTR 'eat'
    faqasobo
    faqangado
                      'eat (respect.)'
               INTR
                      'eat (respect.) (= reereqe)'
    reqea
                TR
    masia
                      'eat (vulg.)'
                TR
                      'eat (casual, jovial)'
    nangasia
                TR
                      'eat (impolite to use to adults)'
    onomia
                TR
    logomia
                      'eat (vulg; used in anger)'
                TR
    feqetania
                      'eat (vulg.); defecate out; (var. feqatania)'
```

Toqabaqita also has verbs expressing inappropriate social behavior: fangaburi (INTR) 'without other people's permission or knowledge, help oneself to food

left in the house after everybody else has gone', damua (TR) 'chew, eat; properly used only about animals'.

It is interesting to note that the Polynesian terms for good and bad behavior are based on PPN \*kai 'eat', as, for example, in East Futunan along with the PPN terms found in Pollex-Online (Greenhill and Clark 2011): *kai 'isi* 'ask s.o. for sth. to eat' (PPN \*kai-siqi 'beg, cadge'), *kaimalie* and *kai solisoli* (PPN \*kai-mālie) 'be generous', *kaimeo* 'reproach s.o.', *kainao* 'adulterous', *kaipō* and *kaiveli* 'stingy', *kai'ā* (PPN \*kai-haqa) 'steal'.

Such specific terms are seldom listed in Kanak languages, though they are certainly attested, as it is the case in Haméa (South of the Mainland) with *pâmîrî* 'nibble'.

**4.4. COLEXIFICATION.** Even if it does not reflect the POc etymon, it is significant to note that *da* 'eat (generic)' in Xârâcùù is polysemous and means also 'to cut; sharp' (Levinson 2007). This colexification (semantic association, cf. François 2008) is shared with POc:

whereby terms for 'sharp' (referring to a blade, not a point) are derived from the verb 'eat' or 'chew'. Reflexes of \*paŋan, often reduplicated, mean 'sharp' in a number of Meso-Melanesian and Southeast Solomonic languages, while reflexes of \*kani mean 'sharp' in a number of Northwest Solomonic, Micronesian and Polynesian languages. Although this semantic extension of 'eat' seems rather an obvious one, it is not among those listed as occurring cross-linguistically by Newman (2009) (Ross et al. 2016:226).

By metonymy, the partial aspect of eating allows the use of *bite* or *cut* for eat (bite > chew > swallow). In some languages indeed, the meaning of the verb is closer to the English verb *bite* and French *mordre*, as in Nyelâyu (see footnote 11), or in the example from Ajië given in (10) below. This case of colexification is also worthy of note.

```
(10) Алё
Na da öi ru xiyé na bwârâwê?
3sg Neg bite 3du why мs dog
'Why does the dog not bite them?'
```

#### 5. FOOD POSSESSIVE CLASSIFIERS.

**5.1. SEMANTIC DISTINCTIONS.** Oceanic languages are well known for manifesting a wide range of possessive classifiers (Lichtenberk 2009) involved in indirect possessive constructions. <sup>16</sup> Consumable items represent a crucial

<sup>16.</sup> In Oceanic languages, it is very common to differentiate between nouns depending on how they combine with possessive suffixes: if the possessive morpheme is directly suffixed to the noun, this indicates direct possession for a dependent noun, as in Iaai benyin 'his/her hand', benyâm 'your hand'. Indirect possession, by contrast, is expressed by constructions for independent nouns, in which the possessive suffix is affixed to a classifier (itself a dependent noun that provides complementary information about the relation between the possessee and the possessor): haaleem kuli 'your dog (pet)', haaleeny pusi 'his/her cat (pet)'.

TABLE 11. FOOD CATEGORIES DISTINGUISHED BY POSSESSIVE CLASSIFIERS IN KANAK LANGUAGES.<sup>†</sup>

	Food (generic)	Sugarcane; juicy food	Protein	Starchy food	Chewable	Greens, leaves, fruits	Unripe fruits	Fish/ shellfish
Nyelâyu		×	×	×	×	×		
Nêlêmwa		×	×	×	×	X	X	
Caac			×	X	×			
Jawe; Nemi;		×	×	×	×	×		×
Fwâi; Pije Pwaamei; Pwapwâ		×	×	×	×	×		
Bwatoo		×	×	X	×	X		
Cèmuhî		×	×	×	×	×		
Xârâcùù	×		×	×	×	×		
Tîrî			×	×	×	×		
Drubea	×	×	×	×				×
Iaai	×	×			×			

<sup>†</sup>x means that a possessive classifier does exist in the language to express the concerned semantic food categories, whereas shaded cell means that there is no possessive classifier attested for the category.

semantic category as the average set of possessive classifiers among the Oceanic languages consists of a binary distinction between a general class and a consumable class including both food and drink (see, for example, Manam from Papua New Guinea in Lichtenberk 1985:105). Furthermore, POc has been reconstructed with (at least) a system of three possessive classifiers based on the distinction of general (\*na-)/foods (\*ka-)/drinks (\*m(w)a-) (Lichtenberk 2018; Lynch et al. 2002). According to Lichtenberk (2013), the edible-based distinction within the category devoted to alienable relationship goes back to an Oceanic innovation within the Austronesian family.<sup>17</sup>

At least fifteen Kanak languages have a possessive classifier system and all of them retain the kind of food as a distinguishing criterion (table 11). The categories of food nouns that are distinguished are one generic category and up to seven specific ones. Six correspond to the semantic categories detailed earlier for verbs: sugarcane; protein; starchy food; chewable barks; greens, leaves and some fruits; green or unripe fruits; whereas two languages add a specific class for the possessive expression of 'fish/shellfish'.

<sup>17. &</sup>quot;While it is possible that the existence of the alienable-inalienable contrast was due to contact with one or more Papuan languages, the distinctions within the alienable category for food, drink, or alimentary (food-drink), and other, general possession, are not found in the Papuan languages and are clearly a development or developments internal to Austronesian" (Lichtenberk 2013:16).

<sup>18.</sup> Kanak languages differ in the ways the category of free nouns encodes the expression of possession. It can be indirect, making necessary the use of a possessive classifier, as in Iaai; mediate, with a possessive relator or preposition, as *i* in Drehu; semi-mediate, with a lengthening of the final vowel, for example in Xârâcùù; or, finally, immediate, as in Caac for both bound nouns and some possessible free nouns.

Interestingly, Iaai (Loyalty Islands), which has the largest inventory of possessive classifiers (around twenty-three, see Dotte 2013, 2017), only shows three categories based on a semantic differentiation of the 'type of food':

```
(11) IAAI

a-n P_CL.FOOD-3SG an koko 'his/her (food) yam'

iie-n P_CL.SUGARCANE-3SG ieen aakû 'his/her (sugarcane) sugarcane'

hice-n P_CL.CHEWABLE-3SG hicen waasu 'his/her (chewing) bark'
```

Like Iaai, many Micronesian languages have a large paradigm of possessive classifiers, but with only few specifications (in the same language) related to the edible semantic domain. For example, Ponapean has only edible (kene) and drinkable (nime) possessive classifiers (Rehg and Sohl 1981). Mokilese has edible (kanah); drinkable (nimah) and chewing (ngidah) (Song 1997). Kusaiean (ibid.) and Trukese (Sugita 1987) have possessive classifiers for food (Kusaiean na, Trukese ana-), drink (nihmac and wúnúma-respectively), raw/uncooked food (osrwac and wochaa-) and chewable (niyac and ngúta-).

What is noticeable in Kanak languages is that, if a language has a possessive classifier system (even a reduced one), then the edible domain will be one of its categories. Moreover, it is likely that it has more than three categories of food distinguished by different possessive classifiers. Even if possessive classifiers systems in Kanak languages are not among the largest ones within the Oceanic subgroup (with the exception of Iaai), the semantic granularity related to food is one of the most sophisticated (Dotte 2013, 2017).

**5.2. COMPARISON BETWEEN POSSESSIVE CLASSIFIERS AND VERBS IN THE 'EATING' LEXICAL CATEGORIES.** Cross-linguistically, possessive classifiers are mainly derived from verbs (Craig 1992:290). Nevertheless, there are not always exact correspondences between the 'eating' verb and the 'food' possessive classifier in the Kanak languages, even if some matches are relevant.

Once again, the languages from the Hienghène region (Fwâi, Nemi, Jawe, and Pije in the northern Mainland of New Caledonia) are the ones that display the widest range of possessive classifiers dedicated to specific kinds of food. Illustrative examples in Fwâi are provided in table 12.<sup>19</sup>

These examples in Fwâi highlight the clear relation between the forms of eating verbs and the possessive classifiers for corresponding semantic domains. Only *kuu*- in table 12 has a more distant form from the verbal form *kaje* but we can reasonably hypothesize a borrowing process here. Actually, in Jawe, one of Fwâi's sister languages from the Hienghène region, *kuuni* is the verb for 'eat greens' and seems to be related to the possessive classifier *kuu*-, which is

<sup>19.</sup> There is also an attested possessive classifier for drinks (cold beverage) *khûdoo-n* clearly derived from the equivalent verb *khûduk~khûdi* 'to drink water, cold beverage'.

TABLE 12. FWÂI (HIENGHÈNE LANGUAGE, NORTH MAINLAND)
POSSESSIVE CLASSIFIERS.

	Food P	ossessive Classifiers	Corre	sponding Eating Verbs
a.	ca-	'P_CL.STARCHES'	cani	'eat starchy food (yam, taro, banana, rice)'
b.	havie-	'P_CL.SHELLFISH'	In;;	fact most fish amatagan account com ?
c.	hue-	'P_CL.PROTEIN'	hwii	'eat meat, fish, crustacean, coconut, corn'
d.	hule-	'P CL.SUGARCANE'	huli	'eat, to suck sugarcane'
e.	hwaa-	'P_CL.CHEWABLE'	hwai	'chew barks or magnania'
f.	kuu-	'P CL.GREENS'	kaie	'eat cooked leaves, salad, some fruits'

common for all the four languages in the region: Pije, Fwâi, Nemi and Jawe. It is interesting to note that Caac, spoken a few kilometers further to the north of the Mainland east coast, also has the same verb *kuuni* for the same meaning. On the contrary, Pije, Fwâi and Nemi use the verb *kaje* 'eating cooked leaves, salad, some fruits', which is very close in its form to *xaje* in Vamale, one of the Voh-Koné dialects spoken further to the south. Thus, we can assume that the original verb in Pije, Fwâi, Nemi and Jawe was *kuuni* (as it is still attested in Caac), which generates the form *kuu*- for the associate possessive classifier. Later, Pije, Fwâi and Nemi borrowed *xaje* from the southern neighbor Vamale (rephonologized in *kaje*, with a fortition of the initial velar consonant), blurring the correspondence between the verb and the possessive classifier in these three languages, whereas Jawe conserved the original verb-classifier relation.

A second observation on these Fwâi examples concerns the forms in rows b. and c. in table 12, two distinct possessive classifiers, encoding two semantic categories ('portion of shellfish' versus 'portion of meat or fish'), whereas the verbal forms are merged in the verbal paradigm with one common form *hwii*. However, whether this is due to the loss of the verbal distinction or from the innovation in the possessive classifier paradigm is impossible to tell at this stage of the study.

It appears that the semantic field of 'food' and 'drink' is of a special importance in this area, maybe more than in other parts of New Caledonia, and that this emphasis plays a significant role as a categorizing criterion in the lexicon but also in the morphosyntax of the local languages.

In other Kanak languages showing possessive classifiers dedicated to food categories, the match between verb and classifier is less systematic. Possessive classifiers in Iaai are often derived from corresponding verbs, for example a-n 'P\_CL.FOOD-3SG' < an 'eat (generic, TR)' and hice-n 'P\_CL.CHEWABLE-3SG'  $< hic\hat{a}$  'eat chewable food (barks, chewing-gum etc.)'. However, there is no clear etymological link between hwii 'eat (or gnaw) sugarcane' and the possessive classifier for the corresponding category of one's portion of sugarcane ie-n, whose origin remains uncertain. Nevertheless, the interesting thing to note here is that the semantic category is distinguished within both the verbal and the nominal lexical domains in this language.

The case of Nêlêmwa (North Mainland; Bril 2002:364–65) is slightly different as caa- 'P\_CL.STARCHES' cannot be related to any corresponding verb for starchy food consumption. The semantic category does exist in the scope of the possessive classifier system, but is missing in the verbal one. Four of the other 'eating' verbs attested in Nêlêmwa are etymologically related to corresponding food possessive classifiers:<sup>20</sup> khuri 'eat sugarcane' > khora-'P CL.SUGARCANE (portion of sugarcane or of a specific variety of coconut)';  $k\hat{u}\hat{u}ri$  'eat greens, leaves, fruits' >  $k\hat{u}\hat{u}$ - 'P\_CL.GREENS (portion of greens, leaves, fruits)'; maa 'to masticate > maa- 'P\_CL. CHEWABLE';21 and thaxilolî 'eating green or unripe fruits' > thaxilo- 'P\_CL. UNRIPE'. Finally, the classifier khoo- 'P\_CL.PROTEIN' used for the possession of a portion of protein food (meat, fish, turtle, coconut flesh etc.) is etymologically related to khuwo 'eat (generic)', whereas there is no specific verb for 'eating protein food' in Nêlêmwa. The semantic scope of the generic verb seems to have narrowed until focusing on the specific type of protein/fleshy food in the case of the possessive classifier.

If it is true that there is a core semantic match between eating verbs and possessive classifiers devoted to food portions in Kanak languages, a perfect correspondence is almost never found. What is clear, however, is that the semantic domain of food and eating is a crucial culturally salient domain that is very specifically encoded in the lexicon and the morphosyntax of a large part of the Kanak languages by verbs and by possessive classifiers (Boawe and La Fontinelle-Kasarhérou 2020; and see Grinevald 2016 for the discussion of the relationship between classifiers and salient cultural domains).

**6. MORPHOSYNTACTICAL CONSIDERATION.** The preceding discussion of semantic differentiations in 'eating' verbs would be incomplete without a look at their morphosyntactic properties, especially their valency, from a typological perspective (Newman 2009). In cross-linguistic studies verbs of eating are frequently described as not behaving like ordinary transitive verbs (Næss 2011), occurring in different types of constructions, in relation to the degree of affectedness, and showing selective restrictions on the Patient (Gast et al. 2014).

From a morphosyntactic perspective, generic 'eating' verbs in Oceanic languages fall into three types in terms of how transitivity is encoded:

- 1. Intransitive and transitive verbs are two separate lexical items (section 6.1)
- 2. The transitive form is derived from the intransitive one (section 6.2)
- 3. Labile verbs which can be used both intransitively or transitively; or in some cases with an oblique object (section 6.3)

<sup>20.</sup> Nêlêmwa is the Kanak language with the second most extensive classifier system, with a dozen of them (Bril 2002:364–67).

<sup>21.</sup> maa in the Poum dialect and hmaa in the Koumac dialect.

# **6.1. LEXICAL DIFFERENTIATION BETWEEN INTRANSITIVE AND TRANSITIVE VERBS.** As already mentioned, POc distinguished between intransitive and transitive verbs with \*paŋan 'eat (INTR)' and \*kani 'eat (TR)'. The intransitive verb \*paŋan has few reflexes in Oceanic languages, having often been replaced by reflexes of \*kani, the transitive verb.

The distinction between a transitive and an intransitive generic 'eating' verb has been maintained in some languages, such as Toqabaqita (Solomon Islands), with an intransitive 'eat' verb, *fanga*, "which [does] not carry any inflectional morphology", and which cannot take an object (Lichtenberk 2008b:60), versus a transitive verb, *qania*. An example of Toqabaqita intransitive *fanga* 'eat' is given in (12) below.

(12) TOQABAQITA (Lichtenberk 2008b:60)

Nau ku fanga sui naqa
1SG 1SG.NFUT eat COMPL PRF

'I have finished eating.'

An intransitive 'eat' verb is also found in Anejom (Vanuatu) with *hag* [haŋ] 'eat' INTR (< POC \*paŋan), versus the transitive counterpart *ciñ* [yiñ] 'eat' TR (< POC \*kani) (Lynch and Tepahae 2001).

- **6.2.** A PAIR OF VERBS WITH TWO COGNATE FORMS. In Boumaa Fijian, according to Dixon (1988:227), there are two forms, 'ana (intransitive form) and 'ani-a (transitive, A type verb, that is, "the focus is on the person who eats"). The intransitive form occurs when the object is incorporated, as shown in (13b)
- (13) BOUMAA FIJIAN

  a. E 'ani-a a uto.

  NPST eat-TR ART breadfruit

  'He is eating the/some breadfruit.'
  - b. E 'ana.uto

    NPST eat.breadfruit

    'He is eating breadfruit.'

In Samoan, there are also two cognate forms for the verb 'eat': 'ai and 'aina (Milner 1966:9). They can both occur with two arguments:

(14) SAMOAN
'Ua 'ai e loi suka.

PFV eat ERG ant sugar

'He is eating the/some breadfruit.'

(15) Na 'aina talo e pua'a.

PST eat.SUF taro ERG pig

'He is eating breadfruit.'

But when only one argument is expressed, it will refer to the agent (with 'ai) or to the patient, with 'aina as in the following example:

(16) SAMOAN
Sā 'aina le fāsipovi
PST eat.SUF SPC piece.of.beef
'The piece of beef was eaten.'

According to Pawley (p.c.), 'aina, which Milner glosses 'perfective', seems to behave like a typical ergative verb, except that it has the sense of 'eat up, be eaten up, completely eaten'.

Some Kanak languages have two cognate forms for the same generic 'eat' verb according to the valency or the degree of definiteness of the object: Iaai has *han* when occurring by itself (*ame han* 'he is eating') or an indefinite object (*ame han koko* 'he is eating yams'), but *an* when followed by a specific object (*ame an koko* 'he is eating the/a yam').

Fagauvea/West Uvean, the Kanak Polynesian Outlier spoken in Ouvéa (Loyalty Islands), which inherited several Samoan features (Moyse-Faurie 2000), has kept both forms: an intransitive one, *kai*, and a derived transitive one, *kaina*.

*Kai* occurs in intransitive constructions, either by itself (17), or followed by an incorporated object (18b); while *kaina* occurs in a transitive construction, with a specific object (19) which can remain unexpressed (18a):

- (17) FAGAUVEA/WEST UVEAN
  I de kai i de pō
  3SG NPST eat.INTR OBL SPC night
  'He eats during the night.'
- (18) a. E ā gilā de kaina?

  NPST be.what 3DU NPST eat.TR

  'What are they eating?'
  - b. Gilā de kai ufi.

    3DU NPST eat.INTR yam

    'They are eating yams.' (they are yam eating)'
- (19) Goati go ia kaina na dana mangiti na tuna a dona pupa. then PFV 3SG eat.TR there his tubers PST cook AGT his grandmother 'Then he ate the tubers his grandmother has cooked.'

**6.3. LABILE VERBS WHICH CAN BE USED BOTH INTRAN- SITIVELY AND TRANSITIVELY.** In Wayan (West Fijian), contrasting with Boumaa Fijian, the verb *kani* 'eat' is an actor subject verb, either transitive or intransitive. When followed by certain adjectives it is intransitive with the meaning 'have a certain taste', for example *kani vinā* (lit. eat good) 'be good tasting, be good eating', with an undergoer subject, for example *sā kani vinā na magiti* (PFV/eat/good/ART/meal) 'the meal tasted good' (Pawley, p.c.).

Similarly, about half of the Kanak languages have only one verb for 'eat (in general)'. This 'eat' verb can occur with or without an object, without any formal change, as in Xârâcùù examples (20) and (21), respectively:

- (20) XÂRÂCÙÙ È da na xöö-dö amû ngê chêêdê. 3sg eat PST egg-hen yesterday during evening 'He ate eggs yesterday night.'
- (21) Îrî nää sae caa mè rî da.

  1PL.INCL PST.PROG each.time hunt in.order.to 1PL.INCL eat

  'We used to hunt each time in order to eat.'

The Kanak eating verbs for 'ingestion of specific kinds of food', however, are different: they must co-occur with an overt object:

- (22) Nâ kê ku. 1sg eat.tubers yam 'I am eating yams.'
- (23) \* nâ kê 1sg eat.tubers

To conclude, regarding the syntactical aspect of the generic 'eat' verbs both cases are found depending on the construction. If the construction is intransitive, it is the generic 'eat' verb which is used, pointing out the agent and the eating activity. In transitive constructions, the action is patient-oriented, whether the patient is overtly expressed or not. With nongeneric 'eat' verbs, by contrast, the object is obligatorily expressed. In both cases, however, the activity is always patient-oriented.

7. **CONCLUSIONS.** Our comparative survey shows that the different verbs used to describe the action of eating (even in the more general sense) do not relate to exactly the same type of food in the different Kanak languages. Each language can have its own inventory of 'eating' verbs and an association with food nouns, but specific shared categories clearly stand out, depending on physical, nutritive or symbolic (cultural) criteria.

All languages have a generic 'eat' verb, along with additional verbs of 'eating', used for specific types of foods (e.g., sugarcane, starchy food, greens, chewable, raw meat, etc.); but the categorization of different types of food is not uniform across Kanak languages, and the number of these specific verbs of 'eating' vary.

Furthermore, this cross-linguistic study reveals that the different patterns are distributed areally, with the main contrast between the Loyalty Islands and New Caledonian Mainland.

The languages of the Loyalty Islands show a three-term opposition: the general term for 'eating' (which is also used for 'eating starchy food'), and two other 'eating' terms: one for chewable food (in Iaai and Nengone),

one for sugarcane (in Iaai and Drehu), and one for protein (in Drehu and Nengone).

North Mainland languages spoken in the Hienghène area (Jawe, Nemi, Fwâi, Pije on the east coast, plus Pwapwâ and Pwaamei on the west coast) have a much larger set of 'eating' verbs with six different lexicosemantic categories, that is to say all the mentioned categories excluding 'eating raw food; green fruits' (only attested in the far northern Mainland languages Nyelâyu and Nêlêmwa, and Drubéa in the southern Mainland). Southern Mainland languages show therefore a transition between the minimal and the maximal systems, with three (Numèè) to five (Ajië) categories.

It appears that the idiosyncrasy of Kanak languages is that they concentrate all the different semantic categories of 'eating' verbs available in the Oceanic subgroup. These languages did not innovate in coining new categories or distinctions, but they differentiate themselves in combining or reorganizing this range of verbs. Strikingly, the encoding of each Kanak 'eat' verb is very similar to what is found in the northern Aslian language Jahai, spoken by subsistence foragers, showing four main distinctions: 'eat starchy food', 'eat leafy greens', 'eat ripe-fruit' and 'eat animal' (Burenhult and Kruspe 2016:5), despite the fact that the Aslian remained foragers while the Kanak rapidly combined agricultural resources with forest subsistence.

This large array of semantic granularity found in the verbal lexical domain of Kanak languages is also relevant as far as possessive classifiers systems are concerned in these languages. Indeed, indirect possessive constructions involving edible items also provide information on the noun class with which it is associated through the choice of the possessive classifier. If it is true that Oceanic languages typically have elaborate systems of possessive classifiers, Kanak languages are particularly significant in the use they make of such rich systems mainly based on the criterion of the nature of food.

Finally, we turned our attention to morphosyntactic characteristics of the Oceanic 'eating' verbs. It is cross-linguistically well attested that the verbs for 'eat' "are two-participants verbs, but not necessarily transitive verbs" as pointed out by Næss (2011:414), since they often occur without an object. In the Oceanic languages which retained reflexes of both the intransitive and the transitive POC verbs, or which have two different forms for the same verb according to the valency, the situation is even more complex. In any case, however, the transitive verb is always patient-oriented: the patient is optionally expressed with generic 'eat' verbs, and obligatorily expressed with nongeneric ones. Indeed, in Kanak languages, the main parameter associated with the basic action of eating is what is eaten. The selection of a verb typically depends on the meaning of the object, that is, on the type of food that is eaten, along with the manner of eating it.

APPENDIX

TABLE 13. COMPARATIVE LEXICON FOR 'EATING' VERBS IN TWENTY-TWO KANAK LANGUAGES.<sup>†</sup>

								Greens,	Raw.
	Language	Categories <sup>‡</sup>	Generic	Sugarcane	Chewable	Starchy	Proteins	leaves, fruits	green fruits
Mainland > North	Nyelâyu	5	nnq	huur		नु	y+ <b>Protein</b> huc	ûûr	thaxilo
	Nêlêmwa	5	khu-wo, khuxi	khuri		khuxi, baali#		kûûra/kûûri	thaxilolî
	Caac	9	huu; whic	huuxuc	maani	cani	wii	kuuni	
	Jawe	9	huu	huli	hwei	cani	hwii	kuuni	
	Nemi, Fwâi	9	hwi-aman	huli	hwai	cani	hwii	kaje	
	Pije	9	hwi-aman	holi	hwai	cani	hwii	kaje	
	Pwapwâ	9	xhwi-aman	xhuli	xhwei	cani	xhwii	kûûni	
	Pwaamei	9	xhwi-aman	huti	xhwai	zani	xhwii	kûûni	
	Bwatoo	5		xhuti		xhajake	xhwii	kûû	
	Vamale	5		xhuti	fwai	xhajake		xaje	
	Cèmuhî	5			pwèi	éni	wíi	anye	
	Paicî	4		wíi	pwé		útí		
Mainland >	Ajië	5	ara	wa'	kwârâ	kâi	ij		
South	Xắrâcùù	4		Sugarcane+Chewable kê xwii	Chewable i	kê	xwè		
	Haméa,Tîrî	4		hwii		é	ho		
	Drubéa	4	kèrè-re	kùu-re			Protein+Greens kwè-re	Greens -re	kwè–bérii–re
	Numèè	3	kii-rè	kuu-rè			kwè–re (fish)		
Loyalty	Iaai	3	an/han	hwii	hicâ				
Islands	Drehu	3	xen	atra			öni		
	Nengone	3	kaka/kakan		chaphan		ia/ian		
	22 5		22	10	13	15	1.7	72	,,

Light gray empty cell means that there is no lexicalized specific form attested to render the action of related food consumption. Instead, it is the generic 'eating' verb that

applies.

‡We only counted categories that are distinguished by specific verbs (or the generic). A verb that merges two categories of otherwise distinguished categories is not counted.

#Balbaali in Nixumwak (Koumac dialect; Bril 2000:95).

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