

A Mismatch between Phonology and Grammar in Vatulele Fijian

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3. A Mismatch between Phonology and Grammar in Vatulele Fijian¹⁾

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Abstract

This chapter deals with a construction which can be called a prepositional verb in Vatulele Fijian. Usually, the preposition *i*, which indicates that the subsequent noun is oblique, forms a phonological unit with the following noun phrase. However, in the prepositional verb construction, it is phonologically combined with the preceding verb. In spite of its phonological unity, the prepositional verb construction does not show any syntactic unity. That is to say, it cannot be analyzed as an applicative construction. This means that there is a mismatch between phonology and grammar. Although one can observe similar mismatches inside and outside Fijian, the prepositional verb construction is peculiar in that the preposition phonologically behaves like a suffix rather than an enclitic. This mismatch casts doubt on the definition of a “word” in Fijian languages.

3.1. Introduction

This chapter deals mainly with a construction as in (1), which we will call “the prepositional verb construction” or a “prepositional verb” in Vatulele Fijian. This construction is not observed in standard Fijian. Note that a plus “+” indicates a boundary between morphemes within a single phonological unit.

- (1) *la+wa+i* *na* *koronivuli*
go+THITHER+OBL ART school
‘go to school’

What is interesting about this construction is that it has a mismatch between phonology and grammar. In (1), the morpheme *i* is phonologically combined with the preceding verb phrase, while grammatically (or syntactically) with the following noun phrase (NP). This chapter will reveal that the phonological boundary does not mean the grammatical one in Vatulele Fijian.

The organization of the chapter is as follows. Section 3.2 provides some preliminaries on Vatulele Fijian. In Section 3.3, we describe prepositional verbs from semantic, phonological

and syntactic viewpoints. Although the prepositional verb construction is similar to applicative constructions in other languages, two syntactic operations show that an NP after a prepositional verb (e.g. *koronivuli* in (1)) is not a core argument but a peripheral one. Section 3.4 explains the mismatch between phonology and grammar of prepositional verbs with some comparisons with similar phenomena inside and outside Fijian. Then, we will discuss why this mismatch occurs. Section 3.5 is the conclusion, where some remaining issues are also pointed out.

3.2. Preliminaries

Vatulele Fijian is an Oceanic language (Austronesian, Malayo-Polynesian) with a basic word order of VOS, spoken in Vatulele Island, Fiji. It belongs to the Western Fijian group (Figure 3-1).

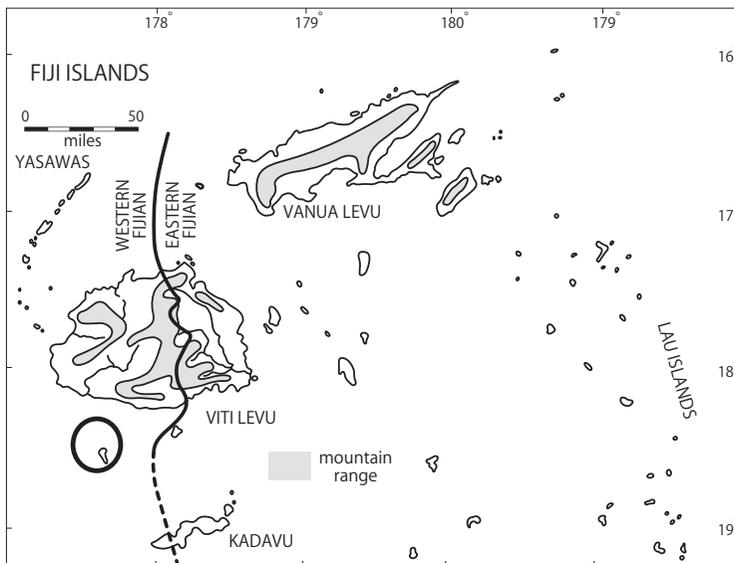


Figure 3-1 The map of Fiji (based on Pawley and Sayaba 1971: 408, the circle, indicating Vatulele Island, is added by the author)

The phonemes are shown in Table 3-1 and Table 3-2. This chapter utilizes the Fijian orthography. Long vowels are written with a macron, which are usually not marked in the script.

Table 3-1 Consonants

	BILABIAL	DENTAL	ALVEOLAR	POSTALVEOLAR	VELAR	GLOTTAL
Nasal	<i>m</i>	<i>n</i>			<i>g</i> [ŋ], <i>gw</i> [ŋ ^w]	
Plosive	<i>b</i> [ᵐb]	<i>t</i> , <i>d</i> [ᵐd]			<i>k</i> , <i>q</i> [ᵑg] <i>kw</i> [k ^w], <i>gw</i> [ᵑg ^w]	
Fricative	<i>v</i> [β]	<i>c</i> [ð]	<i>s</i>			<i>h</i>
Affricative				<i>j</i> [tʃ], <i>z</i> [ᵐdʒ]		
Trill			<i>r</i> , <i>dr</i> [ᵐr]			
Lateral			<i>l</i>			
Approximant			<i>y</i>		<i>w</i>	

Table 3-2 Vowels

<i>i</i>		<i>u</i>
	<i>e</i>	<i>o</i>
	<i>a</i>	

Like many other Oceanic languages, syllables are open and the stress falls on the penultimate syllable. Schütz (1985) provides the Fijian stress rules as in (2).²⁾

(2) Stress rules

- a. Two short syllables, with stress on the penultimate.
- b. Three short syllable, with stress on the penultimate.
- c. One long syllable (i.e. long vowels and diphthongs), stressed.
- d. One short syllable followed by one long one, with stress on the long one.

(Schütz 1985: 475)

We will call a unit with a stress assigned by the rules (2) “a phonological unit.” Due to the stress rules above, monosyllabic morphemes cannot be phonologically independent, so they must depend on the preceding or subsequent element to form a phonological unit, while an element containing a long vowel or a diphthong can stand alone. For example, in (3)a, the article *na*, a monosyllabic morpheme, forms a phonological unit with the following *were* ‘house.’ (3)b is another example, where the third person singular possessive marker (usually analyzed as a prefix) is phonologically combined with the subsequent *yaca* ‘name.’ When necessary, the stressed syllable is underlined.

- (3) a. *na+were* b. *e+yaca*
 ART+house 3SG.POSS+name
 ‘the house’ ‘his/her name’

(4) is, on the other hand, an example of a monosyllabic morpheme forming a phonological unit with the preceding element, which is usually analyzed as a suffix. In this case, the stress position is shifted.

- (4) *taci+qu* < *taci*
 younger_sibling+1SG.POSS younger_sibling
 ‘my brother/sister’ ‘brother/sister’

This chapter focuses on the oblique marker *i*. This marker functions as a preposition to indicate the following NP is a peripheral argument such as “location,” “goal,” “instrument,” etc. This preposition is also a monosyllabic morpheme, so it must depend on the subsequent element as in (5).

- (5) a. *i+na* *were* b. *i+kei*
 OBL+ART house OBL+here
 ‘to the house’ ‘here’

3.3. Description of Prepositional Verbs

In this section, we will make a description of prepositional verbs. Section 3.3.1 provides a brief semantic characteristic of prepositional verbs. Sections 3.3.2 and 3.3.3 are directly related to the core of this chapter, where phonological and syntactic descriptions are given respectively.

3.3.1. Semantic Point of View

The prepositional verb construction is observed only with verbs that are strongly associated with “location” or “goal” such as *lā* ‘go,’ *tadra* ‘sit,’ *nō* ‘stay,’ *koto* ‘lie,’ *moce* ‘sleep,’ etc. (6).

- (6) {*la+i* / *tadra+i* / *no+i* } *na* *io*
 go+OBL sit+OBL stay+OBL ART mat
 ‘go to / sit down on / stay on the mat’

On the other hand, verbs whose meaning is not necessarily associated with “location” or “goal” do not have the prepositional verb alternative. With *kana* ‘eat,’ for example, the prepositional verb construction is never observed (7). Please note that an asterisk ‘*’ indicates that the linguistic form is ungrammatical.

- (7) a. *kana* *i+kei* b. **kana+i kei*
 eat OBL+here eat+OBLhere
 ‘eat here’

3.3.2. Phonological Point of View

As mentioned above, the preposition *i* is monosyllabic, forming a phonological unit with the following element (8).

- (8) (=5) a. $\underline{i}+na$ \underline{were} b. $\underline{i}+kei$
 OBL+ART house OBL+here
 ‘to the house’ ‘here’

In prepositional verbs, however, the preposition *i* forms a diphthong with the ending vowel of the preceding verb or verb phrase, the stress being placed on it (cf. (2)c, d). That is to say, the preposition *i* is phonologically combined with the preceding verbal element, not the following NP. (9)a is an example of a prepositional verb, where the preposition *i* is combined with the verb *tadra* [taⁿra] ‘sit,’ forming the diphthong [ai]. (9)b relates to a stress pattern expected from (8).

- (9) a. $\underline{tadra+i}$ \underline{kei} b. $\ast\underline{tadra}$ $\underline{i+kei}$
 sit+OBL here sit OBL+here
 ‘sit down here’

Besides the stress position, another piece of evidence for a single phonological unity is that some speakers shorten the diphthong *ai* and pronounce it like [taⁿre], which is never observed between independent words.

There are some additional notes for *lā* ‘go.’ *Lā* ‘go’ has a long vowel, so it is phonologically independent alone (10). This verb combines with a postverbal modifier such as *wā* (THITHER), *mā* (HITHER), or *nō* (CONTINUOUS), forming a single phonological unit (11).³⁾

- (10) $\underline{Lā!}$
 go
 ‘Go!’

- (11) a. $\underline{la+wa}$ < $\underline{lā}$ $\underline{wā}$
 go+THITHER go THITHER
 ‘go away’

- b. $\underline{la+ma}$ < $\underline{lā}$ $\underline{mā}$
 go+HITHER go HITHER
 ‘come’

- c. $\underline{la+no}$ < $\underline{lā}$ $\underline{nō}$
 go+CNT go CNT
 ‘going’

The prepositional verb construction is often observed with these combined forms especially in everyday conversation (12).

- (12) {*la+wa+i* / *la+ma+i* / *la+no+i* } *lequ were*
 go+THITHER+OBL go+HITHER+OBL go+CNT+OBL my house
 ‘go away / come / going to my house’

3.3.3. Syntactic Point of View

From its phonological unity discussed in Section 3.3.2, it is predictable that a prepositional verb behaves as a single word. Perhaps, it has somewhat the same features as a transitive verb, the subsequent NP being an object. In other words, one can analyze a prepositional verb as an applicative construction.⁴⁾ Cross-linguistically, an adposition (i.e. preposition or postposition) tends to become an applicative marker (Craig and Hale 1988; Peterson 2007: 125–129).

Take a look at the example (13) from Nadëb, a Nadahup language of the Brazilian Amazon. In (13)a, *yó* functions as a postposition indicating that the preceding noun is a location. On the other hand, (13)b is the applicative construction, where the same morpheme is prefixed to the verb *sooh* ‘sit.’

- (13) a. *Kalapéé a-sooh bxaah yó*
 child F-sit tree on
 ‘The child is sitting on the tree’

- b. *Baah kalapéé ya-sooh*
 tree child APPL-sit
 ‘The child is sitting on the tree’

(Craig and Hale 1988: 313–314, glosses are by the author)

Another example is from Kinyarwanda, a Bantu language. In (14)a, *ku* is a preposition, while in (14)b the same morpheme functions as the applicative suffix. Note that there is a sound change on the morpheme, i.e. *ku* is realized as *-ho* in the applicative construction (Kimenyi 1980: 89).

- (14) a. *Ábáana b-iica-ye ku mééza*
 children 3PL-sit-throw-ASP on table
 ‘The children are sitting on the table’

- b. *Ábáana b-iica-yé-ho ámééza*
 children 3PL-sit-ASP-APPL table
 ‘The children are sitting on the table’

(Kimenyi 1980: 92, glosses are by the author)

At first glance, these constructions are akin to a prepositional verb in Vatulele Fijian in that an adposition is attached to a verb. You can see the similarity between (13)b, (14)b and (15).

- (15) *Arai tadra+i na tēveli na kwāhewa*
 3PL.NPST sit+OBL ART table ART child
 ‘The children are sitting on the table’

The claim of this chapter is, however, that a prepositional verb is not an applicative construction. The following sections provide two syntactic explanations to support this claim. One is from the replaceability with an interrogative noun and the other from the formation of a relative clause. To put it another way, an NP after a prepositional verb is not a core argument but a peripheral argument.⁵⁾

3.3.3.1. Replacement with *cā* ‘what’

The replacement with an interrogative noun confirms the fact that an NP after a prepositional verb is a peripheral argument.

Vatulele Fijian replaces their core arguments with *cā* ‘what’ in interrogative sentences. In (16), an object of a transitive verb *dania* ‘see’ is replaced with *cā* ‘what.’

- (16) *O+dania na cā?*
 2SG+see:TR:3SG ART what
 ‘What did you see?’

If a prepositional verb is a transitive verb, one should expect that the same interrogative noun *cā* ‘what’ is used. In Vatulele Fijian, however, this is not the case. An NP of the prepositional verb must be replaced with *vei* ‘where’ (17)a, not with *cā* ‘what’ (17)b.

- (17) a. *O+la+i vei?*
 2SG+go+OBL where
 ‘Where did you go?’
 b. **O+la+i na cā?*
 2SG+go+OBL ART what

In short, because NPs of prepositional verbs are replaced not with *cā* but with *vei*, it can be said that they are peripheral arguments.

3.3.3.2. Relativization

Relativization also shows that an NP after a prepositional verb is a peripheral argument.

Relative clauses of core arguments are expressed by fronting. (18) is a transitive clause so the oblique marker *i* does not appear, where the object of a transitive verb *kania* ‘eat’ is placed before the predicate (or verb phrase).

- (18) *na ika qu kani-a*
 ART fish 1SG eat:TR-3SG
 ‘the fish that I ate’

However, the relativization of NPs of prepositional verbs is different from that of core arguments. (19) is ungrammatical, where an argument NP of *la+i* ‘go to’ is fronted.

- (19) **na koronivuli matu la+i*
 ART school 1PA.EXCL go+OBL

When an NP of a prepositional verb is relativized, not only the NP is fronted, but also the postverbal modifier *kē* must appear as a trace at the original position of the relativized NP as in (20).

- (20) *na koronivuli matu lā kē*
 ART school 1PA.EXCL go RES
 ‘the school which we went to’

This is the same case as other peripheral arguments such as a temporal expression (21).

- (21) *na higa matu lā kē*
 ART day 1PA.EXCL go RES
 ‘the day when we went’

From these points, the claim that a prepositional verb is a single syntactic unit, i.e. a transitive verb, cannot stand.⁶⁾

3.4. Mismatch between Phonology and Grammar

As discussed in the previous section, a prepositional verb is a single unit from a phonological point of view. However, grammatically, the preposition *i* is connected with the following NP because it is a syntactic marker to indicate that the following NP is peripheral. In other words, the phonological boundary and the grammatical boundary are not coincident.

Before going into the discussion, it is necessary to claim that this *i* is not a transitive suffix. It is true that some Austronesian languages have *i* as “local transitive suffix” (*Austronesian Comparative Dictionary*). In addition, Pawley (1973) reconstructed the transitive suffix **-i* in Proto-Oceanic. However, **-i* corresponds *-Ci* in Vatulele Fijian, *C* being a lexical-determined consonant. For example, the transitive suffix *-vi* derives *dola-vi-a* ‘open it’ from *dola* ‘open.’

Section 3.4.1 and 3.4.2 will provide two constructions similar to prepositional verbs. Through comparison with them, we will point out what is peculiar to prepositional verbs.

3.4.1. The Nominalizer *i-* in Fijian

The mismatches between phonology and grammar in Fijian are discussed in previous literature such as Schütz (1985), Dixon (1988, 2009) and among others. The most well-known case is the combination of the article *na* and the nominalizer *i*.⁷⁾ This holds true for Vatulele Fijian (22) (see also (18)).

- (22) $\frac{na+i-}{ART+NMLZ-}$ $\frac{sele}{cut}$
 ‘the knife’

Phonologically the article *na* and the nominalizer *i* are pronounced as a single unit *nai*. Grammatically, on the other hand, the nominalizer *i* is attached to the verb *sele* ‘cut’ and derives a noun *isele* ‘knife.’ Dixon (1988: 21-6) establishes two kinds of word. One is a “phonological word,” and the other is a “grammatical word.” Based on his definition, in (22), there are two phonological words, *nai* and *sele*, as well as two grammatical words, *na* and *isele*.

3.4.2. Case-marking Prepositions in Philippine Languages

Philippine languages also have mismatches between phonology and grammar. Reid (2006a, 2006b) shows that, in Nuclear Cordilleran languages, case-marking prepositions have two forms depending on the phonetic environment of the preceding word. Let us take an example of the oblique preposition in Guina-ang Bontok. When the preceding word ends with a consonant, the form of this preposition is *as* (23)a. When the preceding word ends with a vowel, on the other hand, this preposition is optionally encliticized to it, being *=s* (23)b (Reid 2006a: 460). In the latter case, you can see mismatches between phonology and grammar. Note that [] in the second line in (23) indicates a grammatical boundary.

- (23) a. *As omára=ak as nan fótog as áfong=cha*
 FUT get=NOM.1SG [OBL NS+DEF pig] [OBL house=GEN.3PL]
as kasi.
 [OBL one.day.removed]
 ‘I will get some of the pigs from their house the day after tomorrow.’
- b. *As omára=cha=s nan áso=s áfong=cha=s*
 FUT get=NOM.3PL=[OBL NS+DEF dog]=[OBL house=GEN.3PL]=[OBL
kasi.
 one.day.removed]
 ‘They will get some of the dogs from their house the day after tomorrow.’
 (Reid 2006a: 460, glosses are by the author)

3.4.3. The Peculiarity of Prepositional Verbs

At first glance, the prepositional verb construction is similar to the phenomena discussed in the preceding sections. This section shows that it is still slightly distinct from them and discusses how peculiar it is and why it results in a mismatch between phonology and grammar.

First, let us take a look at the nominalizer in Fijian. An example like (24), mentioned in Section 3.4.1, is a combination of monosyllabic morphemes, both of which have no effect on the stress position each other.

- b. *kila-a* < *kila*
 know-TR:3SG know
 ‘know it’ ‘know’
- (27) a. *la+ma+i* < *la+ma*
 go+HITHER+OBL go+HITHER
 ‘come to’ ‘come’
- b. *no+i* < *nō*
 stay+OBL stay
 ‘stay in’ ‘stay’
- c. *tadra+i* < *tadra*
 sit+OBL sit
 ‘sit on’ ‘sit’

One may ask why this mismatch occurs. First of all, it seems likely for [i] to form a diphthong with the preceding vowel. On the other hand, the standard Fijian counterpart prepositions, *ki* and *e*, are less likely to be combined with the preceding element. However, it should be emphasized that the formation of a diphthong is not an automatic process. The diphthong [ai] is not formed between the article *na* and a lexical item with the word-initial vowel *i* (28) (cf. (22)).

- (28) a. *na iloilo* b. *na ika*
 ART mirror ART fish
 ‘the mirror’ ‘the fish’

The mismatch might be accounted for from various perspectives. Asao (2014, 2015) claims that, generally speaking, it is more preferred that a long element comes before a short one as in (29)a than the converse order as in (29)b. In addition, there is a tendency for the phonological boundary to be immediately after a short element (Asao 2014: 314).

- (29) Asao (2014: 314)
 a. [a long element] [a short element]
 b. [a short element] [a long element]

That (29)a is more preferred means that suffixing is more preferred, which is pointed out by Sapir (1921), Bybee *et al.* (1990), and others. Asao (2015: 70) argues that “shorter morphemes are harder to identify, because shorter morphemes are more likely to match a part of other morphemes by chance,” providing an example as follows:

Consider the English word form pipes /paɪps/, which has the plural suffix *-s*. After hearing the first three segments /paɪp/, one can be very sure that the morpheme pipe is used, and can

be ready to hear the next morpheme. On the other hand, imagine a hypothetical language where everything is the same as English except that the plural morpheme is a prefix *s-*, and suppose that one hears the plural of pipe, which is *s-pipe* /*spaip*/. When hearing *s-*, one cannot be sure whether this is the plural prefix or a part of another morpheme. After hearing /*spaip*/, one is still not sure whether one has already passed a morpheme boundary, or a morpheme such as spy or spike is being uttered. When hearing the entire sequence /*spaip*/, one is finally able to notice that there was in fact a morpheme boundary in an earlier stage, assuming that there is no morpheme that begins with /*spaip*/. This means that the fast recognition of a morpheme boundary near the beginning of a phoneme sequence tends to be difficult.

(Asao 2015: 71)

This generalization might hold for the prepositional verb construction, as well as the applicative construction in Kinyarwanda mentioned in Section 3.3.3.

It is still unclear why the prepositional verb construction does not result in a single syntactic unit in spite of its phonological unity, i.e. why a reanalysis has not occurred. One of the possible explanations is that prepositional verbs have no morphological similarity to “authentic” transitive verbs. In Vatulele Fijian, a transitive verb usually has the ending vowel [a] when it takes a common noun as the object (30) (see also (26)b), so there is no transitive verb with a diphthong like [ai] as the ending.

- (30) *Qudola-vi-a na mataniwere*
 1SG open-TR-3SG ART door
 ‘I opened the door’

3.5. Conclusion

This chapter showed that prepositional verbs result in a mismatch between phonology and grammar. To put it another way, Vatulele Fijian is a language with a clear distinction between a core argument and a peripheral argument.

This mismatch directly relates to the definition of a “word.” As Geraghty (1983) points out as follows, it is difficult to define a “word” (or an “affix”) in Fijian.

“Prefix,” “suffix,” and “word” are not well-defined terms in Fijian. For the moment, we shall call a form bound to the base, with no intervening forms permitted, a prefix or suffix.

(Geraghty 1983: 16)

As mentioned in Section 3.4.1, Dixon (1988, 2009) defines two different types of words, i.e. “phonological word” and “grammatical word.” According to his definition, the mismatch of the prepositional verb construction can be explained. A prepositional verb, which I refer to just as a “phonological unit” throughout the chapter, consists of a single phonological word, the preposition *i* being an independent grammatical word. Cross-linguistic considerations are required to clarify the definition of a word in Vatulele Fijian.

This chapter is not concerned with other mismatches outside Fijian, except for encliticized

prepositions in Guina-ang Bontok discussed in Section 3.4.2. According to Asao (2014)'s theory, it is expected that languages with VO word order, which generally prefer prepositions than postpositions (Dryer 2007: 89), have a mismatch between phonology and grammar. The reason is that a preposition, usually a short form, tends to be attached to the preceding longer form (perhaps a verb). The relationship between mismatches and word order might be involved in the development of the applicative construction. Peterson (2007) claims as follows:

These adpositional applicatives are of interest because they are examples of adpositional applicatives in languages which do not have basic word OV order (which is the case for most languages discussed by Craig and Hale), and hence they provide instances of a comparable development in VO languages.

(Peterson 2007: 127)

This chapter is just a brief description of part of the grammar, so further investigations are of course needed. As mentioned in Section 3.3.1, only verbs whose meaning is strongly related to “location” or “goal” have the prepositional verb alternative. However, it still remains an open question which verbs have the prepositional verb construction. It also needs to be pointed out that there is a possibility that the prepositional verb construction is in the process of grammaticalization. The following points must be clarified (31).

- (31) a. Can a prepositional verb constitute a complete utterance, all by itself?
 b. Can any elements appear between a prepositional verb and the NP?
 c. Is it obligatory or optional to form a prepositional verb? Is it possible to make an utterance like (9)b or (25)b?

It should be kept in mind that this study is a synchronic analysis and that prepositional verbs may develop into an applicative construction in the future.

Abbreviation

1, 2, 3	1st, 2nd, 3rd person	NPST	non-past
APPL	applicative	NS	nominal specifier
ART	article	OBL	oblique
ASP	aspect	PA	paucal
CNT	continuous	PL	plural
DEF	definite	POSS	possessive
EXCL	exclusive	PST	past
F	formative	RES	resumptive
FUT	future	SG	singular
GEN	genitive	TR	transitivizer
NMLZ	nominalizer		
NOM	nominative		

Notes

- 1) This chapter is a revised and expanded version of a presentation titled “Core arguments and peripheral arguments in Vatulele Fijian: With a special focus on the oblique marker *i*,” that was presented at the International Symposium (Fijian languages and GIS project, and its application to museum exhibits) held at National Museum of Ethnology (Minpaku) on September 20th, 2018. I would like to thank those who provided me with many helpful and constructive comments.
- 2) Schütz (1985) himself uses the term “accent” instead of “stress.”
- 3) *lā* ‘go’ is never monophthongized to combine with the preceding morpheme. For instance, the first-person pronoun *qu* is attached to *lā* without monophthongization like *qu+lā*, not **qu+la*.
- 4) Peterson (2007: 1) defines an applicative as “a means some languages have for structuring clauses which allow the coding of a thematically peripheral argument or adjunct as a core-object argument.”
- 5) The term “core argument” is used for subject and object (especially the latter in this chapter) and “peripheral argument” for any NP other than those two.
- 6) In standard Fijian, some verbs can take an object whose semantic role is “location” or “goal.” In *dabeca na ibe* ‘sit on the mat,’ for example, *na ibe* ‘the mat’ is the object of the verb *dabeca* ‘sit on.’ These verbs, unlike prepositional verbs discussed here, can be said to be a transitive verb from both morphological and syntactic perspectives (Okamoto 2018).
- 7) Note that although the same sound, this is the different morpheme from the preposition *i*.

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