

There are no special clitics in Chácobo (Pano)

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Abstract: Panoan languages have a large class of clitics – bound morphemes positioned at the phrase level. Some Panoanists have posited that these clitics should be treated as “phrasal affixes”, roughly in Anderson’s (1992, *inter alia*) sense. This analysis implies that clitic phenomena in Panoan justify or motivate a special syntax or phrasal morphology, distinct from the word level morphology and “ordinary syntax” (Anderson 1992: 203) of the languages. I argue against this position in Chácobo, a southern Panoan language of the northern Bolivian Amazon. Bound phrasal morphemes are better analyzed as simple clitics (phonologically dependent function words), rather than as special clitics or instantiations of a phrase level morphology. In light of the arguments of this paper the status of clitics as realizations of phrase level morphology should be reassessed in all Panoan languages.

Keywords: Phrasal morphology, special clitics, Panoan languages, Chácobo

1 Introduction

Panoan languages are described as having a large class of clitics. For some Panoanists, some or all of these clitics are described or analyzed as “phrasal suffixes” (e.g. Valenzuela 2003; Zariquiey 2011; Valle 2017).¹ In at least one case, this conception of clitics in Panoan is influenced by Anderson’s theory of “phrasal morphology” or “special syntax” (Anderson 1988, 1992, 1993, 2005). In his grammar of Kashibo-Kakataibo, Zariquiey states “I assume as a working principle that, as Anderson (1992) has argued, the definitional feature of **enclitics** is that they are **phrasal suffixes...**” (Zariquiey 2011: 189, bold in original).

In this paper I argue against this conception of clitics in Chácobo, a southern Panoan language of the northern Bolivian Amazon. I argue for what I consider to be a more neutral position; that clitics in this language are better analyzed prosodically dependent function words or “simple clitics” (cf. Zwicky 1977). The data for this study are based on 16 months of fieldwork with the Chácobo conducted between 2011 and 2016, a data base of 17,000 sentences (approximately 17 hours) from naturalistic speech, and thousands of sentences from elicitation, some of which were designed to test and explore the syntagmatic distribution of clitics in this language. For expositional purposes, the data presented in this paper are all from elicitation.

Section 2 provides a brief overview of the criteria that could be used to distinguish between simple and special clitics. In Section 3, I assess Zariquiey’s (henceforth Z) (2011) “phrasal suffix” analysis of clitics in Chácobo, arguing that the concept is not empirically motivated in the language. A conclusion and summary of the thesis is provided in Section 4. It is outside the scope of this paper to assess Z’s (2011) claim concerning phrasal morphology in Kashibo-Kakataibo (henceforth KK). However, based on this study, and the fact that Z (2011) does not explicitly defend the phrasal morphology analysis against alternatives, I suggest that Z’s (2011) claim should be taken up again in KK and (re)assessed for other Panoan languages as well.

¹ This paper uses the following glosses; AGAIN ‘again’; COL ‘collective’; COM ‘comitative’; DEC ‘declarative’; DISTP ‘distant past’; ERG ‘ergative’; LIMIT ‘limitative’; P ‘past’; PL ‘plural’; PWD ‘prosodic word’; REP ‘reportative’; SPAT ‘spatial’; TR ‘transitive’. I wish to thank Francoise Rose, Daniel Valle, Patience Epps and Antoine Guillaume for their helpful comments on an earlier draft. I wish to express my gratitude towards by Chácobo consultants Caco Moreno Ortiz, Paë Yaquë Roca and Boca (Miguel) Chavez Ortiz.

2 Phrasal morphology or special syntax

Phrasal morphology refers to a component of grammar that is responsible for the position of “phrasal affixes” or “special clitics” which is distinct from word level morphology and syntax (Anderson 1988, 1992, 1993, 2005; Luís 2002, 2004). The theory is controversial partly because it is not always clear why purported cases of special clitics or phrasal affixes cannot be given a strictly syntactic or even word-level/lexical morphological analysis (Russell 1999; Bermúdez-Otero and Payne 2011).² It is well accepted that not all clitics are special clitics. They can be contrasted with **simple clitics**; phonologically bound function words whose distribution falls out of the syntactic component (for instance, Selkirk 1996; Booij 1996; Peperkamp 1996). In this paper I argue that clitics in Chácobo are not special clitics, but simple clitics. As such they are not instantiations of a phrase level morphology. The following discussion is focused on what criteria have been used to distinguish simple clitics from special clitics.

I divide the criteria into three types listed in (1) and provide a brief discussion of each in the following sections.

(1) Three classes of evidence for phrasal affix status

- Criterion 1. Anomalous syntactic position
- Criterion 2. Deviations from bi-uniqueness
- Criterion 3. Analogies with word-level morphotactic placement

A complete review of the theory of phrasal morphology is outside the scope of this paper. The following discussion is only meant to illustrate the basic types of arguments that have been made in order to justify a phrasal morphology treatment. It should not be considered an exhaustive review of the criteria (Anderson 1988, 1992, 1993, 2005; Luís 2002, 2004 for defense and application; Bermúdez-Otero and Payne 2011; Spencer and Luís 2012 for discussion and criticism).

2.1 Anomalous syntactic position

The first criterion for special clitic status is that the clitic should have an anomalous syntactic position. The distribution of a special clitic diverges in some way from other syntactic units or constituents. To illustrate what is meant by this, we can compare English to Spanish object pronouns.

- (2) a. John eats the ducks
b. John eats’em
- (3) a. Juan come **los patos**
‘John eats the ducks’
b. Juan **los** come
‘John eats’em’

In English the object pronoun *’em* is bound, but it shares its distribution with full NPs in English as in *the ducks*. It can be considered a simple clitic which integrates phonologically with *eats*. In Spanish, the object pronoun *los*, however, occurs in a distinct position compared to its corresponding full NP form *los patos* ‘the ducks’. The distribution of object pronouns in Spanish is “anomalous” in the sense that the rules that motivate the position of phrasal constituents (full object NPs) cannot straightforwardly account for their distribution. On the other hand, clitics whose distribution completely overlap with that of other independently

² In the following discussion I assume that a “special clitic” is synonymous with a “phrasal affix”.

motivated syntactic positions (e.g. pronominal clitics in English) can be understood as prosodically deficient elements whose position is already accounted for by the regular syntactic rules of the language (cf. Selkirk 1996).

An aspect of the syntactic argument that is not often discussed in detail is what it means for normal syntax to be independently motivated. One might ask why the fact that bound object pronouns occur in preverbal position in Spanish (and other Romance languages) does not justify treating this position as part of the syntax, or put another way, justify an expansion of the phrase structure component of the grammar such that it can account for the distribution of such morphemes. In works on phrasal morphology it is not clear how one is to establish the regular (non-anomalous) syntax of a language. Conversely, very little attention has been given to providing an explicit definition of an “anomalous syntactic distribution” and what it means for a syntactic position to be independently motivated.

In order to assess this question in Chácobo, I define an anomalous distribution as one which **intersects** but does not completely overlap with that of open class lexemes and their syntactic projections (phrases) that have a comparable grammatical function. An intersecting distribution refers to one where a clitic and a functionally comparable XP have the same distribution in one syntactic context. The distribution of bound object pronouns in Spanish and other Romance languages is anomalous because it intersects with full noun phrases that have an object or indirect object function in the clause. This can be discerned from comparing (3) with (4).

- (4) a. Juan quiere comer **los patos**
‘John wants to eat ducks.’
- b. Juan quiere comer**los**
‘John wants to eat’em.’

On the other hand, a distribution where there is complete overlap in all syntactic contexts (as in English pronominals) is symptomatic of simple clitic status. More explicitly if the syntactic distributions of a given clitic are a subset of the distributions of a functionally equivalent lexical projection then this clitic can be regarded as a simple clitic.³ I will refer to this type of distribution as **overlapping** for short. Such a distribution is non-anomalous because it requires no expansion of the phrase structure rules of a language for a purely syntactic account.

If a particular clitic cannot be shown to share any distributional overlap with a free lexeme and its projections that has a comparable function I will refer to its distribution as **disjoint**. An example of a morpheme with a disjoint distribution would be English auxiliaries. Auxiliaries are function words that are not an open class. However, such morphemes do not clearly share a distribution with elements which have a comparable function (verbs) in the way that bound pronouns do with full NPs. For most syntacticians the existence of auxiliaries should be accounted for with syntactic (and usually functional) projections above the VP (e.g. Ouhalla 1999). This is why the *partial* distributional overlap of full NPs and pronominal clitics in Spanish is crucial in demonstrating the anomalous distribution of the latter.⁴

In this paper I assume that neither overlapping nor disjoint distributions provide evidence that a given clitic is a phrasal affix. Positing that clitics with disjoint distributions display a special distribution begs the question as to why such morphemes are not just considered their

³ It is not required that the distributions of this clitic be a proper subset of the distributions of the lexical item. The clitic can be ruled out of certain contexts on phonological grounds; for example where there is no prosodic constituent that the clitic can integrate into.

⁴ Co-occurrence restrictions are also important; whether the pronoun satisfies the valence of the verb in the same way a full NP does. However, in this case there is well-known variation between Spanish dialects (e.g. *Juan los*) *come los patos*).

own category, thus justifying a position in the syntactic structure or an expansion of the phrase structural component of the language.

2.2 Deviations from bi-uniqueness

A bi-unique relation refers to a one-to-one mapping between a formative and a meaning (Matthews 1972). For many morphologists, *deviations* from bi-uniqueness are an important, if not the most important, criteria that distinguish morphological patterns from syntactic ones (Anderson 1992; Aronoff 1994; Stump 2001). In many approaches, this property of morphological patterning is thought to justify treating morphology as *realizational* rather than combinatorial (see Blevins 2006 for a review), distinguishing it from the syntax proper (cf. Haspelmath 2011 for a critique of this argument).

For Anderson (1992, 1993, 2005) the realizational aspect of morphology extends to its phrase-level instantiation, i.e. to special clitics or phrasal affixes. Special clitics should, therefore, demonstrate deviations from bi-uniqueness, or put another way, if a given clitic displays deviations from bi-uniqueness, this provides evidence that this form is a phrasal affix.

Clitics, and particularly clitic clusters, often display deviations from bi-uniqueness and for some authors this justifies a morphological account (Luís 2002, 2004). To illustrate such a deviation consider the alternation between *le* and *se* for dative indirect objects in Spanish.

- (5) a. Juan **le** dió la naranja
 ‘John gave him/her an orange.’
 b. Juan **se** lo dió
 ‘John gave him/her it.’

When an object pronominal precedes the dative object it is realized as *se* and otherwise it is realized as *le*. Since this constitutes a deviation from bi-uniqueness that cannot be accounted for using productive morphophonological rules, it is often argued that pronominal clusters in Romance languages are better understood as realizations of morphosyntactic features rather than as syntactic combinations of words (cf. Luís 2002, 2004 for European Portuguese).

2.3 Analogies with word-level morphotactic placement

Based on the work of Klavans (1980, 1983, 1985), Anderson (1992) argues that the generalizations one can draw from the placement of special clitics have more in common with rules of word-formation than they do with syntax. From this perspective, rules that position special clitics are analogous to affixation rules, but they apply to phrasal categories (such as head of V and edge of VP) rather than morphological ones (such as root or stem).

Anderson (1992) extends the analogy between special clitic placement and word-level morphotactics to the distinction between inflection and derivation. Roughly, derivation refers to meaning-bearing modifications and inflection refers to contextual modifications that encode dependencies. In Anderson’s (1992) view, derivation precedes inflection and we should expect to find that derivational formatives occur “inside” of inflectional ones (see also Anderson 1985). Anderson (1992) notes that this generalization seems to extend to clitic clusters as well, as in the following example from Ngiyambaa (cited in Klavans 1983; glosses are original).

- (6) wara:y =gara =dhu =na
 bad (STEM) “from sensory evidence” “1st NOM” “3rd ABS”
 “I have apparently (made) it bad.”

In this case the meaning bearing (i.e. “derivational”) element =gara occurs inside the dependency encoding formatives (contextual inflection) =dhu and =na (Anderson 1992: 219).

Spencer and Luís (2012: 228–232) critique Anderson’s (1992, 2005) distinction between derivational and inflectional special clitics arguing that the distinction is difficult or impossible to make in many cases.⁵ In this paper, in order to assess the phrasal morphology thesis in Chácobo, I attempt to apply the criteria Z (2011) uses to distinguish between derivational and inflectional morphology. Z (2011: 186) mentions the following criteria.

- (7) i. **Obligatoriness:** Inflectional morphology is obligatory, whereas derivational morphology is not.
- ii. **Ordering:** Inflectional morphemes occur in a fixed order whereas derivational morphemes can be variably ordered.
- iii. **Mutual Exclusivity:** Inflectional morphemes occur in mutually exclusive slots whereas derivational morphemes can be stacked.

Following Anderson’s (1992) model, if a distinction between derivation and inflection can be made and we find that inflectional special clitics occur outside of derivational special clitics, then this provides evidence that such morphemes are positioned with respect to phrasal morphology.

3 Where’s phrasal morphology in Chácobo?

In this section I assess whether the clitic phenomena in Chácobo motivate a phrasal morphology analysis in this language. Section **Error! Reference source not found.** describes number and case clitics; Section 3.2 considers adverbial clitics; and Section 3.3 considers modal, evidential, tense and clause-type/rank enclitics. For each functionally defined class of clitic, I assess whether there is any evidence that these clitics display ‘special syntax’ with reference to the criteria presented in Section 2.

Before moving on, I provide an overview of the descriptive metalanguage and terminological framework used in the analysis of Chácobo structure. I adopt the following definitions for the structural categories that are used in this paper (see Tallman *in progress* for a defense with more details).

- (8) i. **Affix:** A morpheme that is bound and contiguous to a lexical root which can only be interrupted from the root by other affixes.
- ii. **Clitic:** A morpheme that is bound and non-contiguous with a lexical root with which it can be seen as a semantic or syntactic dependent.⁶
- iii. **Bound:** A morpheme is bound if it fails the minimum free form test, otherwise it is free.
- iv. **Stem:** A combination of lexical root and its affixes.
- v. **Extended phrase:** The combination of a lexical head and all of its syntactic or semantic dependents (i.e. a phrase in the dependency grammar sense).

⁵ In this vein it should be noted that in Valle’s (*in progress*) description of the San Alejandro dialect of Kashibo-Kakataibo, the distinction between derivational and inflectional morphology is rejected as unmotivated (or “methodologically opportunistic”, cf. Croft 2003), which poses a potentially terminal problem for Z’s (2011) claim that clitic phenomena should be accounted for using phrasal morphology.

⁶ The concept of clitic defined above technically also includes particles (function words that are full prosodic words) that fail minimum free form tests because they require a syntactic head. This is actually a desirable consequence, since for Anderson (1992, 2005) particles are considered a subcategory of special clitic. One might question why the definition of clitics above does not include some notion of “phonological deficiency”. Note Anderson (1992, 2005) argues that issues of prosodic dependence and special clitic status can be partially separated. While, most special clitics are also prosodically dependent (i.e. most are ‘simple clitics’ or ‘phonological clitics’ as well), since particles can also be special clitics and simple clitics can be ‘syntactically normal’ function words, the question of prosodic dependence can be separated from the question of special syntactic status.

vi. Phrasal constituent: A subpart of an extended phrase that passes more than one constituency test (e.g. extraction or coordination).

In order to assess the morphotactic argument (criterion 3 above) I also attempt to adopt a descriptive metalanguage that is neutral between word-level and phrase-level syntagmatic phenomena. The goal of this metalanguage is to allow us to compare phenomena at different layers (e.g. stem vs. phrase) of structure without obscuring the potential similarities or differences. The descriptive metalanguage is summarized below.

- (9) **i. Template:** A template contains a number of positions, each with corresponding numbers that refer to their relative order within the context of the template.
ii. Position: Each position occurs in a specific template. Each position in a template has a number that is used to account for relative ordering within its template. Each position is either a slot or a zone.
iii. Slot: A type of position where only one element can occur at time. If elements are listed as potentially occupying a slot, they are mutually exclusive.
iv. Zone: A type of position where more than one element can occur and the elements can be variably ordered.
v. Element: A morpheme, word, phrase or sentence.

All layers of structure (stem, phrasal constituent, extended phrase) are described in terms of templates. Either singular (bound or non-bound) morphemes or full phrases can occupy positions, and we can discuss the variable ordering of affixes in the same way that we discuss the variable ordering of clitics and even syntactic phrases with reference to their occurrence in zones.

3.1 Noun phrase enclitics: case and number

This section discusses noun phrase (NP) enclitics in Chácobo. First I provide a description of the NP in Chácobo. The NP consists of two layers. The noun phrase constituent (Figure 1) layer consists of elements that cannot be extracted to the initial position of the clause and which are always contiguous. The extended noun phrase (Figure 2) consists of the noun phrase constituent and all of its syntactic dependents. The extended noun phrase could be considered a postpositional phrase for adjunct NPs, depending on whether non-core argument case morphemes/postpositions are considered grammatical markers of dependency or heads of a postpositional phrase. Our main concern in this section are the number and case morphemes which occur in positions 5 and 6 respectively in the extended noun phrase. The plural/quantifier morpheme =*bo* (realized as =*ba'* when the NP is ergative) occurs in position 5 in the extended noun phrase.

POSITION	1	2	3	4
STRUCTURE	SLOT	SLOT	SLOT	SLOT
ELEMENT(S)	NP GENITIVE	MODIFYING NOUN	HEAD NOUN	ADJECTIVE

Figure 1 Noun phrase constituent

POSITION	1	2	3	4	5	6	7
STRUCTURE	ZONE	SLOT	ZONE	SLOT	SLOT	SLOT	SLOT
ELEMENT(S)	NUMERALS RELATIVECLAUS QUANTIFIERS OR NUMERALS	NP CONSTITUENT POSSESSIVE NP	NUMERALS OR RELATIVE CLAUSE	COORDINATING QUANTIFIER <i>i?</i>	PLURAL = <i>bo</i> , QUANTIFIERS OR NUMERALS	CASE OR POSTPOSITION	PARTICIPANT AGREEMENT

Figure 2 Extended noun phrase / postpositional phrase

In Chácobo, =*bo* occupies a functional space between plural and quantifier. The morpheme is ‘facultative’ (in Corbett’s 2004) sense on non-humans where it encodes a large collective (e.g. *ina =bo* ‘many dogs’) as opposed to plural. For most speakers, =*bo* occurs obligatorily on NPs that denote more than one human entity.

The morpheme =*bo* occurs in position 5, where it is mutually exclusive with quantifiers. Both =*bo* and a quantifier can occur together if the quantifier occurs in position 1 of the extended NP. This is shown in (10).

- (10) a. *yoşa wistima =bo
 woman many =PL
 ‘Many women.’
- b. wistima yoşa =bo
 many woman =PL
 ‘Many women.’
- c. yoşa =bo
 woman =PL
 ‘(The) women’

Unlike free quantifiers like *wistima* ‘many’, =*bo* cannot occur in position 1 even when no quantifier is in this position as demonstrated in (11).

- (11) a. ina wistima/hatiro?a/=bo
 dog many/all/=COL
 ‘Many/all/group of dogs.’
- b. wistima/hatiro?a/*=bo ínaka
 many/all/*=COL dog
 ‘Many/all/group of dogs.’

The morpheme =*bo* displays an overlapping distribution with quantifiers with which it partially shares a semantic function. However, its distribution is not intersecting in the sense defined in Section 2.1. First, its distributions across all syntactic contexts are just a subset of the distributions of other quantifiers, rather than an intersecting distribution; it occurs in no positions that quantifiers are not permitted to occur in. Its failure to occur in position 1 of the extended NP could be attributed to the fact that it is a simple enclitic that must integrate into a prosodic word within its phonological phrase). In position 1 of the NP it would have no host to integrate with and thus could not surface for strictly phonological reasons (cf. Halpern 1998 on this argument more generally). Thus, there is no evidence that =*bo* displays a “syntactically anomalous” distribution. Its distributional asymmetries with quantifiers are likely easily accounted for using prosodic phonology.

However, the morphophonology of the plural morpheme provides evidence for special clitic status. When plural marked NP is ergative =*bo* surfaces as =*bá* as in (12).

- (12) *ína =ba hóni tíṣa=ki*
 dog =PL:ERG man bite=DEC:P
 ‘The dogs bit the man.’

Since *o~a* alternation is not a general morphophonological rule in Chácobo, the alternation between =*bo* and =*bá* provides evidence for special clitic status on the grounds that the morpheme displays a deviation from bi-uniqueness. Thus the first two criteria provide contradictory results for this morpheme (more on this below).

Case enclitics can be compared with postpositions with which they share the function of marking a noun phrase as a dependent of the verb phrase or another noun phrase. I have not found any distributional difference between NP enclitics and full postpositions in Chácobo that cannot be accounted for on phonological grounds.

For instance, the postposition *maná* ‘above’ can occur in position 6 of the extended NP or occur by itself functioning as a free adverb. This is shown in (13).

- (13) (*hiwi*) *maná biisi=ki*
 (tree) up/on.top jump=DEC:P
 ‘He jumped on top the tree / up.’

The case enclitic =*no* occurs in the same position in the NP, but requires an overt head to be realized. In (14a) =*no* incorporates into the prosodic word of *hiwi* ‘tree’. However, unlike *maná* in (13), =*no* cannot function as a free adverb as in (14b).⁷

- (14) a. *bíisi=ki hiwí=no*
 jump=DEC:P tree=SPAT
 ‘He jumped by the tree.’
 b. **biisi=ki =no*
 jump=DEC:P =SPAT
 ‘He jumped by it.’

However, here there is no need for a special clitic explanation. The case morpheme’s failure to occur as a free form can be attributed to its status as a phonological enclitic. Phonological evidence suggests that =*no* prosodically incorporates into a left-adjacent noun phrase element. This accounts for the noun *hiwi* shifting its high tone to the penultimate position in (14a). Case enclitics do not display any obvious deviations from bi-uniqueness, and thus there is no motivation for treating such forms as phrasal affixes following the first two criteria.

It is debatable whether the argument based on analogy with word-level morphotactics (Criterion 3) can even be assessed with NP enclitics because there are no obvious candidates for derivational clitic status in the NP. The semantic modifiers of the noun phrase are free morphemes (quantifiers, adjectives, demonstratives). To conclude, based on criteria 1 and 2, case enclitics are not special clitics. Criteria 1 and 2 conflict for the plural morpheme =*bo~bá*,

⁷ The spatial/instrumental =*no* has no segmental realization when the postpositional phrase occurs prior to the position 11 (clause-type/rank enclitic). Without its segmental realization it still conditions the suprasegmental adjustment (high tone to the final syllable) of the full noun. I have provided an example of the postpositional =*no* phrase *after* the position 11 enclitic, where it is always realized segmentally as =*no* for expositional purposes.

and the third criterion 3 cannot be assessed in the NP because a division between derivational and inflectional clitics cannot be motivated.

3.2 Adverbial enclitics

Chácobo contains a number of morphemes that express adverbial semantics that are a highly heterogeneous in terms of their syntagmatic distribution. However, there are some distributional asymmetries between free and bound adverbial morphemes which require attention in the context of this paper. We should consider whether the bound adverbials (i.e. the adverbial clitics following the definitions in this paper) display an anomalous syntactic distribution, in the sense defined in this paper, with respect to the free (unbound) adverbs.

Most (approximately 90%) adverbial clitics incorporate into adjacent prosodic words to their left. Unless the negative morpheme *yáma* is counted, no free adverbs incorporate. For instance, *pífa* ‘barely’ is free, and it does not incorporate prosodically into adjacent verb stems. *=tikin* ‘again, continuously’ is bound and phonologically encliticizes to an adjacent verb root. The difference can be observed from the examples in (15). The lexical root *ka* ‘go’ lengthens in order to meet a bimoraic minimum word requirement (cf. Tallman 2014), when it is modified by a following free adverbial as in (15). However, the stem *ka* ‘go’ does not lengthen in (15) because *=tikin* encliticizes into it, satisfying the minimum bimoraicity requirement. Furthermore, the free adverb *pífa* is an independent prosodic word with respect to stress and high tone assignment.

- (15) a. (káa)_{Pwd} (pífa=ki)_{Pwd}
 go briefly=DEC:P
 ‘He barely went (he didn’t move very far).’
- b. (ka=tikín=ki)_{Pwd}
 go=AGAIN=DEC:P
 ‘He went again.’

In the examples in (15), the adverbial enclitic and the free adverb occur in the same syntactic position. However, the distributional relationship between bound adverbials and free adverbs is not completely overlapping. For instance, bound adverbials cannot occur after the tense morpheme *=ki* ‘declarative past tense’, while free adverbs can.

- (16) ká=ki pífa/*=tikin
 go=DEC:P briefly/*=AGAIN
 ‘He barely went’ / ‘He went again’

However, based on the distribution of adverbial morphemes across the verb phrase and the clause, I argue below that the distribution of free and bound adverbials does not support an analysis whereby the bound adverbials should be treated as phrasal affixes. This argument requires a brief introduction to the clause structure of Chácobo.

The clause or extended verb phrase consists of the verb root and all of its semantic or syntactic dependents; its template is given in **Error! Reference source not found.** The verb phrasal (VP) constituent consists of the verb stem, the object NP and some function words (associated motion, modality, aspectual, adverbial); it is depicted in Figure 4. The VP constituent can occur in two positions in the clause; the pragmatically neutral position 6 and the pragmatically marked position 2. There are 5 positions for adverbials (both bound clitics and free adverbials) in the Chácobo verb phrase constituent and the clause. Free adverbs and adverbial enclitics occur in positions 2, 7 and 13 in the extended verb phrase or clause in positions 1 and 3 of the VP constituent.

POSITION	1	2	3	4	5	6	7	8	9	10	11	12	13
STRUCTURE	SLOT	SLOT	SLOT	SLOT	ZONE	SLOT	SLOT	SLOT	SLOT	SLOT	SLOT	SLOT	ZONE
FUNCTION WORD, DEPENDENT CLAUSE, DEPENDENT NP/PP	NP/PP/S/A/O/OBLIQUE/LOCATIVE CONJUNCTION	NP/PP:S/A/O/OBLIQUE/LOCATIVE CLAUSE: ADVERBIAL, <u>ADVERB</u> CONJUNCTION	SLOT <i>tsi</i> P2	SLOT EVIDENTIALITY/MODALITY = <i>ni</i> INTERROGATIVE NON-VERBAL PREDICATION	NP:A/S/O PP:OBLIQUE <u>ADVERB</u>	SLOT VERB PHRASE CONSTITUENT	SLOT = <i>wa</i> TRANS	SLOT ASPECT, <u>ADVERB</u> , ASSOCIATED MOTION, MODALITY	SLOT = <i>kan</i> (DISCONTINUOUS) PRONOMINAL PLURAL	SLOT TEMPORAL DISTANCE	SLOT CLAUSE-TYPE/RANK (ASSOCIATED MOTION, TENSE, ASPECT, MODALITY, EVIDENTIALITY)	SLOT NP: (A/S) EVIDENTIALITY/MODALITY, = <i>kato</i> / <i>=na</i> SUBORDINATOR	ZONE NP/PP: OBJ /OBLIQUE/LOCATIVE), CLAUSE: ADVERBIAL OR (DISCONTINUOUS) RELATIVE <u>ADVERB</u>

Figure 3 Clause or extended verb

POSITION	1	2	3
STRUCTURE	ZONE	SLOT	ZONE
ELEMENTS	ADVERB NP: OBJECT (O)	VERB STEM	ASPECT, ADVERBIAL, ASSOCIATED MOTION, MODALITY

Figure 3 Verb phrasal constituent

Adverbial morphemes vary in terms of their distributional freedom in the sense that some adverbial morphemes can occupy more positions across the VP constituent and the clause than others. One of the most distributionally free morphemes is =*tikin* ‘again, continuously’, which can occur in almost all of the syntactic positions available to adverbials. I will use examples of this morpheme in order to illustrate the syntactic positions under consideration. =*tikin* ‘again, continuously’ can appear in position 2 of the clause, in position 3 of the verb phrase constituent, in position 3 of the verb constituent and in position 8 of the clause. =*tikin* ‘again’ cannot appear in position 13 of the clause, a position which is available to most free adverbs. This is depicted in (17).⁸

- (17) hakiriki<=**tikin**> yoṣa<=**tikin**> tsaya<=**tikin**>
 then<=**AGAIN**> woman<=**AGAIN**> see<=**AGAIN**>
- honi=’ =wa<=**tikin**>=ki<*=**tikin**>
 man=ERG =TR<=**AGAIN**>=DEC:P<*=**AGAIN**>
 ‘The man saw the woman again.’

Adverbial clitics do not all pattern the same with respect to their syntactic distribution. For instance, the limitative =*roʔa* cannot occur in position 8 of the clause as is shown in (18).

- (18) yoṣa<=**roʔa**> tsaya<=**roʔa**> honi=’ =wa<*=**roʔa**>=ki
 woman<=**LIMIT**> see<=**LIMIT**> man=ERG=TR<*=**LIMIT**>=DEC:PST
 ‘The man was only watching the woman.’

Likewise, free adverbs do not all pattern in the same way. For instance the free adverb *ifima* cannot occur in position 3 of the verb phrase constituent, unlike *pifa* ‘briefly, a little’ (see (15)).

I compared what I judged to be the most frequent 13 adverbial enclitics and 13 free adverbs in order to determine whether there were any distributional asymmetries between them.⁹ I asked two speakers for grammaticality judgements placing the adverbials in each of the positions listed in (17). Table 1 lists the number of bound and free morphemes that were accepted by clause position.

While there are clearly distributional asymmetries, the data do not support the idea that bound adverbials display any special distribution compared to free adverbials. Rather what the overview presented below shows is that certain syntactic positions are statistically associated

⁸ The angled notation <word> indicates that the word can appear in this position, but that only one of these elements can appear per sentence.

⁹ The adverbials that were tested are as follows; =*roʔa* ‘limitative’; =*pari* ‘first’; =*pao* ‘habitual/durative’; =*wini* ‘first/before’; =*tikin* ‘again’; =*riá* ‘intensive/realis’; =*baina* ‘all day’; =*fina* ‘all day’; =*fari* ‘tomorrow’; =*yo* ‘all/completive’; =*tapi* ‘punctual’; =*kia* ‘counterfactual’; =*kas* ‘desiderative’; (=)*kará* ‘dubitative’; (=)*wisti* ‘one’; (=)*rabi* ‘two’; (=)*yama*; *pifa* ‘a little, slightly’; *naama* ‘already’; *haʔari* ‘again’; *ifima* ‘slowly’; *miri* ‘quickly’; (=)*kiá* ‘reportative’; *siri* ‘long ago, for a long time’; *biró* ‘in view’; *wistima* ‘multiple times’.

with bound adverbials (e.g. position 3 in the VP constituent), whereas other clause positions are statistically associated with free morphemes (e.g. position 1 of the clause).

Table 1 Survey of bound and free adverbial morphemes according to distributional possibilities; 13 bound and 13 free.

POSITION	BOUND	FREE
Position 2 of clause	7	13 (all)
Position 1 of VP constituent	6	13 (all)
Position 3 of VP constituent	13 (all)	6
Position 7 of clause	10	1
Position 13 of clause	0	9

I conclude that the simplest explanation is that the bound adverbial morphemes are simple clitics, and that syntactic position in the clause are only probabilistically associated with boundedness or freedom.¹⁰ Adverbial clitics display an overlapping distribution with free adverbs but not one that suggests they are positioned with respect to a separate component of grammar. It is impossible to assess whether adverbials display an anomalous syntactic distribution, because free adverbs do not clearly form a coherent word class with which they can be compared, at least with respect to their syntactic distribution.

There are no deviations from bi-uniqueness for adverbial enclitics in Chácobo. There is thus no evidence based on criteria 1 and 2 that adverbials should be treated as phrasal affixes. In an Andersonian perspective adverbial enclitics would be considered derivational and thus must precede inflectional enclitics in some sense. An assessment of whether there is an argument for special clitic status based on an analogy with word-level morphotactics is taken up in the following section which discusses inflectional categories.

3.3 Evidential, modality, tense and clause-type/rank clitics

In Chácobo evidentiality, modality, and clause-type are all expressed by enclitics. There are approximately 8 enclitics dedicated to evidential and modal modifications at an *illocutionary* level. These occur in position 4 and 11 of the clause.

- (19) a. kiríko =yá tʃani=yamít=ki =kiá tani
 foreigner=COM speak=DISTP=DEC:P =REP tani
- b. kiríko =yá =kiá tʃani=yamít=ki táni
 foreigner =COM =REP speak=DISTP=DEC:P Tani
 ‘It is said that Tani spoke with the foreigner (a few months ago)’

Not all enclitics can occur in position 4 and position 11. For instance the direct evidence enclitic =rá cannot occur in position 4. Some modal enclitics such as *kará* ‘personal belief’ cannot occur in position 11. For evidential and modal categories, there is no obvious lexical class with which to compare them in order to assess whether they display an anomalous syntactic distribution. Thus their status as syntactically anomalous cannot be assessed unless some concept of normal syntax is imposed *a priori*.

Tense and temporal distance morphemes occur in position 9 and 10 respectively (underlined in (19)); see also Tallman and Stout *this volume*). Morphemes in position 10 also indicate clause type (declarative, imperative, interrogative). The only functional enclitic that is obligatory is the position 11 morpheme, and it is only obligatory in verbal predicate

¹⁰ In fact, if anything positing a level of phrasal morphology would just obscure the correlations between wordhood properties.

constructions. The vast majority of clause-typing morphemes also encode tense (with some exceptions, Tallman *in progress*).

In order to assess whether these morphemes have normal or anomalous syntax, one could compare their distribution with temporal adverbs with which they arguably have a similar function semantically. Here, there is absolutely no distributional overlap at all. For instance the temporal adverb *naama* ‘already’ occurs in position 2 and 13. Thus there is no evidence that temporal remoteness or tense display an intersecting distribution with free temporal adverbs.

Enclitics that express categories of modality, evidentiality, tense, temporal distance and clause-type do not display any clear deviations from bi-uniqueness either. For instance, the reportative enclitic =*kiá* encodes reportative regardless of position. Generally, these enclitics do not display any morphophonological idiosyncrasies that would suggest they should be given a morphological treatment. The first two criteria (anomalous syntactic distribution; deviations from bi-uniqueness) provide no evidence that the evidential, modal, tense or clause-type/rank morphemes are positioned with respect to phrasal morphology.

In order to assess the morphotactic argument one has to posit some motivated division between derivational and inflectional enclitics. Using the criteria listed in Z (2011), we find that the verbal enclitics can be organized on a continuum from most derivation-like (the adverbial enclitics) to the most inflection-like (clause-typing/tense) (cf. Tallman *in progress*).

Table 2 Verbal categories expressed by clitics and the derivational-inflectional criteria

FUNCTIONAL CATEGORY	OBLIGATORINESS	FIXED	MUTUAL	
		ORDERING	EXCLUSIVITY	
Adverbial	x	x	x	DERIVATIONAL
Evidential/Modal	x	x	✓	SOMEWHAT DERIVATIONAL
Temporal Distance	x	✓	✓	SOMEWHAT INFLECTIONAL
Clause-type&rank/Tense	✓	✓	✓	INFLECTIONAL

The most straightforward way of assessing the morphotactic analogy criterion would be to compare the position of clause-type&rank/tense enclitics (position 11 in Figure 3) to adverbial enclitics, since we could analyze evidential, modal and temporal distance clitics either way in terms of the inflectional–derivational distinction due to their lack of consistency with respect to the criteria. If we posit that the enclitic classes listed in Table 2 are positioned with respect to the verb stem we note that on the rightside of the verb stem, the derivational (adverbial) clitics must appear between the verb stem and the inflectional (clause-type&rank/tense) clitics; bound adverbials cannot appear in position 13 (see Table 1). Thus, on the right-side of the verb stem, we find weak evidence for special clitic status based on an analogy with word-level morphotactics. However, the problem with this analysis is that many (perhaps most) adverbial enclitics can occur on the left side of the verb stem in position 2 of the clause as in =*tikin* ‘again’.

(20) kiríko =yá=**tikín** =kiá **tjáni**=yamít=**ki** tani
 foreigner =COM=**AGAIN** =REP **speak**=DISTP=**DEC:P** Tani
 ‘It is said that Tani spoke with the foreigner again.’

Taking into account the fact that there is no strong evidence that adverbial enclitics are special clitics based on criteria 1 and 2 to begin with, the argument based on analogy with word-level morphotactics is therefore weak in Chácobo.

4 General conclusions

In this paper I have argued that the evidence for phrasal morphology in Chácobo is weak. A summary of the arguments is presented in this paper is provided in Table 3. There is not a single clitic in the language that clearly has an anomalous distribution. Across the board the only clitic

that displays a clear deviation from bi-uniqueness is the plural/collective clitic =*bo*~=*bá*. Few arguments can be made based on analogies with morphotactic placement. The only potential case is based on a comparison with adverbial and clause-type&rank/tense enclitics. This argument, although suggestive, is weak because many adverbial enclitics can occur on either side of the verb stem. It is possible that the number enclitic is a special clitic based on the fact that it clearly displays a deviation from bi-uniqueness. However, the other two criteria do not provide evidence for special clitic status.

Table 3 Summary of arguments in favor and against phrasal affix treatment of clitics in Chácobo

	ANOMALOUS SYNTACTIC DISTRIBUTION	DEVIATIONS FROM BIUNIQUENESS	ANALOGIES WITH MORPHOTACTIC PLACEMENT
Number	× (overlapping)	✓	×
Case	× (overlapping)	×	×
Participant Agreement	× (disjoint)	×	×
Adverbial	× (overlapping)	×	× (weak)
Evidential/Modal	× (disjoint)	×	×
Temporal Distance	× (disjoint)	×	×
Clause-type&rank/Tense	× (disjoint)	×	× (weak)

As noted in the introduction Z (2011) does not explicitly defend his analytic move to treat all clitics as instantiations of phrase level morphology. Rather, his discussion implies that he adopts this position *a priori*. He states “I assume as a working principle that, as Anderson (1992) has argued, the definitional feature of **enclitics** is that they are **phrasal suffixes...**” (Z 2011: 189, bold in original). There are two problems with this position. In the first place, as I have shown in this paper, there is little empirical motivation for a phrasal morphology component in Chácobo, suggesting that, at the very least, the question should be treated empirically in genetically related languages (Loos 1999; Fleck 2013 for overviews of the family). Secondly, even if phrasal affixes are admitted in the description, there is no reason to assume that *all* clitics are instantiations of phrasal morphology. It is entirely consistent with Anderson’s (1992, 2005) approach to phrasal morphology to posit that some clitics are special clitics and others are not. For instance, if the evidence from deviations from bi-uniqueness is considered decisive, then =*bo*~=*bá* alone could be considered a phrasal suffix.

A reasonable reaction to Z’s “working principle” in light of the fact that no arguments are presented in favor of this analysis is that he is simply stating that concepts of “phrasal morphology” present a useful metalanguage for describing clitics in KK.¹¹ However, it’s clear that Anderson (1992, 2005) intended the theory of phrasal morphology to be a serious empirical claim about the structure of language. If this theory is on the right track it would have important consequences for our understanding of the structure of language. For instance, the phrasal morphology theory grammatical structure implies that clause structure is formally simpler than what is suggested by most syntactic theories (Anderson 2005: 287). Evidence from a single language, such as Chácobo, cannot disprove the theory of phrasal morphology since it is a typological claim about the structure of languages in general. But Panoan languages are rich in clitic phenomena and the clitics across these languages display some interesting differences (Tallman 2015). Panoan languages could provide an important testing ground for theories of

¹¹ Indeed, Z (2011) does not explicitly defend or stipulate any other assumptions of Anderson’s approach (e.g. lexicalism, realizational morphology, generative syntax), making the adoption of “phrasal morphology” out of place with the rest of the grammar.

clitics. It is, therefore, possible that some Panoan languages do provide evidence for the theory of phrasal morphology, but the question should be treated empirically.

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