Different kinds of second-position clitics in Caquinte

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Abstract: This paper overviews two kinds of second position (2P) clitics in Ca-quinte (Kampa Arawak: Peru). One sort are nominal 2P clitics which appear in nominal domains, the other are at least 25 clausal 2P clitics which appear in clausal domains. Both may appear between words which otherwise form a syntactic constituent, e.g., [Adj=CL N] in the case of nominal clitics and [Dem=CL N] in the case of clausal clitics. We claim that all Caquinte clitics are prosodically deficient, as evidenced by stress shifts on the stem, and capture this via subcategorization frames. Second, we argue that the [X]=CL constituent is formed via a post-syntactic operation and not through syntactic movement, supported by the fact that clitics can break up syntactic constituents. Third, we argue that clausal clitics are merged at different points on the clausal spine, which accounts for the distribution of two different subtypes of clausal clitics.

Keywords: second-position clitics, syntax-phonology interface, prosodic subcategorization, syntactic constituency, phonological words, Arawak

1 Introduction

The goals of this paper are to describe the basic patterns of second-position clitics in Caquinte (Arawak, Peru) and present an account of their distribution.[1] Clitics in Caquinte can be understood as a unique morphological category because they are less selective of their host relative to affixes and because they follow all suffixes. We classify these clitics as second-position (hereafter '2P') clitics — also known as Wackernagel clitics — because they never appear in clause- or phrase-initial position nor in third or fourth position, etc., with some exceptions, which we describe below. All clitics in Caquinte are 2P clitics.

A substantial body of literature explores crosslinguistic patterns of 2P clitics along a number of theoretical axes.[2] We schematize a generic structure below: [X] stands for the host of the 2P clitic, which is in initial position (1); =CL is the clitic (2); [Y] constitutes whatever follows the clitic (3); and $||_{\text{DOMAIN}}$ refers to the domain within which positionhood is assessed.

[2] These include, among others: Anderson (1993, 2005, 2008, 2011); Black (1992); Bošković (2001); Chung (2003); Fischer (2003); Halpern (1995); Halpern and Zwicky (1996); Kaisse (1982); Klavans (1985); Legate (2008); Mussafia (1898); Noyer (2001); Pancheva (2005); Schachter (1973); Schachter and Otanes (1972); Spencer and Luís (2012); Tobler (1875); Wackernagel (1892).

$$\begin{array}{cccc} & 1 & 2 & 3 \\ || & [\text{X}] & =\text{CL} & [\text{Y}] \quad ... \quad ||_{\text{DOMAIN}} \end{array}$$

The components of this structure can be further scrutinized. What sort of constituent is [X]? As discussed in Spencer and Luís (2012), is it a phonological constituent (e.g., a foot, prosodic word, or phonological phrase) or syntactic constituent (e.g., a grammatical word X° or syntactic phrase XP)? And, following cliticization, what sort of constituent is [X]=CL? Furthermore, what sort of constituency holds between [X] and [Y] before and after cliticization?

Regarding the derivation, where are [X], [Y], and =CL merged? And by which principles are they positioned, resulting in surface 2P, e.g., by syntactic operations or post-syntactic/prosodic ones? (When can 2P be violated?) We will see that, while these clitics are never in initial position, they are not always in exact 2P. Finally, what determines the domain of 2P? For example, Anderson (2008) describes different sorts of clitics, ones that must be non-initial in CP versus in IP.

In this paper, we seek to situate Caquinte clitics within these larger dialogues. It is structured as follows: Section 2 provides a brief overview of Caquinte, and introduces two sorts of 2P clitics. One sort, two nominal 2P clitics, appear in nominal domains. The other sort, at least 25 clausal 2P clitics, appear in clausal ones. Neither sort ever appears in initial position, but they may appear between words which otherwise form a syntactic constituent, e.g., [Adj=CL N] in the case of nominal clitics and [Dem=CL N] in the case of clausal clitics. Both sorts allow "stacking" (e.g., =*ka=mpa=shine=te*), but each is subject to distinct constraints on possible hosts. For the clausal clitics, we highlight the behavior of two subtypes.

Section 3 provides an analysis focusing on the clausal clitics. First, we claim that all Caquinte clitics are prosodically deficient, as evidenced by stress shifts on the stem. We capture this by associating each clitic with a subcategorization frame ($_\omega$ [...]=CL) that indicates that it must have a host to its left, and together they form a phonological word ω, following Inkelas (1990) and Bennett, Harizanov, and Henderson (2018), among others. Second, we argue that [X]=CL is formed via a post-syntactic operation and not through syntactic movement, supported by the fact that clitics can break up syntactic constituents. Third, we argue that clausal clitics are merged at different points on the clausal spine, which explains the distribution of the two subtypes. Taken together, 2P clitics stand at the intersection of syntax, morphology, and phonology, and constitute an essential case study in the description and analysis of the interface.

2 Clitic patterns in Caquinte

2.1 The Caquinte language

Caquinte (ISO 639-3: cot) is a Kampa Arawak language spoken in the tropical lowlands of southeastern Peru by fewer than 500 people (Castillo Ramírez 2017; Swift 1988). It is polysynthetic, strongly headmarking, and exhibits basic VSO word order with subject agreement, reality status, and voice as obligatory inflectional categories. The verbal template includes three prefixal and upwards of twenty suffixal slots. Example (1) illustrates a typical sentence, with numerous prefixes, suffixes, and clitics attached to roots.[3] A preverbal topic is boxed and verbs are underlined. Several clitics are indicated in bold. The clausal clitics occur in at least seven slots.

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[3] Epenthetic segments /t/ and /a/, which repair vowel and consonant hiatus, respectively, are not represented in the segmentation. Graphemes correspond to their IPA equivalents, with the exceptions of: <b> = [β]; <ch> = [tʃ]; <j> = [h]; <sh> = [ʃ]. Other abbreviations are: A = applicative; ABL = ablative; ACT =

(1) Irira iranianishite ikenkejanake, ikanti: "Imaika**mpani** nojokeneri kachojari kameetsa**nijite** namenabakeri impeanakempa**geti**."

iri- ra iri- anianishi -te i- kenkej -an -k -i i-
3M- D:MED 3M.P- brother-in-law -POSS 3M.S- think -ABL -PFV -R:ACT 3M.S-

kaN -i imaika **=mpani** no- ojok -e -nV -ri kachojari kameetsa
say -R:ACT now =CT 1S- give -IRR -A:REC -3M.O manioc.beer PURP

=niji **=te** no- amen -ab -k -e -ri i- N- peg -an
=PURP =CE 1S- see -DIR -PFV -IRR -3M.O 3M.S- IRR- transform -ABL

-k -e -mpa **=geti**
-PFV -IRR -MID =when

'His brother-in-law thought, saying: "Now I'm going to give him manioc beer, so I can watch him when he transforms."'

2.2 Nominal second-position clitics

We divide the clitics into two sorts: nominal 2P clitics and clausal 2P clitics. As their name indicates, nominal 2P clitics appear within the nominal domain. There are two such clitics, =*pae*, a plural, and =*ki*, a general locative. In examples (2a) and (2b), these clitics attach to an unmodified noun; in (2c), where they co-occur, they stack obligatorily in the order shown.

(2) **Nouns**

a. otsempi**pae**
otsempi =pae
mountain =PL
'mountains'

b. otsempi**ki**
otsempi =ki
mountain =LOC
'in the mountain'

c. ibako**paeki**
i- bako =pae =ki
3M.P- hand =PL =LOC
'in his hands'

When a noun is modified by a prenominal adjective, a lone clitic attaches to the first word, the adjective (3).

(3) **Adjectives**

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active; ADJVZR = adjectivizer; CE = counter-expectational; CNGR = congruent; CT = contrastive topic; D = demonstrative; DIR = directional; F = feminine; FOC = focus; IDEO = ideophone; INDR = indirect; IRR = irrealis; LOC = locative; M = masculine; MED = medial; MID = middle; NEG = negation; O = object; P = possessor; PFV = perfective; PL = plural; POSS = possessive; PURP = purpose; R = realis; REC = recipient; S = subject; TOP = topic.

a. otsipa**ki** otsempi

o-	tsipa	=ki	otsempi
3F-	other	=LOC	mountain

'in another mountain'

b. iririjegi**pae** pamakabiri

iririjegi	=pae	pamakabiri
large	=PL	fish

'large fish'

When both clitics are present in the same context, they obligatorily separate (4). (The fact that =*pae* precedes =*ki* at a distance reflects their order when they stack.)

(4) onirojegi**pae** chomo**ki**

onirojegi	=pae	chomo	=ki
large	=PL	clay.pot	=LOC

'in large clay pots'

In contrast, in the context of any other sort of prenominal modifier, the noun obligatorily serves as the host for the clitic(s). This is shown in (5) with demonstratives, (6) with quantifiers, and (7) with numerals. Example (6c) is especially important because it shows that non-adjectival prenominal modifiers cannot serve as hosts in the context of both clitics; this is unlike adjectives, in which case the clitics must separate.

(5) **Demonstratives**

a. irira iraajanire**pae**

iri-	ra	iri-	aajanire	=pae
3M-	D:MED	3M.P-	employee	=PL

'his employees'

b. onta otsempi**ki**

o-	nta	otsempi	=ki
3F-	D:DIST	mountain	=LOC

'in that mountain'

(6) **Quantifiers**

a. maasano kiri**pae**

maasano	kiri	=pae
all	peach.palm	=PL

'all the peach palms'

b. osheki kotsironaki**ki**

osheki	kotsironaki	=ki
many	pot	=LOC

'in many pots'

c. maasano tsobironaki**paeki**

maasano	tsobironaki	=pae	=ki
all	house	=PL	=LOC

'in all the houses'

(7) **Numerals**

mabite ibako**ki**

mabite	i-	bako	=ki
two	3M.P-	hand	=LOC

'by his two hands'

Lastly, when the phrase is more complex, consisting of a prenominal demonstrative and adjective, the adjective continues to host, and not the demonstrative or noun (8).

(8) ora kisaariki costal

o-	ra	kisaa	-ri	=ki	costal
3F-	D:MED	be.black	-ADJVZR	=LOC	sack[Sp.]

'in that black sack'

We summarize the distribution of nominal 2P clitics in Table 1 below.

Table 1: Distribution of Nominal 2P Clitics

Form	[N]	[Adj] [N]	[Dem/Quant/Num] [N]
=pae	N=CL	Adj=CL N	Dem/Quant/Num N=CL
=ki	N=CL	Adj=CL N	Dem/Quant/Num N=CL
=pae =ki	N=CL=CL	Adj=CL N=CL	Dem/Quant/Num N=CL=CL
	2P	2P	never 2P

2.3 Clausal second-position clitics

Another set of clitics, consisting of at least 25 members, are what we call clausal 2P clitics, with meanings traditionally associated with CP, not DP as with nominal 2P clitics. As such, they resemble non-pronominal clitics in Tagalog (Anderson 2011; Schachter 1973; Schachter and Otanes 1972), expressing categories such as discourse relations (e.g., *=mpa* INCONGRUENT), clause linking (e.g., *=niji* PURPOSE), modality (e.g., *=ka* WEAK MODAL), evidentiality (e.g., *=sa* INFERENTIAL), emotional states (e.g., *=shine* IRRITATION), and various adverbial notions (e.g., *=keti* 'ahead'). Clausal clitics range from prosodically small monosyllabic clitics (see above) to prosodically large clitics, such as four-syllable *=sakanika* MIRATIVE. In the discussion that follows, we illustrate the relevant patterns primarily with two clitics, *=geti* 'when, if' and *=tari* CONGRUENT (often felicitously translated as 'because').

As with nominal clitics, clausal clitics do not have a consistent host and also never appear in initial position. In order to illustrate this distribution, note the schematic representation of Caquinte syntax in (9): before the verb are positions for topic, focus, and negation, followed by the subject and object.[4]

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[4] For more detailed information about Caquinte syntax see O'Hagan (to appear) and Baier and O'Hagan (this volume); and for general description of other Kampa Arawak languages, see Beier (2010), Michael (2008), Mihas (2015, 2017, to appear), Payne (1981), Shaver (1996), Snell (2011), and related publications.

(9)   TOPIC FOCUS NEGATION FOCUS **VERB** SUBJECT OBJECT

In clauses consisting of a verb in initial position (10), clausal clitics attach to the verb, after all suffixes.

(10) a. Yaanakena**tari**...   V=CL

i-	ag	-an	-k	-i	-na	=**tari**
3M.S-	take	-ABL	-PFV	-R:ACT	-1O	=CNGR

'It's that he took me...'

b. Oposatanake**geti** nokemi bero bero.   V=CL

o-	posa	-an	-k	-i	=**geti**	no-	kem	-i	bero bero
3F.S-	be.cooked	-ABL	-PFV	-R:ACT	=when	1S-	hear	-R:ACT	IDEO:voices

'When it cooked, I heard voices.'

When a verb is negated by a particle, clausal clitics attach to the particle (11). (Affixes cannot similarly attach to the negator, justifying the affix-clitic distinction.)

(11) a. "...tee**tari** nonkejetempiji."   Neg=CL V

tee	=**tari**	no-	N-	keje	-e	-mpi	-ji
NEG:R	=CNGR	1S-	IRR-	be.like	-IRR	-2O	-NEG:R

"...because we're not like you."

b. Napatsaabantake tee**geti** nontsateroji.   Neg=CL V

no-	apatsaabaN	-ak	-i	tee	=**geti**	no-	N-	tsa	-e	-ro	-ji
1S-	read	-PFV	-R:ACT	NEG:R	=when	1S-	IRR-	know	-IRR	-3F.O	-NEG:R

'I would read when I didn't know it.'

The same is true of a focus phrase, which appears obligatorily before the verb and is instantiated as a dedicated focus pronoun in (12).

(12) a. Irio**tari** gametabakero.   Foc=CL V

irio	=**tari**	ogi-	ame	-ab	-k	-i	-ro
3M:FOC	=CNGR	CAUS-	be.accustomed	-DIR	-PFV	-R:ACT	-3F.O

'He trained her.'

b. Irio**geti** jibatankitsine irimetojanake...   Foc=CL V

irio	=**geti**	jiba	-ankitsi	-ne	iri-	metoj	-an	-k	-e
3M:FOC	=if	go.ahead	-PFV	-IRR	3M.S.IRR-	die	-ABL	-PFV	-IRR

'If he dies first...'

In certain syntactic contexts, the clausal clitics *=tari* and *=geti* seen above can be shown to instantiate two subtypes of clausal clitics, which we thus term the 'T-type' and 'G-type.' With topicalized noun phrases — one such context, which regularly consists of a preverbal noun modified by the medial demonstrative *ra* —, a T-type clitic may attach either to the demonstrative (13a) or to the first word following the noun (13b).

(13) a. Irira**tari** Taatakini tee inkajemeji...

iri-	ra	=**tari**	Taatakini	tee	i-	N-	kajem	-e	-ji
3M-	D:MED	=CNGR	Taatakini	NEG:R	3M.S-	IRR-	shout	-IRR	-NEG:R

'Taatakini didn't shout...'

b. Ora noniinanite tee**tari** ontsatakotempaji...

o-	ra	non-	iinani	-te	tee	=**tari**	o-	N-	tsa	-ako
3F-	D:MED	1P-	mother	-POSS	NEG:R	=CNGR	3F.S-	IRR-	know	-A:INDR

-e	-mpa	-ji
-IRR	-MID	-NEG:R

'My mother didn't know...'

In the same context, a G-type clitic, in contrast, may attach only to the word following the entire topicalized noun phrase (14), and not to the demonstrative. Neither the T-type nor the G-type clitics ever attach to the noun.

(14) Irira pinchinchi itsatabakero**geti**...

iri-	ra	pinchinchi	i-	tsa	-ab	-k	-i	-ro	=**geti**
3M-	D:MED	vampire.bat	3M.S-	kow	-DIR	-PFV	-R:ACT	-3F.O	=when

'When the vampire bat heard her...'

This distribution is notable when compared to the nominal clitics above (5), where the clitic was *not* able to attach to the demonstrative when it modified a noun. Thus, although this sequence is impenetrable from the perspective of the nominal clitics, the same does not hold for the clausal clitics. Example (15), with both a clausal clitic (=*kea* NON-WITNESSED) and a nominal clitic (=*pae* PLURAL), illustrates this.

(15) Ora**kea** mankigarentsi**pae** yaajiakero...

o-	ra	=**kea**	mankigarentsi	=**pae**	i-	ag	-jig	-k	-i	-ro
3F-	D:MED	=EVID	woman	=PL	3M.S-	take	-PL	-PFV	-R:ACT	-3F.O

'The women they took [as wives]...'

The distributions of T- and G-type clitics are summarized in Table 2. (Note in the top row that 'X' stands for any sort of constituent, e.g., adverbs.) The divergence in their distributions is highlighted in gray.

Table 2: Distribution of clausal 2P clitics (T- & G-types)

Form	[V]	[Neg] [V]	[Foc] [V/X]	[TopP D N] [V/X]
=*tari* 'because'	V=CL	Neg=CL V	Foc=CL V	D(=CL) N V(=CL)
=*geti* 'when, if'	V=CL	Neg=CL V	Foc=CL V	D N V=CL
	2P	2P	2P	clitic-dependent

3 Analysis

3.1 Claim 1: Caquinte clitics are prosodically deficient

Like affixes, clitics are phonologically bound and require a host. We therefore posit that clitics are prosodically deficient and do not form an appropriate prosodic constituent by themselves, instead forming a single phonological word with their host. This is evidenced by stress shifts. Cliticless verbs are provided in the (a.) examples below. When cliticized, as in the (b.) examples, the stress shifts to another position, indicating that clitics are not stress-neutral.[5]

(16) a. [ibétsata] 'he speaks'

  b. [ibetsáta=geti] 'when he speaks'

(17) a. [imétojake] 'he died'

  b. [imetojáke=tari] 'because he died'

Thus, stress is assigned to the entire constituent [X]=CL and not solely to the host. In terms of the typology of clitics, Caquinte 2P clitics are characteristic of 'internal clitics', in which the clitic and the host form a single phonological word (PhWd), following Cardinaletti and Repetti (2009), Peperkamp (1997), Selkirk (1996), and Vogel (2009). A comparison to other sorts of clitics ('word', 'free', and 'affixal' clitics) is given in Figure 1.
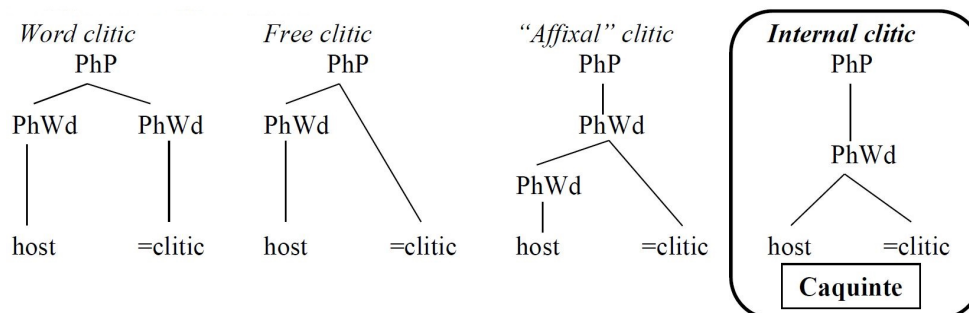

Figure 1: Prosodic structure types

We analyze these clitics as subcategorizing for a host to their left, following Bennett et al. (2018), Inkelas (1990), Itô and Mester (2013), Raffelsiefen (1999), and Tyler (2018), among others. Subcategorization is formalized as a requirement of a morpheme, or of a set of morphemes, for a specific (prosodic) structure to its right or left and/or a requirement on the prosodic constituent formed by [X]=CL (i.e., vertical subcategorization). In Caquinte, each clitic is associated with a frame ($_\omega$ [...]=CL) that indicates that it must have a host to its left, and together they form a phonological word ω, as exemplified with *=tari* in (18).

(18) Σ: [+CONGRUENT]
  Φ: ($_\omega$ [...]=/tari/)   where ($_\omega$ ...) = phonological word

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[5] Kampa Arawak stress systems are notoriously complex, and the reader is referred to Crowhurst and Michael (2005), Payne (1991), and Rasin (submitted).

3.2 Claim 2: [X]=CL is formed post-syntactically

There are multiple possibilities for deriving [X]=CL, as schematized in Figure 2. On the left is a syntactic analysis in which the host [X] moves up to a position higher than the clitic, in this case to the specifier of the clitic, which heads its own projection. On the right is a post-syntactic analysis in which the clitic and host remain *in situ*, but where the clitic moves down post-syntactically. We adopt the post-syntactic analysis for the Caquinte data.
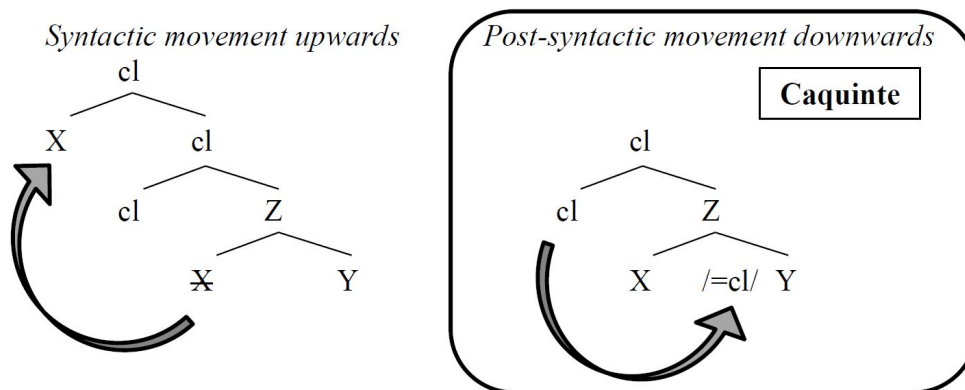

Figure 2: Deriving [X]=CL

One argument involves T-type clausal clitics and topicalized noun phrases as in (13), the latter case inolves a sequence [Dem N] followed by the verb. Recall that when a clausal clitic co-occurs with such a sequence, the clitic attaches either to the demonstrative or to some element lower than the noun (e.g., the verb), but never to the noun itself (i.e., Dem=CL N V, etc., but not *Dem N=CL V). This distribution is unexpected under the alternative analysis involving syntactic movement upwards. Under this alternative, the order D=CL N would entail that D has moved around the clitic, forming a discontinuous constituent with the noun. If D is able to move up to this higher position, then we would also expect the entire DP (i.e., [Dem N]) to be able to move up as well, which would result in the entire [Dem N] sequence preceding the clausal clitic. This structure is never found in Caquinte, thus we reject this alternative.

A second argument involves prosodic deficiency. If syntax is phonology-blind and insensitive to phonological properties of syntactic heads (Halle and Marantz 1993; Miller, Pullum, and Zwicky 1997), then movement should always be triggered by syntactic and not phonological conditions. A hypothetical EPP condition on a clitic phrase CLP that triggers movement of a lower constituent [X] in order to satisfy the subcategorization frame of the clitic would entail a phonological motivation for a syntactic operation, a blatant contradiction of phonology-free syntax. Although phonology-free syntax has been repeatedly challenged in the literature – recently by Richards (2016) and Shih and Zuraw (2017) – we see no clear evidence in Caquinte to support it, particularly in light of the first argument.

In total, we adopt the post-syntactic sequence in (19). Clausal clitics are merged above topic phrases (TopP), the latter containing a topic DP [Dem N] in their specifier; the resulting CP layer is above the VP layer containing the verb. This syntactic structure is sent to spellout, where phonological material is inserted via Vocabulary Insertion (Halle and Marantz 1993), abbreviated in the schema below as /CL/, /D/, etc. At spellout (or, in a serial model, immediately afterward), the clausal

clitic then moves down in order to attach to the first constituent which can satisfy its subcategorization frame, in this case /D/.[6]

(19) **Post-syntactic Operations**

    1.   syntactic structure: [=⟨CL⟩ [$_{TopP}$ [$_{DP}$ D N] [$_{Top}$ Top [$_{VP}$ V [...

    2.   spellout: ⟨/=CL/⟩ /D/ /N/ /V/

    3.   post-syntactic movement: /D/ ⟨/=CL/⟩ /N/ /V/

<div align="right">(cf. ^x/D/ /N/ ⟨/=CL/⟩ /V/)</div>

3.3   Claim 3: Clausal clitics are merged at different points in the clause

A schematic representation of the syntactic positions of Caquinte was given in (9). Based on that, we adopt the following structure for the clausal spine, where > indicates syntactically higher: TopicP > {FocusP; NegP} > [...VP...]. Furthermore, Table 2 above showed the distribution of T- and G-type clitics, which are differentiated by their behavior with topicalized noun phrases. We repeat this table below, updated to fit the clausal spine.

Table 3: Distribution of 2P clitics within the clause

Form	[$_{TopP}$ D N] [V/X]	[Foc] [V/X]	[Neg] [V]	[V]
=*tari* 'because'	D(=CL) N V(=CL)	Foc=CL V	Neg=CL V	V=CL
=*geti* 'when, if'	D N V=CL	Foc=CL V	Neg=CL V	V=CL

    We observe that both =*tari* and =*geti* always appear in second-position with respect to the latter three contexts, [Foc] [V], [Neg] [V], and [V]. We capture this by merging the clitics above these positions, with uniform post-syntactic movement downward in order to satisfy the subcategorization frame of the clitic. In the example below, the clitics =*tari* and =*geti* are uniformly merged above the V, Neg, and Foc projections, and move post-syntactically to second-position.

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[6] We do not speculate as to the exact post-syntactic operation responsible for the clitic movement, e.g., lowering, local dislocation, etc. (Embick and Noyer 2001).

(20) **Contexts: verb, negation, focus**

SYNTAX	POST-SYNTAX	SYNTAX	POST-SYNTAX
tari > V	V=*tari*	*geti* > V	V=*geti*
tari > Neg > V	Neg=*tari* V	*geti* > Neg > V	Neg=*geti* V
tari > Foc > V	Foc=*tari* V	*geti* > Foc > V	Foc=*geti* V

On the other hand, =*tari* and =*geti* behave differently with respect to topicalization. We capture this difference by imposing different restrictions on where each of these two clitic types can merge. The T-type can merge above or below TopP, and thus can appear immediately after the first word within TopP (D) or the first word after the entire TopP (V).

(21) **Syntactic context: topic phrases**

SYNTAX	POST-SYNTAX
tari > [_TopP_ D N] > V	[_TopP_ D=*tari* N] V
[_TopP_ D N] > *tari* > V	[_TopP_ D N] V=*tari*
*geti > [_TopP_ D N] > V	**[_TopP_ D=*geti* N] V
[_TopP_ D N] > *geti* > V	[_TopP_ D N] V=*geti*

Note in (21) that, even with the [_TopP_ D N] > *tari* > V merge sequence, the clitic =*tari* must lower onto V even though it would have a host to its left with which it could prosodically integrate (N). This implies that, at the point when the subcategorization frame is evaluated post-syntactically, TopP is an unavailable host. We take this as evidence that post-syntactic structure is cyclic: the phonological requirements of morphemes are assessed inside-out in a series of cycles. With respect to =*tari*, at the point when its subcategorization frame is assessed, the clitic is outermost; its downward movement onto V satisfies the frame.

To end our discussion, we show that merge order is sensitive only to the immediately lower element. Crucial evidence comes from adverbs, which precede the verb and serve as a host to =*geti*, the more restricted type of clausal clitic (22).

(22) *geti* > **Adv** > **V**   Adv=CL V

...iroakera**geti** ikorakeke nogoestate.

iroakera	=**geti**	i-	korake	-k	-i	no-	goesta	-te
first.time	=when	3M.S-	come	-PFV	-R:ACT	1P-	linguist	-POSS

'...when our linguist came for the first time.'

Such adverbs appear in various preverbal positions, and may precede or follow topicalized noun phrases, as schematized in (23).

(23) **Ordering Possibilities of Topics and Adverbs**

TopP > Adv > V
Adv > TopP > V

As stated above, a merge order *geti > TopP > V is not possible, evidenced by the fact that surface patterns *[TopP D=geti N] V are unattested. However, if there is an intervening adverb (Adv) above TopP, the clitic =geti is then able to be merged above the Adv > TopP sequence and be hosted by the adverb. This is shown in (24), with the adverb *ari* 'thus'.[7]

(24) **geti > Adv > TopP > V**   Adv=CL Top V

      Ari**geti** naatimpa irimetojajitena...

ari	=**geti**	naatimpa	iri-	metoj	-ji	-e	-na
thus	=if	1:TOP	3M.S.IRR-	kill	-NREF	-IRR	-1O

      'If they kill me...'

An explanation of this pattern may require enriching the selectional properties of the G-type clitics, requiring that their host be of a certain morphosyntactic category.

4 Summary

In this paper we introduced two sorts of 2P clitics. One sort were nominal 2P clitics that appear in nominal domains; the other sort were (at least) 25 clausal 2P clitics that appear in clausal domains. We showed that neither sort ever appears in initial position, but may appear between words which otherwise form a syntactic constituent, e.g., [Adj=CL N] in the case of nominal clitics and [Dem=CL N] in the case of clausal clitics. In our analysis, we claimed that all Caquinte clitics are prosodically deficient, as evidenced by stress shifts on the stem. We captured this by associating each clitic with a subcategorization frame ($_\omega$ [...]=CL) triggering the formation of a constituent [X]=CL that is formed via a post-syntactic operation and not through syntactic movement. Finally, we showed that clausal clitics have T- and G-subtypes depending on whether they can break up a sequence [D N] (a topicalized noun phrase), and argued that the two types of clausal clitics are merged at different points on the clausal spine. However, restrictions on G-type clitics and topicalized phrases disappear when an adverb intervenes.

The reader will notice that the behavior of nominal 2P clitics is unresolved. Namely, why can clausal clitics break up a sequence [Dem N] but nominal clitics cannot, and why can nominal clitics break up an [Adj N] sequence, but not one consisting of other sorts of modifiers? One potential analysis would involve selectional restrictions on clitics to particular morphosyntactic categories (as speculated above for G-type clausal clitics). This would be an atypical property of clitics, which are understood as having low selectivity relative to affixes.

References

Anderson, Stephen R. 1993. Wackernagel's revenge: Clitics, morphology, and the syntax of second position. *Language* 69:68–98.

Anderson, Stephen R. 2005. *Aspects of the theory of clitics*. Oxford: Oxford University Press.

Anderson, Stephen R. 2008. Second position clitics in Tagalog. In *The nature of the word*, ed. Sharon Inkelas and Kristin Hanson, 549–566. Cambridge, MA: MIT Press.

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[7] We do not speculate as to the merge position of adverbs, and tentatively assume that they occupy specifier/adjunct positions of functional projections.

Anderson, Stephen R. 2011. Clitics. In *The Blackwell companion to phonology*, ed. Marc van Oostendorp, Colin J. Ewen, Elizabeth Hume, and Keren Rice, 1–17. West Sussex: John Wiley & Sons.

Baier, Nico, and Zachary O'Hagan. this volume. Morphological reflexes of subject extraction in Caquinte. In *Proceedings of WSCLA 23*.

Beier, Christine. 2010. The social life and sound patterns of Nanti ways of speaking. Doctoral Dissertation, University of Texas, Austin, TX.

Bennett, Ryan, Boris Harizanov, and Robert Henderson. 2018. Prosodic smothering in Macedonian and Kaqchikel. *Linguistic Inquiry* 49:195–246.

Black, H. Andrew. 1992. South American verb second phenomena: Evidence from Shipibo. In *Syntax at Santa Cruz 1*, ed. H. Andrew Black and James McCloskey, 35–63. Santa Cruz, CA: Syntax Research Center, UCSC.

Bošković, Željko. 2001. *On the nature of the syntax-phonology interface*. New York, NY: Elsevier.

Cardinaletti, Anna, and Lori Repetti. 2009. Phrase-level and word-level syllables: Resyllabification and prosodization of clitics. In *Phonological domains: Universals and deviations*, ed. Janet Grijzenhout and Baris Kabak, 77–102. Berlin: Mouton de Gruyter.

Castillo Ramírez, Antonio. 2017. *Aspectos de la frase nominal en caquinte*. Lima: Tesis de licenciatura, Universidad Nacional Mayor de San Marcos.

Chung, Sandra. 2003. The syntax and prosody of weak pronouns in Chamorro. *Linguistic Inquiry* 34:547–599.

Crowhurst, Megan J., and Lev D. Michael. 2005. Iterative footing and prominence-driven stress in Nanti (Kampa). *Language* 81:47–95.

Embick, David, and Rolf Noyer. 2001. Movement operations after syntax. *Linguistic Inquiry* 32:555–595.

Fischer, Susann. 2003. Rethinking the Tobler-Musaafia Law: Data from Old Catalan. *Diachronica* 20:259–288.

Halle, Morris, and Alec Marantz. 1993. Distributed morphology and the pieces of inflection. In *The view from building 20*, ed. Kenneth Hale and S. Jay Keyser, 111–176. Cambridge, MA: MIT Press.

Halpern, Aaron. 1995. *On the placement and morphology of clitics*. Palo Alto, CA: Center for the Study of Language.

Halpern, Aaron, and Arnold M. Zwicky. 1996. *Approaching second: Second position clitics and related phenomena*. Palo Alto, CA: Center for the Study of Language.

Inkelas, Sharon. 1990. *Prosodic constituency in the lexicon*. New York, NY: Garland.

Itô, Junko, and Armin Mester. 2013. Prosodic subcategories in Japanese. *Lingua* 124:20–40.

Kaisse, Ellen M. 1982. Sentential clitics and Wackernagel's Law. In *West Coast Conference on Formal Linguistics*, 1–14.

Klavans, Judith L. 1985. The independence of syntax and phonology in cliticization. *Language* 61:95–120.

Legate, Julie Anne. 2008. Warlpiri and the theory of second position clitics. *Natural Language and Linguistic Theory* 26:3–60.

Michael, Lev. 2008. Nanti evidential practice: Language, knowledge, and social action in an Amazonian society. Doctoral Dissertation, University of Texas at Austin, Austin, TX.

Mihas, Elena. 2015. *A grammar of Alto Perené (Arawak).* Berlin: De Gruyter Mouton.

Mihas, Elena. 2017. *Conversational structures of Alto Perené (Arawak) of Peru.* Amsterdam: John Benjamins.

Mihas, Elena. to appear. *A grammar of Satipo Ashaninka with comparative notes on other Northern Kampa languages of Peru.* Lincoln, NE: University of Nebraska Press.

Miller, Philip H., Geoffrey K. Pullum, and Arnold M. Zwicky. 1997. The principle of phonology-free syntax: Four apparent counterexamples in French. *Journal of Linguistics* 33:67–90.

Mussafia, Alfredo. 1898. Enclisi o proclisi del pronome personale atono quale oggeto. *Romania* 27:145–146.

Noyer, Rolf. 2001. Clitic sequences in Nunggubuyu and PF convergenc. *Natural Language and Linguistic Theory* 19:751–826.

O'Hagan, Zachary. to appear. Morphosyntax and semantics of psych-predicates in Caquinte. *Cadernos de Etnolingüística* 6.

Pancheva, Roumyana. 2005. The rise and fall of second position clitics. *Natural Language and Linguistic Theory* 23:103–167.

Payne, David L. 1981. *The phonology and morphology of Axininca Campa.* Arlington, TX: SIL & University of Texas at Arlington.

Payne, Judith K. 1991. Los patrones de acentuación en el asheninca. *Revista Latinoamericana de Estudios Etnolingüísticos* 6:9–36.

Peperkamp, Sharon. 1997. *Prosodic Words.* The Hague: Holland Academic Graphics.

Raffelsiefen, Renate. 1999. Diagnostics for prosodic words revisited: The case of historically prefixed words in English. In *Studies on the phonological word*, ed. Tracy Alan Hall and Ursula Kleinhenz, 133–201. Amsterdam: John Benjamins.

Rasin, Ezer. submitted. The stress-encapsulation universal and phonological modularity. Unpublished manuscript.

Richards, Norvin. 2016. *Contiguity theory.* Cambridge, MA: MIT Press.

Schachter, Paul. 1973. Constraints on clitic order in Tagalog. In *Parangal kay Cecilio Lopez*, ed. Andrew B. Gonzalez, 214–231. Manila: Linguistic Society of the Philippines.

Schachter, Paul, and Fe T. Otanes. 1972. *Tagalog reference grammar*. Berkeley, CA: University of California Press.

Selkirk, Elisabeth. 1996. The prosodic structure of function words. In *Signal to syntax*, ed. James L. Morgan and Katherine Demuth, 187–213. Mahwah: Lawrence Erlbaum.

Shaver, Harold. 1996. *Diccionario nomatsiguenga-castellano.* Yarinacocha: SIL.

Shih, Stephanie S., and Kie Zuraw. 2017. Phonological conditions on variable adjective-noun word

order in Tagalog. *Language: Phonological Analysis* 93:e317–e352.

Snell, Betty E. 2011. *Diccionario matsigenka-castellano: con índice castellano, notas enciclopédicas y apuntes gramaticales*. Lima: SIL.

Spencer, Andrew, and Ana R. Luís. 2012. *Clitics: An introduction*. Cambridge, MA: Cambridge University Press.

Swift, Kenneth. 1988. *Morfología del caquinte*. Lima: Ministerio de Educación.

Tobler, Adolf. 1875. Besprechung von J. le Coultre. De l'order des mots dans Chrétien de Troyes. *Vermischte Beiträge zur französischen Grammatik* 5:395–414.

Tyler, Matthew. 2018. Simplifying MATCH WORD: Evidence from English function words. In *Nels 48 proceedings*, ed. Sherry Hucklebridge and Max Nelson. Amherst, MA: GLSA Publications.

Vogel, Irene. 2009. The status of the clitic group. In *Phonological domains: Universals and deviations*, ed. Janet Grijzenhout and Baris Kabak, 15–46. Berlin: Mouton de Gruyter.

Wackernagel, Jac. 1892. über ein Gesetz der indogermanischen Wortstellung. *Indogermanische Forschungen* 1:333–436.