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Grammaticalization of the linking devices with ka in Purepecha

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This paper describes, in synchrony, the use, form, and position of the linking devices with ka in coordinating phrases and clauses and in subordinate clauses. This study also explores the relation between the different occurrences of ka and investigates a diachronic common source. Taking into account such parameters as weight, cohesion, and variability (Lehmann 2002), I advance the hypothesis that there have been two routes of grammaticalization. These two routes include the free coordinator ka which has given rise to a dependent marker -ka that forms subordinators, and the subjunctive mood -ka which seems to be the grammaticalization of the assertive mood marker -ka used for speech-act participants.

Keywords: Grammaticalization, Purepecha, coordination, subordination, linker, coordinator

1. Introduction

Coordination and subordination represent two types of relation that are encoded by complex constructions (Bril & Rebuschi 2006). For Haspelmath (2007: 1), “The term coordination refers to syntactic constructions in which two or more units of the same type are combined into a larger unit and still have the same semantic relations with other surrounding elements.” Coordination applies to a combine of words, as in (1a) to the coordination of nouns and verbs phrases, in (1b) for the noun phrase, and in (1c) to the coordination of clauses. The members may be connected by means of a linking device1 called a coordinator, by a coordinating conjunction, or by coordinating connectives, such as ‘and’, ‘but’, ‘or’.

1 I am grateful to two anonymous reviewers who helped me improve this paper, in particular for making the terminology more precise. The term “linking device” is used with a general meaning when I refer to the general function of ka, whatever the context it appears in. When I refer to the marker in coordinating phrases or clauses, I call it the “coordinator” (Haspelmath 2007: 50). In subordinating clauses, the situation is more complex. The marker -ka suffixed on the verb is always called the “subjunctive” in accordance with the tradition in Purepecha descriptions (see below in Section 4 the explanation for this choice). When the marker -ka forms a complex marker that appears at the
(1) a. Peter and Maria sleep and snore.
    b. My wife and my three young girls went to the restaurant.
    c. He woke up early but he did not get up.

In contrast, subordination is a type of asymmetrical relation, restricted to clauses, in which the subordinate clause is dependent and subordinate to the main clause. The subordinate clause may be linked to the main one by means of a subordinator, also known as a subordinating conjunction, that may be called a relative subordinator or relative marker for the relative clause, as in (2a), a complementizer for the complement clause, as in (2b), or a subordinator for the adverbial clause, as in (2c). The form of the subordinator depends on the type of subordinate clause (Cristofaro 2003, Thompson et al. 2007), in particular when they are grammatical morphemes with lexical content (e.g., English before, when, if).

(2) a. The girl [who was crying] was hungry.
    b. She suggested [that he leave].
    c. He gets up [when the sun rises].

As illustrated above, coordination and subordination are generally expressed by means of two distinct types of linking device. (These relations may also be showed by juxtaposition with no overt markers: see Cristofaro 2003, Haspelmath 2007, Longrace 2007, and Thompson et al. 2007.) However, in certain languages, the links have a similar appearance, in the sense they have a common formal component even if they are not identical.

Purepecha, an isolate language spoken in Mexico, is an example of this: linking devices with ka implies a relation between at least two units. Coordination is expressed by ka, a coordinator that on its own establishes a conjunctive relation between two units, as in (3a) for the noun phrase and in (3b) for clauses. In coordination, ka constitutes a conjunction in the traditional sense, as it is a free and invariable morpheme (Giacalone Ramat & Mauri 2011: 654). Its position is always before the second unit. Moreover, ka may receive adverbial enclitics (Chamoreau 2014) to create other coordinators, such as ka=ru in (3c) for adversative coordination.

(3) a. pawani t’iri-a-ka=ni juchi jinkonikwa-o ka mimi-o
    tomorrow eat-IRR-ASS1/2S=1SG POSS1SG sister-RES and brother-RES
    ‘Tomorrow, I will eat at my sister’s and brother’s house.’

beginning of the clause, it is generally called the “subordinator” because regardless of the type of subordinate clause the function of this marker is the same: it introduces the subordinate clause and indicates the left boundary of the clause. However, in contexts in which it is relevant to distinguish the different types of subordinator, it may be called the “relative subordinator” for relative clauses, the “complementizer” for complement clauses, and the “subordinator” for adverbial clauses.
b.  

jwata tsakapu kw’ani-ku-xa-p-ti  

hill stone throw-APPL3O-PROG-PST-ASS3S and stone

ma kwhiripu anta-s-p-ti  

one people reach-AOR-PST-ASS3S

‘The hill was throwing stones and one stone reached people.’

c.  

ni-ra-s-ti  ka=ru kinse diya=ksi, pastori-icha  

go-FT-AOR-ASS3S and=other fifteen day=3PL shepherd-PL

arhi-ra-sín-ti  yamintu ireta  

say-CAUS-HAB-ASS3S all village

‘He went out but for fifteen days the shepherds make noise in the entire village.’

In contrast, clausal subordination is expressed by two markers -ka: one beginning the subordinate clause and another at the end of the verb that is generally positioned at the end of the clause. In this type of clause, -ka is no longer a conjunction, as in the case of coordination, because it always depends on another element. Thus, the marker -ka presents a dependent form, a suffix, to indicate embedding and subordinate clauses. At the start of the subordinate clause, -ka forms different subordinators in combination with another element: after the demonstrative pronoun inte ‘this’ (elided as in) to form the relative subordinator inka with the relative clause, as illustrated in (4a); after the adverb of manner isï ‘thus’ to build the complementizer iska for the complement clause, as in (4b); and after the instrumental postposition jimpo to form the subordinator jimpoka for a reason clause, as in (4c) (see below Section 4, where Table 3 presents a list of the various subordinators). At the end of the clause, the marker -ka suffixed on the verb is referred to as the “subjunctive” mood in the Purepechan tradition because it appears on the verb in the position occupied by the morphemes of this category (Capistrán 2002, Friedrich 1984, Monzón 2004, Wares 1984). The presence of -ka on the verb is a morphological constraint for all subordinate finite clauses; it is impossible to use another mood in this clause (Chamoreau 2009: 103-105). In this paper, I continue to use the label “subjunctive” even if it does not correspond to the traditional notion of the subjunctive as opposed to the assertive mood. The constraint of -ka on the verb and that the tense and the aspect display distinctive and reduced forms (compare the forms for the aorist aspect and past tense in (3b) and (4c)) indicate that subordinate finite clauses in Purepecha are less finite than main finite clauses (Chamoreau 2016).

(4) a.  

tsimanhi-e-x-ti=ksi=nha inte werantupinti-cha  [inka=ksi=nha  

two-PRED-AOR-ASS3S=3PL=EV DEM orphan-PL SUB=3PL=EV

ťáte-empa-ni  ka ama-mpa-ni no ka-nko-rhe-nka-ň-ka]  

father-KPOSS3-OBJ and mother-KPOSS3-OBJ NEG have-INTS-body-IT-AOR-SBJV

‘They said that there were two orphans who did not have a father and mother.’
b.  

\[
\text{arhi-x-ka } [\text{iska}=\text{ri} \ \text{yóntani} \ \text{jo-nkwa-pirin-ka}]
\]

\[\text{say-AOR-ASS1/2S SUB=S2SG late come-CENTRIP-COND-SBJV}\]

‘I said that you should come back late.’

c.  

\[
\text{jwata } \text{tsakapu } \text{kw’ani-ku-xa-p-ti } [\text{jimpoka} \ \text{jinche-p-ka}]
\]

\[\text{hill stone throw-APPL3O-PROG-PST-ASS3S SUB earthquake-AOR.PST-SBJV}\]

‘The hill was throwing stones because the earth trembled.’

The first aim of this paper is to describe, in synchrony, the use, form, and position of the linking devices with \textit{ka} in coordinating phrases and clauses and in subordinate clauses. The second aim is to explore the relation between the different occurrences of \textit{ka} and to investigate a diachronic common source. Taking into account such parameters as weight, cohesion, and variability (Lehmann 2002), I advance the hypothesis that there have been two routes of grammaticalization: (1) the free coordinator \textit{ka} has given rise to a dependent marker -\textit{ka} that forms subordinators; (2) the subjunctive mood -\textit{ka} seems to be the grammaticalization of the assertive mood marker -\textit{ka} used for speech-act participants (henceforth SAP).

The structure of this paper is as follows. Section 2 gives basic grammatical information about Purepecha. The coordinator \textit{ka} is described in Section 3. In Section 4, I explore the different context in which \textit{ka} occurs in a subordinate clause. The paper closes by proposing a hypothesis about two possible scenarios of grammaticalization.

2. Basic typological characteristics of Purepecha

Purepecha (formerly known as Tarascan) is classified as a language isolate and is spoken in the state of Michoacan in western Mexico by approximately 110,000 people (Chamoreau 2009, 2012). Classifying Purepecha within the Mesoamerican linguistic area is still debated, but generally it is not classified as a Mesoamerican language, as it possesses few of the characteristics shared by these languages (Smith-Stark 1994).

Purepecha is an agglutinative and synthetic language, and is almost exclusively suffixing. Although bare stems exist, there is a very productive derivational system in which a basic stem can take voice, causative, locative, positional, directional, and adverbial derivative suffixes. Inflectional suffixes follow the stem to mark aspect, tense, irrealis, mood, and person (Chamoreau 2009, 2017).

Purepecha has nominative-accusative alignment and is a case-marking language in which the nominal subject has no overt marker. The object is generally marked by the objective case marker -\textit{ni}. This morpheme encodes the object of a transitive verb, such as \textit{misitu-ni} ‘the cat’ in (5), and both objects of a ditransitive verb, such as \textit{inte-ni wantantskwa-ni} and \textit{Puki-ni}, in (6). The presence or absence of the objective case marker depends on different hierarchies: (i) the inherent semantic properties of the referent (human, animate); (ii) properties related to grammatical features (definite, count noun vs. mass noun, generic vs. specific, etc.); and (iii) pragmatic strategies (topic,
focus) (Chamoreau 2009). Typically, the objective case marker -ni indicates that the noun phrase is characterized as individuated.

(5) jo celia ata-x-iti ima-eri misitu-ni
    yes Celia beat-AOR-ASS 3SDEM-GEN cat-OBJ
    ‘Yes, Celia beat her cat.’

(6) celia arhi-x-iti inte-ni wantantskwa-ni Puki-ni
    Celia tell-AOR-ASS3S DEM-OBJ story-OBJ Puki-OBJ
    ‘Celia told Puki this story.’

Purepecha is an SV and SVO constituent order language as illustrated by examples (5) and (6). This is the basic order in the region of Lake Patzcuaro (Capistrán 2002, Chamoreau 2009:55-58). Other orders indicate specific pragmatic properties. Studies of constituent order in the other regions do not as yet exist. However, Purepecha exhibits traits of a SOV language: (i) tense, aspect, irrealis, and modal markers following the verb; (ii) postpositions; (iii) only suffixes; (iv) only enclitics; (v) case markers; (vi) main verbs preceding inflected auxiliaries; and (vii) positional variation of the head noun in the noun phrase that reveals that final head nouns precede non-final head nouns (compare examples (6) and (7)). SVO and SOV constituent orders were attested in the sixteenth century, and the former has increased since then. The change is most likely due to areal contact. Prior to the Conquest there were speakers of other languages in this territory, Nahuatl (Uto-Aztecan family) and Otomi (Otopamean family), two languages with verb-initial structure. The change probably began under the influence of these languages; Spanish, an SVO language, continued the process, for example by introducing prepositions (Chamoreau 2007).

Purepecha displays the predominance of dependent-marking, for example with the pronominal enclitic, as in (7), and the genitive case, as in (8). Subject and object pronouns are expressed by pronominal enclitics. Table 1 presents the two paradigms of pronominal enclitics, the subject and object enclitics.

(7) no=ri xipaxu-xa-p-ka
    NEG=S2SG steal-APPL3O-O3PL-PROG-PST-ASS1/2S
    ‘You were not stealing them.’

(8) nanaka-echa-eri jawiri sési ja-rha-a-ti
    girl-PL-GEN hair well be.there-FT-IRR-ASS3S
    ‘The girls’ hair is beautiful.’
Table 1. Pronominal enclitics in Purepecha

<table>
<thead>
<tr>
<th>Subject</th>
<th>Object</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>ø / =ni</td>
</tr>
<tr>
<td>2</td>
<td>=re (=ri)</td>
</tr>
<tr>
<td>3</td>
<td>ø</td>
</tr>
<tr>
<td>1PL</td>
<td>=ch’e (=ch’i) / =kxï</td>
</tr>
<tr>
<td>2PL</td>
<td>=ts’ï</td>
</tr>
<tr>
<td>3PL</td>
<td>=kxï</td>
</tr>
</tbody>
</table>

Independent and main clauses are the most finite types of clause: participants are expressed by a noun, as in (9), by an independent pronoun, as in (10), or by a pronominal enclitic, as in (7) for subject and (9) for object. The predicate, a verb as in (9) or a noun as in (10), must be marked by a mood. It may also be modified by an aspect and a tense, such as the progressive aspect and past tense in (7), or by an irrealis marker, as in (8).

(9)  juchi  tata=reni  kwane-xin-ti  jiwatsï  k’eri-ni
    POSS1SG  father=1SG  lend-HAB-ASS3S  coyote  old-OBJ
    ‘My father lends me to the old coyote ....’

(10) jucha  isï=si  mi-te-s-p-ka  ima  ts’irakwa  jimpo
     S1PL.IND  thus=FOC  open-SUP-AOR-PST-ASS1/2S  ART.DEF  cold  INS
     ‘We, thus, knew it for the cold.’

Purepecha distinguishes four different paradigms: aspect, tense, irrealis, and mood (henceforth ATIM). These suffixes have various dialectal allomorphs; I present in Table 2 the forms attested in the village of Jaracuar (for the different allomorphs see Chamoreau 2009 and Friedrich 1984). There are four aspect markers (aorist – the narrative non-marked aspect – habitual, progressive, and continuative), one tense marker (past), two irrealis markers (irrealis-future, conditional), and five mood markers (assertive, interrogative, imperative, exclamative, and subjunctive). Table 2 presents the morphemes as they occur in independent or main clauses.

---

2 For the first person plural, the difference between =ch’e and =kxï (or =ksi) today exhibits a dialect variation (Chamoreau 2009:64) that reveals a diachronic change: in the sixteenth century only =kuch’e (the marker that has been grammaticalized in ch’e) was used.

3 The first person object enclitic =ts’ïni and the second person object =kxïni are always used when the subject is plural.
Table 2. *ATIM markers in independent or main clauses*

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Tense</th>
<th>Irrealis</th>
<th>Mood</th>
</tr>
</thead>
<tbody>
<tr>
<td>AOR -x⁴</td>
<td>PAST -p/-an</td>
<td>IRR -a</td>
<td>ASS¹/²S -ka / ASS³S -tì</td>
</tr>
<tr>
<td>HAB -xín</td>
<td>PRS unmarked</td>
<td>COND -pirin</td>
<td>INT -ki/-i/-ø</td>
</tr>
<tr>
<td>PROG -xa</td>
<td></td>
<td></td>
<td>IMP.SG -ø / IMP.PL -e</td>
</tr>
<tr>
<td>CONT -xam</td>
<td></td>
<td></td>
<td>EXCL -k’a</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>SBJV -ka</td>
</tr>
</tbody>
</table>

These morphemes have a fixed order of occurrence at the end of the predicate: (aspect) + (tense) + (irrealis) + mood (Chamoreau 2009, 2017). Mood is obligatory in a finite verb. Aspect has to occur with tense, and with mood. The irrealis marker occurs directly with mood (aspect and tense are impossible). The assertive mood is -ka for SAP first and second persons, as in (11a, b, d, e), and -ti for third persons, as in (11c, f). Interestingly, in this mood two of them – the first person singular and the third person singular – may have a zero marker when they function as the subject. The third person always has a zero marker. For the first person there is no difference in using the covert marker or the overt =ni. In the sixteenth century the use of ø was the most frequent (Chamoreau 2014). We may observe in (11) the paradigm with the verb kara- ‘write’ and the habitual aspect -xín:

(11) a. kara-xín-ka / kara-xín-ka=ni ‘I write’
    b. kara-xín-ka=ri ‘You (sg.) write’
    c. kara-xín-ti ‘He writes’
    d. kara-xín-ka=ksi ‘We write’
    e. kara-xín-ka=tsi ‘You (pl.) write’
    f. kara-xín-ti=ksi ‘They write’

Purepecha distinguishes between an assertive mood and an interrogative mood in independent and main clauses. Compare (12) with (13), which has the interrogative mood -ø (this is the allomorph used after the irrealis). This language contrasts these two moods, which occur in independent clauses, with the so-called subjunctive mood -ka, which codifies the verb in a dependent clause. Compare (14a) with (15a) and (14b) with (15b).

(12)  ni-a-ka=ri
go-IRR-ASS¹/²S=S²SG‘You will go.’
(13)  ni-a-ø=ri
go-IRR-INT=S²SG‘Will you go?’

(14) a. anchi-kuri-x-ka
work-REFL-AOR-ASS¹/²S‘I worked.’
(14)b. anchi-kuri-x-ti
work-REFL-AOR-ASS³S‘He worked.’

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⁴ In aorist and habitual aspect markers, the palatal x is pronounced as an alveolar s (-s for aorist aspect, -sín for habitual aspect). This is a dialectal variation.
3. Coordinator ka

This Section is divided into two sub-Sections. In the first (3.1), I introduce the general properties of the coordinator, showing its use in interphrastic contexts. In the second (3.2), I describe the use of the coordinator in interclausal contexts.

3.1 General properties and interphrastic uses

The coordinator ka is a free and independent element that is used to link two noun phrases, as in (16), or two verb phrases, as in (17). As illustrated in (16) and (17), ka on its own establishes the coordination of two units that are functionally equivalent. The coordinator ka expresses the conjunctive coordination that may be translated by ‘and’ in English.

(16) a. t'\u{u}u \textit{ka} watsï-ti \textit{mak'u=ts'ï} ja-rha-x-\textit{ka} \\
\text{say-\textsc{aor}\textsuperscript{1/2s}=\textsc{s2sg} \text{sub}=\textsc{s1sg} \text{work-refl-\textsc{aor}\textsuperscript{sbjv}}} \\
\text{‘You and your son are similar.’}

b. pawani \textit{t'iri-a-ka}=nï \textit{juchi} jinkonikwa-o \textit{ka} \textit{mimi-o} \\
\text{tomorrow eat-\textsc{irr}\textsuperscript{1/2s}=\textsc{s1sg} \text{poss}\textsuperscript{1sg} \text{sister-\textsc{res}} \text{and brother-\textsc{res}}} \\
\text{‘Tomorrow, I will eat at my sister’s and brother’s house.’}

(17) kwara-tsi-x-ti \textit{ka} kaka-rhu-x-ti \\
\text{fall-ground-\textsc{aor}\textsuperscript{3s} \text{and break-nose-\textsc{aor}\textsuperscript{3s}}} \\
\text{‘He fell to the ground and broke his nose.’}

When over two units are coordinated, \textit{ka} always appears before the last element, as with \textit{ka piri-mpa} in (18). The other units are juxtaposed, as with Alicia, Celia, Emilio in (18):

(18) Alicia, Celia, Emilio \textit{ka} piri-\textit{mpa} ampuxi \textit{juka-tsi'-a-x-ti} \\
\text{Alicia Celia Emilio and sister-\textsc{kposs}\textsuperscript{3 louse have-top}\textsuperscript{3pl-\textsc{aor}\textsuperscript{ass}\textsuperscript{3}}} \\
\text{‘Alicia, Celia, Emilio and his sister have lice.’}
The coordinator *ka* is a free and independent element because it may function as host for an adverbial enclitic (Chamoreau 2014) to build other coordinators. In (19), the complex coordinator *ka=ru* ‘and=then’ is an adversative that may be translated by ‘but’ and in (20) *ka=teru* ‘and=other’ expresses disjunction that may be translated by ‘or’.

(19)  
\[ k’e-xa-ti \quad ka=ru \quad marhua-ta-xa-ti \]
grow-PROG-ASS3S and=then employ-CAUS-PROG-ASS3S  
‘He grows but he continues to use them (diapers).’

(20)  
\[ chi \quad kawayu \quad urapiti-x-ki \quad ka=teru \quad turhipiti-x-ki \]
POSS2SG horse be.white-AOR-INT and=other be.black-AOR-INT  
‘Is your horse white or is it black?’

Nowadays these two complex coordinators are forsaken, and are replaced by the Spanish coordinators ‘pero’ (also pronounced *peru*) for the adversative, as in (21), and ‘o’ for disjunction, as in (22). These borrowings confirm the implicational hierarchy (but > or > and) proposed by Matras (1998: 301-305, 2007: 54-56; see also Chamoreau 2007: 470-471). Purepecha, like many languages, has borrowed the elements ‘but’ and ‘or’, but not ‘and’.

(21)  
\[ mis-kurhi-s-ti \quad peru \quad piri-xa-ti \]
be.sad-REFL-AOR-ASS3S but sing-PROG-ASS3S  
‘He is sad but he is singing.’

(22)  
\[ ni-ra-a-ø \quad ama-mpa-nkuni \quad o \quad imeri \quad tata-nkuni \]
go-FT-IRR-INT mother-KPOSS3-COM or POSS3SG father-COM  
‘Will she go with her mother or with her father?’

Whatever the coordinator (*ka, ka=ru, ka=teru, peru, o*), its position is always the same: the coordinator is grouped with the following phrase (or the last one, when several elements are coordinated, as in (18)), not with the preceding one. In Purepecha, it is much more natural to make a pause before rather than after a coordinator.

3.2 Interclausal uses

The various coordinators introduced above, and in particular the conjunctive coordinator *ka*, are attested in interclausal coordination. Two different contexts exist in Purepecha: either the coordinated clauses are finite and functionally equivalent (explored in Section 3.2.1) or the coordinated clauses are not functionally equivalent. In this context, the second clause is non-finite and depends on the first one, the main clause. This interesting process is found in chain-medial clauses (described in Section 3.2.2).
Coordinated finite clauses

When two clauses are coordinated, they may have the same reference, as in (25a), or switch reference, as in (23) and (24). The two clauses may have the same tense, aspect, irrealis, or mood markers, as in (24) and (25b), but the opposite is also possible, as in (23) and (25a). The coordinator links two independent and finite clauses. Each clause can be autonomous and independent. The two coordinated clauses are functionally equivalent, having the same semantic function, with possible syntactic autonomy since they contain at least one argument and each clause has a finite verb (Haspelmath 2007). These behaviors are illustrated in examples (23), (24), and (25) with the different coordinators described above (in Section 3.1).

(23) jwata tsakapu kw’ani-ku-xa-p-ti ka tsakapu
hill stone throw-APPL3O-PROG-PST-ASS3S and stone
ma kw’iripu anta-s-p-ti
one people reach-AOR-PST-ASS3S
‘The hill was throwing stones and one stone reached people.’

(24) chi kawayu urapiti-x-ki ka=teru ima animalu turhipiti-x-ki
POSS2SG horse be.white-AOR-INT and=other DEM animal be.black-AOR-INT
‘Is your horse white or is this animal black?’

(25) a ni-ra-s-ti ka=ru kinse diya=ksë, pastori-icha
go-FT-AOR-ASS3S and=then fifteen day=S3PL shepherd-PL
arhi-ra-sën-ti ireta
say-CAUS-HAB-ASS3S village
‘He went out but for fifteen days the shepherds make noise in the village.’

b. mi-ti-xën-ka kara-ni peru=ni no u-xën-ka
open-SUP-HAB-ASS1/2S write-NF but=S1SG NEG may-HAB-ASS1/2S
‘I know how to write but I cannot […].’

Using coordinators between two clauses reinforces that these elements are grouped with the following unit and not the preceding one. The coordinator ka (and the other coordinators) may function as the host for pronominal enclitics, as in (26), although today, as in (27), the enclitic often appears after a constituent located after the coordinator.

(26) ampuxë juka-tsi-a-x-ti=kxë ka=kxë menkhu
Louse have-TOP-O3PL-AOR-ASS3S=S3PL and=S3PL always
katsï-tsi-ni ja-rha-siren-ti
scratch-TOP-NF be.there-FT-HAB.PST-ASS3S
‘They had lice and they always scratched their heads.’

(27)  
\[ \text{ka \ jini=ks}i \ ni-ra-x-ti \ jurimpitkwa \]
and there=S3PL go-FT-AOR-ASS3S straight.ahead

‘and there they have gone straight ahead.’

3.2.2 Coordinated non-finite chain-medial clauses

Within discourse coherence, a clause-chain is characterized as the “smallest unit of coherent multi-propositional discourse,” one with “the tightest, most continuous cross-clausal coherence links” (Givón 2001:355). Chain-medial clauses “carry the bulk of sequential new information in the chain and display the highest cross-clausal coherence. Their grammatical marking is the most minimal, since most threads of thematic coherence (topical referents, temporality, aspectuality, modality, perspective) remain the same” (Givón 2001:356). Chain-initial and chain-final clauses are the most finite type, while chain-medial clauses are the least finite (the degree of finiteness of chain-grounding clauses is often unpredictable, although usually they are nominalized phrases). The correlation between degree of finiteness and clause-types within the chain in discourse shows that the more referential ones and those with thematic predictability – corresponding to the highest degree of cross-clausal coherence and continuity – display less finiteness.

Non-finite chain-medial clauses in Purepecha are constructions used to facilitate thematic, referential, and aspectual continuities in discourse (Chamoreau 2016). Such strategies correlate with reduced finiteness. When the subject is the same in the discourse, reference tracking is always possible and easy; in a chain-medial clause the referent functions as the subject. In the chain-initial clause, as in (28a), the referent is introduced by the definite noun phrase \( \text{acheti-echa} \) ‘the men’ and the verb is marked by aspect. In chain-medial clauses, as in (28b) and (28c), the pronominal enclitic \( =ksi \) is attested and attached to the verb. Referential and tense-aspect-mood continuities are crucial to understanding the use of these constructions. In non-finite chain-medial clauses in Purepecha, ATIM are not expressed but are recoverable. These clauses use a non-finite -\( ni \) marker. The aspect of the narratives is usually the aorist, as in (28a). Non-finite medial clauses depend on the chain-initial clause, the independent clause, for its ATIM and subject reference. Dependent non-finite clauses are connected to independent finite clauses by means of the coordinator \( \text{ka} \), as in (28b) and (28c).

(28) a. \( \text{xasi}=ksi=nha \ \text{kustakwa} \ jinkoni \ \text{acheti-echa} \ \text{pa-s-ti}, \)
\[ \text{next=S3PL=EV music COM man-PL take-AOR-ASS3S} \]
‘They said that then the men took her with music,

b. \( \text{ka} \ \text{jikwa-ra-ni}=ksi=nha \ \text{ya}, \)
\[ \text{and bathe-CAUS-NF=S3PL=EV now} \]
\[ \text{and they said that they bathed her}, \]
c. \( \textit{ka} \ \text{ampa-} \text{-tsi-} \text{-ku-} \text{-ni} \text{=} \text{ksii=} \text{nha} \quad \text{ya.} \)
and be.clean-LOW-NCS-NF=S3PL=EV now
\textbf{and} they said that they combed her.’

When \( \textit{ka} \) is used in chain-medial clauses, the construction is ambiguous as between coordination and subordination. The morpheme \( \textit{ka} \) appears with the form for coordinated clauses, that is, as a free and independent element, but the clauses that make up the clause chaining are not functionally equivalent with the first clause, and chain-medial clauses do not possess syntactic autonomy. The chain-medial clause is coordinated with the chain-initial clause and depends on it: the initial clause contains ATIM and argument reference, while coordinated chain-medial clauses have reduced finiteness (Longacre 2007: 375). In Purepecha, these clauses use the non-finite \(-ni\) marker. The coordinator \( \textit{ka} \) is repeated at the beginning of each chain-medial clause, as in (28). But in certain chain-medial clauses the clauses are juxtaposed, as in (29b) and (29c). The coordinator \( \textit{ka} \) shows the end of a chain-medial clause, as in (29d). Using \( \textit{ka} \) in a chain-medial clause is relevant because it exhibits a high level of thematic and tense, aspect, irrealis, and mood continuities (Chamoreau 2016).

(29) a. \( \text{Teremendo anapu-echa kutsu-} \text{siraam-} \text{ti,} \)
\( \text{Teremendo origin-PL tan-HAB.PST-ASS3S} \)
‘Those from Teremendo tanned (leather).’

b. \( \text{ima-} \text{echa noampe u-} \text{ni,} \)
\( \text{DEM-PL NEG do-NF} \)
they did not do anything,

c. \( \text{no=} \text{ksii sesi xama-ra-nte-} \text{ni,} \)
\( \text{NEG=S3PL well smell-CAUS-nose-NF} \)
they did not smell good,

d. \( \text{ka no=} \text{ksii tsipi-} \text{ni} \)
\( \text{and NEG=S3PL be.happy- NF} \)
\textbf{and} they are not happy.’

To sum up: Purepecha has a free and independent coordinator \( \textit{ka} \) that may occur alone between words, phrases, and clauses. Only one occurrence of \( \textit{ka} \) is necessary to coordinate two units. In the case of various words, phrases or clauses are coordinated, \( \textit{ka} \) only occurs once, before the last coordinated unit (except in certain occurrences of chain-medial clauses). The other units are juxtaposed. With words, phrases, and finite clauses, the coordinated units are functionally equivalent and possess possible syntactic autonomy. This is not the case in the contexts of coordination of chain-medial clauses that are coordinated but dependent on the chain-initial clause. In Purepecha, there is a clear distinction between coordination (linkage of two independent clauses,
where both are coordinated), chain-medial clause (linkage of an independent clause with a dependent clause, where the latter depends on the former and both are coordinated) and subordination (linkage of an independent clause with a dependent clause, where the latter is embedded in the former; see Section 4). Literature has also described the second construction as a medial verb or as co-subordination (Foley & Van Valin 1984, Haspelmath 1995).

4. ka used in subordinate finite clauses

Purepecha is one language in which subordinate clauses are usually finite. The verb has markers of tense, aspect, irrealis, and mood. Pronominal enclitic and switch reference are possible as illustrated in (30). Non-finite subordinate clauses also exist for same reference complement clauses, as in (31), and purpose clauses, as in (32). In non-finite subordinate clauses, the verb is marked by the overt non-finite marker -ni, no tense, aspect, irrealis, or mood, no subordinator, no pronominal enclitic, usually same-subject and same intonation contour (for more details, see Chamoreau 2016).

(30) arhia-nha-siren-ti tanoko, [jimpoka=ksi kw’iripu-echa
tanha-li-siren-ka]
say-PAS-HAB.PST-ASS3S Tanaco SUB=S3PL person-PL
join-body-HAB.PST-SBJV
’Tanaco was called because people were gathering together.’

(31) ero-ta-xa-ka [k’ama-ta-ni prontu]
hope-CAUS-PROG-ASS1/2S finish-CAUS-NF soon
‘I hope to finish soon.’

(32) Kumicho incha-parha-ku-x-p-ka [para eskwela arhia-t’a-a-ni]
Ocumicho enter-LONG.EXT-NCS-AOR-PST-ASS1/2S for school say-IT-O3PL-NF
‘I had entered into Ocumicho to teach them.’

In this Section, our aim is to describe the different elements that occur with the marker -ka in finite subordinate clauses. As introduced in Section 1, subordination in finite clauses is expressed by the presence of -ka in two positions: one that begins the subordinate clause and another at its end, suffixed on the verb that is usually positioned at the end of the clause. In this clause, -ka is no longer a conjunction as with coordination, because it always depends on another element. The dependent markers -ka shows clausal embedding. At the beginning of the subordinate clause, the marker -ka forms a complex subordinator with another different element, delimiting the clause and indicating the type of clause: it may introduce a relative clause, a complement clause, or an adverbial clause. These markers are listed in Table 3 and described in Section 4.1.
Table 3. *Subordinators*\(^5\)

<table>
<thead>
<tr>
<th>Relative clause</th>
<th>Complement clause</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Subordinators</strong></td>
<td><strong>inka / inki / enka / enki / =nka / =nki</strong></td>
</tr>
<tr>
<td><strong>Relative clause</strong></td>
<td><strong>iska / iski / eska / eski</strong></td>
</tr>
<tr>
<td><strong>Complement clause</strong></td>
<td><strong>iska / iski / eska / eski</strong></td>
</tr>
<tr>
<td><strong>Adverbial clause</strong></td>
<td><strong>eka / eki</strong></td>
</tr>
<tr>
<td><strong>Temporal / Condition</strong></td>
<td><strong>inka / inki / enka / enki</strong></td>
</tr>
<tr>
<td><strong>Locative / Temporal</strong></td>
<td><strong>iska na / iski na / eska na / eski na</strong></td>
</tr>
<tr>
<td><strong>Manner</strong></td>
<td><strong>jimpoka / jimpoki</strong></td>
</tr>
<tr>
<td><strong>Reason</strong></td>
<td><strong>nak’iruka / nak’iruki</strong></td>
</tr>
<tr>
<td><strong>Concessive</strong></td>
<td><strong>peeka / peeki</strong></td>
</tr>
<tr>
<td><strong>Hypothetical</strong></td>
<td><strong>parake / paraki</strong></td>
</tr>
</tbody>
</table>

At the end of the clause, the marker *-ka* on the verb has been referred to as a “subjunctive” mood in the Purepechan tradition because it appears on the verb in the position occupied by the morphemes of this category (Capistrán 2002, Friedrich 1984, Monzón 2004, Wares 1984). However, *-ka* on the verb is a morphological constraint for the subordinate clause regardless of the type of clause; therefore it is impossible to use another mood in this type of clause (Chamoreau 2009: 103-105). In this paper, I keep the label “subjunctive” even if it does not correspond to the traditional notion of the subjunctive as contrasted with the assertive mood. This marker *-ka* is described in Section 4.2.

4.1 *-ka* at the beginning of the subordinate clause: different kinds of subordinator

The subordinator constitutes the first element of the subordinate finite clause. As listed in Table 3, the subordinators possess various forms depending on the kind of subordinate clause they introduce. The marker *-ka* always combines with another element to form the subordinator. These two elements form a complex element analyzed in synchrony as a single morpheme. Despite this relational outcome, the source of the element with which *-ka* forms a subordinator is often transparent.

In relative clauses, the marker may have various forms: *inka* as in (33), *enki, enka, inki*, *=nka* as in (34), and *=nki*. The latter two forms function as enclitics and may appear after a noun, independent pronoun, deictic pronoun, or demonstrative, as in (34). They elide the first vowel in

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5 As explained in note 1, I use the label ‘subordinator’ to refer to all the markers that occur in the different types of subordinate clause. In Table 3, I present various dialectal forms because they are relevant for diachronic explanations (see Section 4.1).

6 The variation between *-ka* and *-ki* is currently present in Purepecha as a dialectal variation (Chamoreau 2007, 2009: 268-273). The variation between *-ki* and *-ka* has not been explored. In the sixteenth century, *-ki* seems to have been the most frequent form attested for the subordinators (Gilberti 1987 [1558]: 35), while *ka* was used for the coordinator. The problem is that for the sixteenth century, data from only the Eastern area exist: this is the area in which nowadays *-ki* is used with more frequency to build the subordinator. By contrast, in the Western area *-ka* is generally used to build the subordinator and no data from the sixteenth century are known. In this paper, I only use examples with *-ka*. Otherwise, the vowel variation and change between *e* and *i* is well attested in Purepecha (Chamoreau 2009).
comparison with the full forms inka or inki. The source of the form that may be analyzed as in-ka is the form inte-ki (sometimes transcribed as jinte-ki, with initial velar that has been lost) attested in the sixteenth century (see note 6 for the variation between -ki and -ka). The element inte is a distal demonstrative pronoun (Gilberti 1987 [1558]: 25), as in inte werantupinti-cha in (33). In the subordinator inka, the demonstrative pronoun has lost the unaccented segment te that appears just before -ki. The use of the demonstrative pronoun as the source for the relative subordinator is cross-linguistically widespread (Heine & Kuteva 2002: 113-115).

(33) tsimanhi-e-x-ti=ksi=nha inte werantupinti-cha [inka=ksi=nha
two-PRED-AOR-ASS3S=S3PL=EV DEM orphan-PL SUB=S3PL=EV
tâte-empa-ni ka ama-mpa-ni no ka-nko-rhe-nka-ø-ka]
father-KPOSS3-OBJ and mother-KPOSS3-OBJ NEG have-INTS-body-IT-AOR-SBJV
‘They said that there were two orphans who did not have a father and mother.’

(34) [ima=nka jini ja-ø-ka] juchiti mimi-i-x-ø-ti
DEM=SUB there be.there-AOR-SBJV POSS1SG brother-PRED-AOR-ASS3S
‘That one who is there is my brother.’

In complement clauses, the marker is iska, as in (35), or iski, eska, eski (see Table 3 above). The source for is- is the adverb of manner, isi ‘thus’. The current form is a grammaticalization of the marker isi-ki attested at the beginning of complement clauses in the sixteenth century (Gilberti 1987 [1558]: 135-136). The two variations between e/i and -ki/-ka are also present in the various forms (see note 6). The evolution from an adverb of manner to a complementizer is another well-known process of grammaticalization (Heine & Kuteva 2002: 258).

(35) wanta-x-ti=kkî [iska no=kkî ukhuri-echa biajari-ø-ka]
tell-AOR-ASS3S=S3PL SUB NEG=S3PL opossum-PL travel-AOR-SBJV
‘They told that the opossums have not traveled.’

In adverbial clauses, different subordinators exist depending on the contexts of use. The temporal subordinator is eka, as in (36). This subordinator is also used for condition, as in (37). The use of the same marker for these two contexts has been cross-linguistically described and is due to an absence of distinction of degrees of expectability (Thomason et al. 2007: 257-258). The source for the first part of the marker e seems to be the proximal demonstrative pronoun i ‘this’, displaying the same variation between e/i as described above in note 6. In the sixteenth century, the form was iki (Gilberti 1987 [1558]: 35, Lagunas 1983 [1574]: 56).
When Rosita’s mother had returned to her house, her uncle did not see.

We will kill the chicken if you would come.

For the locative adverbial clause, the same form as for the relative marker is used, inka: compare the marker inka in the relative clause in (33) and the locative adverbial clause in (38). Nevertheless, the source for the locative subordinator is different. For the marker in the relative clause, the source is the demonstrative inte. For the locative subordinator, the source is the deictic pronoun jini, and the grammaticalization has moved from jini-ki attested in the sixteenth century (Medina Plaza 1998 [1575]: 49 [81]), to the marker inka (or inki), as in (38). In Purepecha, demonstrative pronouns and deictic pronouns are related, as they are built on the basic deictic form ji (Chamoreau 2004).

They said that he submerged himself where there was water.

The subordinator for the manner-adverbial clause is built with the juxtaposition of the complementizer eska (see above, example 35) and the interrogative pronoun na ‘how’, as in (39):

Rosita, all the days, got up early to grind how her mother-in-law told her.

In the adverbial reason clause, the subordinator is jimpoka, as in (40): the instrumental postposition jimpo and -ka.
Another example is the concessive subordinator, *nak’iruka*, as in (41). This is a complex form built with the morpheme *nak’i* ‘which’ and the adverbial enclitic for politeness =aru, that is *nak’i=aru* ‘which=politeness’. The element -ka is attached to this complex form.

(41) *kw’iripu xarha-narhi-sín-ti eka ikia-ni ja-ø-k’a,*  
People show-PRINC-HAB-ASS3S SUB be.angry-NF be.there-AOR-SBJV  
*[nak’iruka no wanta-ni ja-a-ka]*  
SUB NEG tell-NF be.there-IRR-SBJV  
‘People show when they are angry although they will not tell.’

The subordinator for the hypothetical adverbial clause *peeka*, as illustrated in (42), is borrowed by Purepecha from the Spanish *puede que* ‘may be that’. The behavior of this element correlates with the other types of subordinator in Purepecha, as it is built as a complex form with -ka.

(42) *arhi-siren-ti=ksi [peeka Maria arhi-nha-am-ka]*  
tell-HAB.PST-ASS3S=S3PL SUB María tell-PAS-HAB.PST-SBJV  
‘They told that maybe she is named María.’

The last subordinator I have found in the data appears in the purpose finite clause with switch reference *paraki*. Compare the example in (43) with the example in (32). In the purpose finite clause, as in (43), the marker is borrowed from Spanish, *para que*, and appears as *paraki* or *parake* in Purepecha (this is a dialectal variation). I have never found the form *paraka*. A possible hypothesis is that this is a recent borrowing and that *ke* (or *ki*) is borrowed from Spanish because the form and the function are similar to the Spanish particle *que* (which may be why *paraka* has not been found). Nevertheless, another possibility is convergence or syncretism between the Spanish *que* and the native Purepecha element *ki* (see note 6 above). Convergence or syncretism between the two elements might have been favored because they presented a similar form and functioned in similar contexts. This topic has not yet been studied. The subordinator *paraki* is well integrated in Purepecha; it may thus be considered a complex form (and not two morphemes, as in Spanish) because it is impossible to introduce another morpheme (suffix or enclitic) between *para* and *ki*. As illustrated in (43), the enclitic pronoun always attaches to the end of the subordinator.
(43) ju-∅ kokwani paraki=ri xe-a-ka
come-IMP.SG quickly SUB=S2SG see-IRR-SBJV

‘Come quickly so that you see him.’

In summary, at the beginning of a subordinate finite clause the subordinator is always a complex form built with the form -ka (or -ki) in combination with different kinds of element that enable recognition of the subordinate clause. In this complex form, -ka has a dependent form. In synchrony, the combination of the two elements is analyzed as one morpheme. However, on the diachronic level we may propose the hypothesis that the two elements were distinguishable and functioned as two separated morphemes, but that then the two morphemes were reanalyzed as one element in which each lost its autonomy. This process is transparent in the elements peeka and paraki borrowed from Spanish.

4.2 -ka at the end of the subordinate clause: a compulsory suffix on the verb

In subordinate finite clauses, -ka modifies the predicate. All the predicates in subordinate finite clauses must have this suffix. Although the suffix is described as a “subjunctive” mood (Capistrán 2002, Friedrich 1984, Monzón 2004, Wares 1984), it does not have the characteristics of the morphemes of this category as it is compulsory and cannot be opposed to some other mood. Moreover, cross-linguistically the subjunctive mood can be opposed to an assertive (or indicative) mood at the semantic level, as in French in (44), in which the opposition between (44a) with the indicative and (44b) with the subjunctive expresses the degree of reality of the event. In (44a) the speaker indicates that he knows that this house (with red walls) exists, but in (44b) the use of the subjunctive mood expresses a doubt about the existence of such a house. In Purepecha, this opposition is impossible because the assertive mood always appears in main and independent clauses, and the subjunctive mood is the only one attested in subordinate finite clauses.

(44) a. Je cherche une maison qui
    S1SG look_for.PRS.INDC.1SG ART.INDF.FEM.SG house REL
    a des mur-s rouge-s
    have.PRS.INDC.3SG ART.INDF.PL wall-PL red-PL

    ‘I am looking for a house that has red walls.’

b. Je cherche une maison qui
    S1SG look_for.PRS.INDC.1SG ART.INDF.FEM.SG house REL
    ait des mur-s rouge-s
    have.PRS.SBJV.3SG ART.INDF.PL wall-PL red-PL

    ‘I am looking for a house that would have red walls.’
The label “subjunctive” may be explained by three factors: 1) in subordinate finite clause, the predicate must be marked by this morpheme. So this marker is associated with subordination, as is cross-linguistically true of the subjunctive; 2) this morpheme only appears in subordinate clauses and is the only mood that can be used; and 3) this morpheme is positioned at the end of the verb, in the slot for the mood.

As Purepecha is traditionally a SOV language (see above, Section 2), the verb usually appears at the end of the clause. Nowadays this is not always the case because Purepecha is changing to SVO. Nevertheless, subordinate finite clauses seem to be more conservative and present more SOV order than independent and main clauses (see examples in Section 4.1). The final position of the verb in the clause is significant, because -ka appears at the end, to close and delimit this subordinate clause. This type of clause always exhibits this schema: [SUB with -ka … V-ka]. The double -ka marking delimits the clause, underlining its subordinate and embedding status. The role of the morpheme -ka on the verb is to signal the end of the subordinate clause; it has no semantic meaning as with the other moods.

In subordinate finite clauses, tense and aspect markers are present but in a distinctive and reduced form (the irrealis and conditional retain the same form), as presented in Table 4.

<table>
<thead>
<tr>
<th>Table 4. ATIM markers in independent and subordinate clauses</th>
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<tbody>
<tr>
<td><strong>Main and independent clauses</strong></td>
</tr>
<tr>
<td>aorist</td>
</tr>
<tr>
<td>aorist – past</td>
</tr>
<tr>
<td>habitual</td>
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<tr>
<td>habitual - past</td>
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<tr>
<td>progressive</td>
</tr>
<tr>
<td>progressive - past</td>
</tr>
<tr>
<td>continuative</td>
</tr>
<tr>
<td>continuative - past</td>
</tr>
<tr>
<td>irrealis</td>
</tr>
<tr>
<td>conditional</td>
</tr>
</tbody>
</table>

The aorist aspect is codified -x in an independent or main clause, and -ø in a subordinate clause, as illustrated in (40), while the aorist aspect and past tense are -x-p in an independent or main clause, and -p in a subordinate clause, as shown in (36).

The habitual aspect marker is -xin in an independent or main clause, as in (41), and retains the same form in a subordinate clause, as in (45). In independent clauses, habitual aspect and past tense markers appear as -sïnan, as in (39), or as -sïren, as in (42) (a lot of formal variations exist for these morphemes when they appear together: see Friedrich 1975: 184-185). In the subordinate finite clause two forms have been found: -sïren, as illustrated in (30), and a reduced form, -am, as in (42).
(45) ari-xîn-ti [iska cho-narhi-xîn-ka]
say-HAB-ASS3S SUB be.afraid-PRINC-HAB-ASS1/2S
‘He (always) says that I am afraid.’

The progressive aspect marker is -xa in an independent and main clause, as in (19). In a subordinate clause, this aspect has an analytic form: it is built with the non-finite verb and the ja- ‘be there’ auxiliary, as in (46). Note that the auxiliary appears with the aorist aspect. The progressive aspect and past tense present a similar process: the markers for independent and main clauses are xa-p-, as in (23), whereas in dependent clauses an analytic construction is attested, as in (47). In this context the ja- ‘be there’ auxiliary is marked by the aorist aspect and the past tense, encoded as -p-. In these two contexts, the subjunctive mood presents the form k’a.7

(46) kwhiripu xarha-narhi-sîn-ti [eka ikia-ni ja-o-k’a]
people show-PRINC-HAB-ASS3S SUB be.angry-NF be.there-AOR-SBJV
‘People show when they are angry.’

(47) no=kxî nia-ntsâ-x-p-ti [jimpoka=kxî t’iré-ni ja-p-k’a]
NEG=S3PL come.back-IT-PST-ASS3S SUB=S3PL eat-NF be.there-AOR.PST-SBJV
‘They didn’t come back because they were eating.’

The irrealis and conditional present a similar form in independent and subordinate clauses: the irrealis is -a, as in (37) in an independent clause and (43) in a subordinate clause, and the conditional is pirin-, as illustrated in (48) in an independent clause and (37) in a subordinate clause.

(48) Pacanda anapu-echa pa-piîn-ti
Pacanda ORIG-PL take-COND-ASS3S
‘Those from Pacanda should carry it.’

To sum up: At the end of a subordinate clause -ka always appears suffixed to the verb, as a morphological constraint. It appears in the same position as the mood, after the aspect, tense, and irrealis markers; this is why this morpheme is traditionally treated as a subjunctive mood. However, in fact its role is to show the end of the subordinate clause and it has no semantic meaning, unlike the other moods. In subordinate clauses, the aspect and tense markers appear in reduced form. These two characteristics, the marker -ka requirement and the reduced aspect and tense markers, show that subordinate clauses have less finiteness than main clauses (Chamoreau 2016).

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7 For the continuative aspect and the continuative aspect with the past tense, the process is the same as for the progressive aspect and the progressive aspect with the past tense (see Wares 1974: 96-97 and Friedrich 1984: 73).
5. Conclusion: two hypotheses about the source and grammaticalization of ka

Purepecha distinguishes between coordination (linkage with a free and independent ka of two independent clauses), chain-medial clauses (linkage with a free ka, which may be repeated, of an independent clause with a dependent clause, the latter depending on the former), and subordination (linkage of an independent clause with a dependent clause, the latter being embedded in the former; the dependent markers -ka are attested). As described in this paper, in synchrony three markers with ka are attested in Purepecha: the coordinator, the marker that builds the subordinator, and the subjunctive mood. One question remains: Does a relation among these three morphemes exist?

The main, shared function of the first two morphemes is to link units, although each ka performs a different type of linkage. Thus to postulate a common source for these linking devices might make sense. Nevertheless, although the diachronic relation between the coordinator ka and the subordinator with -ka is likely, as the main function of both is linkage, the diachronic relation between these two and the subjunctive -ka is not so evident. This morpheme has two faces: it appears in the slot of the mood at the end of the verb, but its presence is compulsory in subordinate clauses and it has no semantic meaning (unlike the other moods). Its function is to signal the end of the embedded and subordinate clause. For this morpheme, I suggest a different route of evolution: the source seems to be the assertive mood marker for the SAP -ka. In the route of grammaticalization from assertive to subjunctive, the use of -ka extends to a new compulsory context of use, and has been desemanticized (no choice is possible, no modal meaning is possible). These processes have led it to look more like a linking device than a mood, and thus to adopt the main function of delimiting a clause and to play a role (in combination with the subordinator) in the process of linking a subordinate clause with a main clause.

Taking into account such parameters as weight, cohesion, and variability (Lehmann 2002) and analyzing the correlation between them, I advance the hypothesis that there have been two routes of grammaticalization. First, the free coordinator ka has given rise to the dependent and compulsory marker -ka that appears in the subordinator. The diachronic change illustrates a shift from marking coordination and independence to showing coordination and dependence and ultimately subordination and embedding. This process is depicted by the form of ka, which appears twice. I suggest five stages for this route of grammaticalization. Second, another route of grammaticalization leads from the assertive mood marker for SAP -ka to the subjunctive mood marker -ka (see Table 5).

Stage 1. Coordinator of two words or noun phrases

On the syntagmatic level, the syntactic scope of the coordinator ka is to link two functionally equivalent words or phrases. It is a free and independent element. It groups with the second unit it links to, or to the last one when several units are coordinated. Just one occurrence of ka suffices to link two or more units. On the paradigmatic level, ka presents the semantic feature of conjunctive coordinator, which may be distinguished from other types of coordinator (disjunctive or adversative). It thus belongs to a paradigm of coordinators. The coordinator ka may receive
enclitics that change its meaning (to build other coordinators). Thus the possibility of a choice of coordinator exists depending on communicative intention.

**Stage 2. Coordinator of verb phrases**

Using the coordinator to link verb phrases presents the same features as the coordinator of noun phrases (see stage 1, above). However, it makes up the first stage of grammaticalization as verbs constitute another context of use for the coordinator *ka*. In a coordinated verb phrase, phrases have high thematic reference as well as tense, aspect, irrealis, and mood continuities.

**Stage 3. Coordinator of finite clauses**

The following stage involves the use of *ka* as a clausal coordinator, which often incorporates thematic reference and tense, aspect, irrealis, and mood continuities. In this stage, the coordinator *ka* maintains the features presented above for stage 1. However, a change occurs at the syntactic level, as it links clauses and not phrases. Following Heine & Kuteva (2002: 83), coordinators used with NP appear to provide one source for clause-connecting markers (‘and’).

**Stage 4. Coordinator of chain-medial clauses**

This is an intermediate stage: On the paradigmatic level, its features are similar to those described for the coordinator in stage 1, but on the syntagmatic level the changes are more significant. Here *ka* remains a free and independent coordinator, but the two coordinated units are not functionally equivalent. Chain-medial clauses depend on the independent clauses, that is, chain-initial clauses, for their ATIM reference. A second syntactic feature is that *ka* is more bound: it often occurs at the head of each coordinated clause (various *ka* are used, not just one with the last coordinated clause). Therefore, the repetition of *ka* thus indicates the dependency of the clauses.

**Stage 5. Marker at the beginning of a subordinate clause**

The marker -*ka* is a bound element that loses its autonomy. It occupies a fixed slot and is always attached to another lexical or grammatical element to build a subordinator. It always appears in the same position, at the beginning of a subordinate clause. It thus links two functionally non-equivalent clauses. The presence of this morpheme is compulsory at the beginning of each subordinate clause. On the paradigmatic level, -*ka* displays desemanticization, as it constitutes part of a complex morpheme and does not have a semantic feature on its own (it is combined with different types of element). The consequence is a change of paradigm (or decategorization for Heine & Kuteva 2007: 32-53), in which -*ka* no longer belongs to the paradigm of coordinators but to the paradigm of subordinators. There is no semantic choice: -*ka* is always suffixed to another element, whatever the communicative intention.
The specific route of the subjunctive mood

In a subordinate clause, -ka is always a suffix and appears twice (at the beginning, forming the subordinator, and at the end, on the verb), delimiting the embedded subordinate clause. In the second occurrence, -ka is suffixed to the verb and modifies it. The presence of the suffix -ka is compulsory because of the type of clause; no syntactic or semantic choice is possible, unlike with the other moods. For this morpheme, I suggest a different route of evolution: the source seems to be the assertive mood marker for the SAP -ka, because both appear on the predicate in the slot of the mood after aspect and tense markers. It is seen as a member of the paradigm of mood because of its position at the end of the verb, but it has a specific position in this paradigm as it is not possible to contrast it with another mood. In Purepecha, the assertive mood may be contrasted with the interrogative mood, and the imperative mood may be contrasted with the exclamative mood (see Chamoreau 2009: 100-108). In the route of grammaticalization from assertive to subjunctive, the use of -ka extends to a new compulsory context of use, and it has been desemanticized (no choice is possible, no modal meaning is possible). These processes have led it to look more like a linking device than a mood and thus to adopt those devices’ main function of delimiting a clause and to play a role in the process of linkage (in combination with the subordinator) of a subordinate clause with a main clause. The result is that it is more closely associated with the syntactic configuration of embedding – marking the end of this type of clause and indicating that the clause delimited by the two occurrences of -ka is subordinated to a main clause – than with a semantic modal meaning. This is why its position in this paradigm is marginal, as it cannot be contrasted with another mood. Cross-linguistically, according to Bybee et al. (1994: 236), the subjunctive mood marker may have the indicative mood marker as its source. They explain that “subjunctive uses occur near the end of grammaticalization paths; whether they are from indicatives or from modal elements, their restriction to subordinate clauses comes late in their development. A related point is that they are more semantically reduced”.

In Table 5, I present the five stages of grammaticalization from the coordinator to the subordinator (built with -ka and another element) in the left-hand column and the stage from the assertive mood marker for the SAP to the subjunctive mood on the right.

<table>
<thead>
<tr>
<th>Table 5. Stages of grammaticalization of ka</th>
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</thead>
<tbody>
<tr>
<td>Noun phrase coordinator</td>
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<tr>
<td>&gt; Verb phrase coordinator</td>
</tr>
<tr>
<td>&gt; Finite clause coordinator</td>
</tr>
<tr>
<td>&gt; Chain-medial clause coordinator</td>
</tr>
<tr>
<td>&gt; Subordinator (-ka with another element)</td>
</tr>
</tbody>
</table>

The route of grammaticalization from coordination to subordinator has been cross-linguistically demonstrated (see for example Harris and Campbell 1995: 290). This process is not uncommon in several languages. This grammaticalization appears to be part of a more general process whereby markers of phrase coordination change into markers of clause coordination that
then give rise to subordination markers (Heine and Kuteva 2002: 43). In Purepecha, the route includes an intermediate stage, coordination of a dependent clause. Interestingly, the last stage of the first route of grammaticalization and the grammaticalization of the subjunctive mood create two dependent markers -ka that indicate subordination and embedding. The doubling of -ka is a way to encode the high degree of dependence of this type of clause.

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Abbreviations

AOR aorist
APPL applicative
ART article
ASS assertive
CAUS causative
CENTRIF centrifugal
CENTRIP centripetal
COM comitative
COND conditional
DEF definite
DEM demonstrative
DIM diminutive
EV evidential
FOC focus
FEM feminine
FT formative
GEN genitive
HAB habitual
IMP imperative
IND independent
INDC indicative
INDF indefinite
INS instrumental
INT interrogative
INTS  intensive
IRR  irrealis
IT  iterative
KPOSS  kinship possessive
LONG.EXT  long exterior area
LOW  lower area
MID  middle
NCS  no coreferential subject
NEG  negation
NF  non-finite
O  object
OBJ  objective case
PAS  passive
PRINC  principal area
PST  past
PL  plural
POSS  possessive
PRED  predicativizer
PROG  progressive
PRS  present
REFL  reflexive
S  subject
SBJV  subjunctive
SG  singular
SUB  subordinator
SUP  superior area
TOP  top area

References


