title: The Origin of Purpose Clause Markers in Proto-Omagua-Kukama

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1 Introduction

This article explores the diachrony of three purpose clause markers (PCMs) in Proto-Omagua-Kukama (POK), the ancestor of two closely related languages of northwest Amazonia that belong to the Tupí-Guaraní (TG) language family, one of the principal language families of lowland South America. My goal is to explain an absolutive pattern of control in these clauses, otherwise unattested in the language, via an account in which PCMs have as their origin a combination of TG nominalizers, a purpose suffix, and a postposition. I show that a similar system is attested in at least one other TG language, Kamaiurá, although this similarity has been obscured by sound change and the replacement of grammatical morphemes. This similarity is important for the description of purpose clauses in other TG languages, as well as for the reconstruction of PCMs in Proto-Tupí-Guaraní (PTG).

Proto-Omagua-Kukama PCMs include two suffixes and an enclitic that attach directly to verbs (Table 1). The distribution of these markers is in part constrained syntactically: *-tara requires the omission of the grammatical subject (A, S) of the purpose clause in which it appears, while *-maira requires the omission of the grammatical object (P); the omitted argument is coreferential with the absolutive argument (S, P) of the matrix clause. The other marker, *=tsenuni, requires all arguments to be present (see below).

Table 1: Purpose Clause Markers

<table>
<thead>
<tr>
<th>OMG</th>
<th>KK</th>
<th>POK</th>
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<tbody>
<tr>
<td>-tara</td>
<td>-tara</td>
<td>*-tara</td>
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<tr>
<td>-mira</td>
<td>-mira</td>
<td>*-maira</td>
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<tr>
<td>=smuni</td>
<td>-tsen(u)</td>
<td>*=tsenuni</td>
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This work builds on the in-depth description of this system in Kukama-Kukamiria by Rosa Vallejos, with the specific aim of providing a historical explanation for that system, shared by Omagua and reconstructable to POK. Data on Omagua comes from fieldwork carried out by me and my colleagues since 2010. More broadly, this work is embedded in an effort to reconstruct POK (O’Hagan 2011, 2014; O’Hagan et al. 2013, 2016).
to better understand the role of grammaticalization in its history, and to delineate the ways in which its lexicon and grammar diverge from the typical profile of TG languages. I show that POK has repurposed or lost two constructions that play a role in the expression of purpose in TG languages of different subgroups, namely the ‘gerund’ construction and a construction based on a proclitic that exhibits the shape ta= in many languages. Relatedly, a firm understanding of the grammatical features that are preserved in POK – as evidenced by the forms that constitute its system of purpose clause marking – is important to the study of these languages, as previous work beginning with Cabral (1995) has emphasized the lexical and grammatical divergences observable in POK in order to argue that it is not genetically related to the rest of Tupí-Guaraní, a stance that I do not assume here.

It will be useful to bear in mind the phylogeny of the TG family (Figure 1). This tree differs from traditional ones in exhibiting a substantially articulated structure. Beginning with Rodrigues (1984/1985), the family was divided into eight subgroups in a rake-like configuration; Rodrigues and Cabral (2002) present additional structure that contradicts that provided here in numerous ways. Relevant in what follows are the positions of Paraguayan Guaraní, a member of the Guaranian subgroup, Tupinambá and POK, their ancestor a sister to the Southern subgroup, and Kamaiurá, which is a sister to the rest of the TG family.

Figure 1: Tupí-Guaraní Classification (Michael et al. 2015)

After briefly reviewing common sources of PCMs crosslinguistically (§1.1) and the history and sociolinguistic situation of Omagua and Kukama (§1.2), this article is organized as follows: §2 provides background on TG grammatical topics necessary to understanding the proposals laid out subsequently; §3 reviews the same set of grammatical topics in POK and how they have changed, as well as the distribution of purpose clause markers; §4 lays out the account of the origin of these markers; and in §5 I conclude.

The reader is referred to Michael et al. (2015) for more detailed discussion.
1.1 Sources of Purpose Clause Markers

Heine and Kuteva (2002) outline sources for PCMs in the world’s languages that can be grouped into three broad categories: case markers (e.g., allative); verbs (e.g., ‘go to’); and complementizers. Verbs grammaticalize into PCMs principally through serial verb constructions in isolating languages; since TG languages are not isolating and typically do not exhibit an overt complementizer, I home in on case markers. Heine and Kuteva (2002: 39), citing Seiler (1985), illustrate the use of a goal suffix in Imonda in multiple syntactic environments. In (1a), the suffix -m attaches to a noun denoting a physical goal in space, while in (1b) it attaches to a noun denoting a metaphorical goal. In order to bring these examples in line with what follows, I will refer to construals as in (1b) as ‘purpose interpretations’. Lastly, in (1c), the same suffix -m attaches to a verb, a construction I will refer to as a ‘purpose clause’: here the event of searching for fish is construed as the purpose of the event of going.

(1) a. nē -m -uagl -n
   bush -GOAL CPL go -PST
   ‘He has gone to the bush.’

b. tēta -m -fōhō -n
   game -GOAL PL- go.down -PST
   ‘They have gone hunting for game.’

c. tōbētō soh -m -ka uagl -f
   fish search -GOAL I go -PRES
   ‘I am going to search for fish.’

The functional overlap between case and purpose clause marker relates to POK PCMs in two ways. I show that two POK markers *-tara and *-maira contain as part of their origin a suffix reconstructable as *-ram that exhibits the interpretations in (1b,c), but not the spatial goal interpretation in (1a). Second, I show that the third POK marker, *=tsenuni, derives from a postposition with a similar meaning, namely ‘ahead of’.

Another source of PCMs not discussed by Heine and Kuteva are nominalizers. This is especially true of South American languages, as exemplified by Aymara, in which the ‘agentive’ suffix is formally identical to the ‘goal embedder’ (2).

(2) a. q’ipi ‘carry on back’
   q’ipiri ‘porter’

b. qama ‘stay at home’
   qamiri ‘rich person’

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61 = first person; 2 = second person; 3 = third person; ABS = absolutive; AGT = agent; ALL = allative; ARG = argumental; AUG = augmentative; CAUS = causative; CL = clausal; COMP = comparative; COREF = coreferential; CPL = compleventive; DEM = demonstrative; DESID = desiderative; DIST = distal; ERG = ergative; EXCL = exclusive; FS = female speech; FUT = future; GER = gerund; HORT = hortative; INACT = inactive; INCL = inclusive; INE = inessive; INTR = intransitive; ME = male ego; MS = male speech; NEG = negation; NOM = nominal; NOMZ = nominalizer; PAT = patient; PL = plural; PP = postposition; PRES = present; PROG = progressive; PROX = proximal; PST = past; PURP = purpose; REL = relational; SG = singular; SS = sentence suffix; SUBJ = subject; TR = transitive.
c. sirwis al(a)-iri-w(a) sarā
beer buy-GOAL-ss go.1>3FUT
‘I’m going to buy beer.’
(adapted from Hardman (2001))

This functional overlap relates to POK PCMs in that *-ram combines with stems derived with two nominalizers, one of which targets an agent.

1.2 History & Sociolinguistic Situation

At the time of European contact in 1542, the Omagua dominated the banks of the Amazon River from the mouth of the Napo in Peru to the mouth of the Juruá in Brazil (de Carvajal [1542-1934]), but by the middle 17th century (de la Cruz [1653-1900]) Omagua settlements had relocated to riverine islands, likely in response to severe population decreases brought on by European disease (Myers [1992]). In late 1685, the Bohemian Jesuit Samuel Fritz began proselytizing among the Omagua, going on to found nearly 40 mission settlements, one of which was christened San Joaquín de Omaguas (Anonymous [1731]). By the late 1690s, disease and increasing Portuguese slave raids had nearly eradicated remaining Omaguas. Some scattered in an area that would come to be controlled by Carmelite missionaries and the Portuguese crown, while others fled upriver, ultimately settling in a community on the left bank of the Amazon River by the middle 1720s. This community, also known as San Joaquín de Omaguas (SJQ), became a prominent Jesuit settlement until the expulsion of the Jesuits from Spanish territories in 1767 (Uriarte [1776]).

Around 1880, as part of the large-scale dislocation of indigenous populations due to plantation-style labor and the rubber boom, the Jesuit settlement was abandoned, and SJQ, along with most Omaguas, moved slightly upriver to its current site. By the 1920s, language shift had begun to take hold, following some forty years of increasing contact with and immigration of outsiders and the later arrival of a Spanish-language school. Children born in the 1930s, unlike those born in the 1910s, did not acquire Omagua as a dominant first language, but rather grew up with Spanish as a dominant first language. Today the youngest of six known speakers of Omagua was born in 1932.

The Kukama were first contacted by Juan de Salinas y Loyola, a Spanish conquistador, on the lower Ucayali in October 1557 (Jiménez de la Espada [1897: LXXIII]). The Kukamiria, in contrast, resident on the lower Huallaga, likely had contact with Spaniards beginning in 1611, when Diego Vaca de Vega began undertaking incursions into the upper Marañón basin. The first significant Kukamiria and Kukama settlements were Santa María de Huallaga (1649) and Santa María de Ucayali (1651–1652), respectively (Stocks [1978: 116-117]).

The Kukama resisted Spanish and Jesuit influence more than did the Omagua. Like the Omagua, however, they suffered from disease during this period, especially following a Spanish expedition to the Ucayali in 1644. In July 1670 the Jesuit Juan Lorenzo Lucero founded Nueva Cartagena de Lagunas, a settlement that would become the headquarters of

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the Jesuit mission in the region, as well as the pivotal site through which Jesuits relocated Kukamas from the Ucayali to the Huallaga basin, where they could more easily be controlled.

In the early 19th century, the Kukama began a rapid expansion into the lower Marañón, founding the modern-day city of Nauta in 1829 (Larrabure i Correa 1905). This expansion continued, and, in combination with the social upheaval of the late 19th century, results today in Kukama communities being found in the greater Ucayali, Marañón, Nanay, and Itaya basins. The Kukamiria, who speak a mutually intelligible dialect, continue to occupy the lower Huallaga. Vallejos (2016: 10, 22-23) posits 20,000-25,000 ethnic Kukama in ~120 communities, with ~1,000 speakers. Like Omagua, all speakers of Kukama are also native and dominant speakers of Spanish and most are above 60 years of age.

2  Tupí-Guaraní Background

In this section I examine a set of TG grammatical topics necessary for understanding the proposals I lay out in §4 as to the origin of PCMs in POK, especially as those proposals concern the combinatorial possibilities of the grammatical morphemes that have come to compose these PCMs. I begin with the semantic status of roots and their interaction with a suffix *-a (§2.1) before moving on to nominalizers (§2.2), nominal temporal reference and purpose (§2.3), purpose clauses (§2.4), and postpositions (§2.5). I rely on the morphosyntactic reconstruction of PTG developed by Cheryl Jensen (1998a). I emphasize here that the morphosyntactic reconstruction of PTG is still very much in its infancy, and certain phenomena discussed in this article will benefit from more detailed reconstructions, especially as those involve the evolution of morphosyntactic features across the family as a whole. One result of this state of affairs is that I at times make conditional or speculative statements regarding the history of or relation between particular morphemes; I submit that these are sufficiently marginal so as not to detract from the general proposal under consideration.

2.1  Argumental *-a

Partee (1987) has argued that noun phrases may contextually be one of three semantic types – ‘referential’ (type $e$), ‘predicative’ (type $⟨e, t⟩$), or ‘quantificational’ (type $⟨⟨e, t⟩, t⟩$) – and that a number of type-shifting operations allow for the derivation of one type from another (e.g., via determiners). Chierchia (1998) homed in on the semantic type of bare nouns, arguing that kinds (or generics) are of type $e$. In this way, nominal reference can be seen as a distinction orthogonal to semantic type, since kinds, strictly speaking, do not refer, and for this reason Chierchia relabels Partee’s ‘referential’ category as ‘argumental’. Here it is sufficient to note that inherently argumental nouns can function as verbal arguments without further operation, while inherently predicative nouns cannot. Importantly, however, predicative nouns in this framework are not necessarily able to predicate in the traditional sense in which verbs do, although they may. Rather, they are simply non-argumental. This framework provides a precise vocabulary for the description of related phenomena in TG that play a role in the development of POK PCMs.

11Below I refer to the type of a bare noun as the inherent type of a noun, or nominal root.
Queixalos (2006) has proposed that all roots in PTG were inherently predicative, and thus that all nouns functioning as arguments, irrespective of their referentiality, were derived via the suffix *-\text{a}.\footnote{Elsewhere this suffix is referred to as ‘nuclear case’ in various grammars, ‘nominal case’ (Jensen 1998a), or ‘argumentative case’ (Cabral 2001; Rodrigues 2001), among others (see Queixalos (2006: 260)). It may also combine with verbal roots, in which case it is often described as an event nominalizer (Jensen 1998a: 540), and it is evidence of this sort that has contributed to the debate over the distinction between noun and verb in TG languages (contributions to Queixalos (2001) \textit{inter alia}), outside the scope of this article. See Queixalos (2001), Rodrigues (1996), and Rose (2002) for more discussion of this suffix.} That nouns derived via *-\text{a} exhibited this interpretational flexibility can be appreciated in (3), in which both the subject and object are marked with -\text{a}, even though only the subject refers.\footnote{I alter Seki’s glosses in order to make them more transparent relative to the description here.}

\begin{enumerate}
\item[(3)] kunu?um -a kiwaw -a o- ?awiki -potat o- uw -a wite boy -ARG comb -ARG 3ERG- make -DESID 3COREF- father -ARG COMP
\end{enumerate}

‘The boy wants to make a comb like his father’s.’


Nouns functioning as predicates, in contrast, optionally combined with *-\text{a} (with different referential properties), as can be seen in (4). In a Chierchian framework, then, both argumental and predicative nouns predicated in PTG. These various functions ultimately lead Queixalos (2006: 265, emphasis in original) to describe *-\text{a} as deriving ‘an expression that is capable of referring, and not an expression that in fact refers’. In what follows I refer to this suffix as the ‘argumental suffix’, since it is minimally required for the derivation of verbal arguments.

\begin{enumerate}
\item[(4)] a. je= tutir -a morerekwat 1SG.ABS= uncle -ARG chief
  ‘My uncle is (a) chief.’
\item b. je= tutir -a morerekwar -á 1SG.ABS= uncle -ARG chief -ARG
  ‘My uncle is the chief.’
\end{enumerate}


The productivity of *-\text{a} varies across TG languages: in most languages it has become sensitive to the phonological shape of the root to which it attaches. In Tupinambá, for example, vowel-final roots never combine with the reflex of *-\text{a}.\footnote{For languages of this type it will be useful to think of the argumental suffix as exhibiting a null allomorph -Ø that occurs following vowel-final roots.} In POK the situation is different: all roots were vowel-final, the result of the freezing of different vowels to the right edge of consonant-final roots (O’Hagan 2011: 24-27). One such vowel was the argumental suffix *-\text{a}. As a result, all POK nouns were both argumental and predicative.

### 2.2 Nominalizers

In addition to the argumental suffix, PTG exhibited a number of deverbal nominalizers. Jensen (1998a: 539-544) reconstructs seven: an event nominalizer (her ‘action nominalizer’),
an agent nominalizer, a circumstantial nominalizer, two patient nominalizers, a clausal nominalizer, and an adverbial nominalizer. With the exception of the event and clausal nominalizers, these nominalizers are striking in that they must combine with *-a if the resulting stem is to be argumental. This can be seen in Tupinambá in (5).

(5) poj -tar -a  
feed -AGT.NOMZ -ARG  
‘he who gives food’  
Tupinambá (Barbosa 1956: 260)

Two nominalizers warrant further attention, namely the agent and clausal nominalizers. Jensen (1998a: 540) reconstructs three allomorphs of the agent nominalizer (*-ar, *-tsar, *-tar) that occur with consonant-, vowel-, and diphthong-final verb roots, respectively. POK has generalized the diphthong-final allomorph to all phonological environments, and, due to the freezing of argumental *-a, inherited the form *-tara (see §3.1). Jensen (1998a: 542) reconstructs the clausal nominalizer as *-bařé, inherited in POK as *=mai. Unlike the agent nominalizer, the actual morphosyntactic distribution of *-bařé varies substantially across TG languages in some languages it can nominalize an argument in any syntactic position, while in others it is more restricted in some way (ibid.). I will generally refer to it and its reflexes as a ‘clausal nominalizer’, unless greater clarity is required.

### 2.3 Nominal Temporal Reference and Purpose

TG languages are often described as exhibiting a two-way temporal distinction on nouns, typically referred to as ‘nominal tense’, with past and future values. Jensen (1998a: 511) reconstructs an ‘anticipatory suffix’ (i.e., nominal future tense) with three allomorphs (*-ram, *-wam, *-am) that occur with vowel-final, labial- and velar-final, and alveolar-final verb roots, respectively. This suffix attaches directly to a nominal root and derives a predicative stem, as evidenced by the fact that it must combine with *-a in order to function as an argument, as shown in (6). (In (7), a stem derived with a reflex of *-ram lacks the argumental suffix and does not function as an argument, as is expected.)

(6) iɓá -ram -a  
fruit -NOM.FUT -ARG  
‘that which will be fruit, future fruit’  
Tupinambá (Barbosa 1956: 101)

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15It is not clear that PTG *-bařé was a suffix. It exhibits clitic-like properties in Omagua and Kukama, and participates, along with other right-edge verbal elements, in various differential orderings (e.g., in Tupinambá), suggesting that it and these other elements may have been clitics or perhaps not bound in any way at all. For the ease of exposition I will preserve Jensen’s suffixal analysis, simply indicating the Omagua and Kukama forms as clitics where appropriate.

16See §3.1 for examples of POK *=mai as a nominalizer of the subjects of intransitive verbs and the objects of transitive verbs, a syntactic distribution that I label ‘inactive’ in the gloss.

17See Tonhauser (2007) and Thomas (2014) for detailed semantic analyses of the reflexes of this suffix in Paraguayan Guaraní and Mbyá, respectively.

18I alter Barbosa’s glosses in order to make them more transparent relative to the description here.
Furthermore, it seems that in PTG a future interpretation was not basic to *-ram: in isolation (i.e., in the absence of *-a) it seems to have encoded purpose (7), while in combination with *-a it encoded future temporal reference (6). Because of this I will refer to *-ram and its reflexes as a ‘purpose suffix’. We can think of it as a suffix that licensed an adjunct.

(7) maʔamuaʔ -a karamema -ram Mara o- potat
what -ARG gift -PURP Mara 3ERG- want
‘What does Mara want for a gift?’
Kamaiurá (Seki [2000] 111)

The distinction between purpose and future temporal reference has collapsed in languages that have lost coda nasals (e.g., Paraguayan Guaraní and Mbyá). This is because reflexes of *-ram are -rā in these languages, and in being vowel-final, they do not combine with the reflex of *-a. As such, -rā comes to express both purpose and future temporal reference: in (8a) the noun suffixed with -rā can be a core argument, although it need not be (cf. a possible translation with ‘for’); in (8b) it is an adjunct licensed by -rā and cannot be a core argument, as seen in the presence of the direct object vaca ‘cow’.

(8) a. a- vendə soroʔo -rā
1Sg- sell meat -RA
‘I am selling for/future meat.’

b. a- vende che- vaca soroʔo -rā
1Sg- sell 3Sg- cow meat -RA 20
‘I am selling my cow for meat.’
Paraguayan Guaraní (Tonhauser [2006] 296)

Both Jensen (1998a: 544) and Barbosa (1956: 259) show that the agent suffix and purpose suffix may co-occur, yielding the sequence (for diphthong-final roots) *-tar-am. Similarly, both Jensen (1998a: 544) and Barbosa (1956: 254) show that the clausal nominalizer and the purpose suffix co-occur (9), yielding the sequence *-baʔé-ram.

(9) i -wasu o- s- asaʔ -baʔé -ram -a
water -AUG 3ERG- 3ABS- cross -CL.NOMZ -PURP -ARG
‘he who will cross the river’
Tupinambá (Barbosa [1956] 256)

It is these two sequences that I propose to be the source of two of the POK PCMs (see §3.4); similar sequences appear in the description of PCMs in Kamaiurá (§2.4).

2.4 Purpose Clauses

Purpose clauses are underdescribed in the grammars of many TG languages, frequently described only as part of two polyfunctional constructions, one traditionally referred to as

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19 See Tonhauser ([2006] 292-302) for the polyfunctionality of Paraguayan Guaraní -rā in this vein.
20 Here ‘A’ and ‘B’ refer to two paradigms of person markers in Paraguayan Guaraní; ‘RA’ is a gloss of the morpheme -rā as itself by Tonhauser.
the ‘gerund’ or ‘dependent serial verb’, the other a directive construction involving a verbal proclitic that often exhibits the shape ta= and some other variable final enclitic. In this section I examine purpose clauses in Kamaiurá, which approximate those observed in POK. In contrast to the grammatical morphemes discussed in the preceding sections, there is no reconstruction of PTG purpose clauses, and so the degree to which this system can be projected to the proto-language remains an open question (see §4.4).

Kamaiurá purpose clauses are distinguished based on coreference restrictions between arguments of the matrix and purpose clauses. Purpose clause verbs are marked with ‘distinct nominalizing affixes selected according to the valence of the verb and the function of the nominal expression in the dependent clause’ (Seki 2000: 187, translation mine) 21.

Kamaiurá employs the gerund construction when subjects are coreferential (10).

(10) paku -a a- juka we- karu -m
paca -ARG 1SG.ERG- kill 1SG.COREF- eat -GER

‘I killed a paca to eat.’ (Seki 2000: 187) SUBJ = SUBJ

Three constructions are employed when coreference holds between the P argument of the matrix clause and an argument of the purpose clause, all of which involve a combination of reflexes of the abovementioned nominalizers and purpose suffix. When coreference is with the A argument of the purpose clause, the construction consists of a verb suffixed with the agent nominalizer -tar, followed by the ‘attributive’ suffix -am (11) 23. The purpose clause verb exhibits no person markers.

(11) Sapa˜i -a a- en˜o joi moi -a juka -taR -am
Sapa˜i -ARG 1SG.ERG- call.to snake -ARG kill -AGT.NOMZ -PURP

‘I called to Sapa˜i so he would kill the snake.’ (Seki 2000: 187) P = A

When coreference is with the S argument of the purpose clause, the construction consists of a verb suffixed with the instrument nominalizer -taw, followed similarly by -am (12). The purpose clause verb exhibits absolutive person markers.

On the useful suggestion of an anonymous reviewer, it is worth clarifying here that coreference in this article does not have to do with a set of verbal prefixes in TG languages that obligatorily express coreference with some other C-commanding referent. This series of verbal prefixes is traditionally known as ‘Set 3’ prefixes, or ‘coreferential’ prefixes, and is reconstructed for PTG by Jensen (1998a: 498) and discussed at greater length by Jensen (1998b). However, this series was lost in the development of POK (O’Hagan 2011: 27), part of a broader pattern of loss of bound person inflection. It may be seen in data from other TG languages, as is the case with the Kamaiurá example in (10), but since it did not interact with the development of PCMs in POK, it is not discussed further here.

The PTG gerund, in many languages exhibiting an allomorph resembling -bo (here a cognate -m in Kamaiurá), was inherited in POK as *-wa, following regular dissimilation (unrounding) of *o adjacent to *β. Today *-wa survives only in Kukama, where it continues to function as a gerund and not a dedicated marker of purpose clauses. See O’Hagan et al. (in prep) for more details.

Jensen (1998a: 507, 511) reconstructs an ‘attributive’ suffix *-ramo and a nominal future tense suffix *-ram (with various allomorphs), which, if Jensen’s reconstruction is correct, have merged in Kamaiurá. For reasons that will become clear in §3.2, I gloss the Kamaiurá attributive suffix -(c)am as PURP, as I contend that, at least in the constructions under discussion here, it is a reflex of the PTG nominal future tense suffix and not the attributive per se.
(12) Kawa a- enōj i- jo -taw -am
Kawa 1SG.ERG- call.to 3.ABS- go -INSTR.NOMZ -PURP
‘I called Kawa to go.’ (Seki 2000: 187)  P = S

When coreference is with the P argument of the purpose clause, the construction consists of a verb prefixed with the patient nominalizer emi-, followed by -am (13). The purpose clause verb exhibits absolutive person markers.

(13) ka?aher -a a- mepi je= r- emi- etsak -am
paper -ARG 1SG.ERG- buy 1SG.ABS= REL- PAT.NOMZ- see -PURP
‘I bought the book to read [it].’ (Seki 2000: 188)  P = P

Kamaiurá exhibits an additional construction for expressing purpose that places no restrictions on coreference between arguments of different clauses. This construction consists of the ‘hortative’ proclitic ta= and the enclitic =katu. (14a) is an example of coreference between grammatical subjects, while (14b) is an example of coreference between matrix clause A and purpose clause P.

(14) a. o- juka paku -a t= o- ?u =katu
3- kill paca -ARG HORT= 3- eat =PURP
‘He killed a paca to eat [it].’ (Seki 2000: 202)  SUBJ = SUBJ
b. ka?aher -a e- karaj ta= je= r- ea?a =katu ne= r- ehe
letter -ARG 2SG- write HORT= 1SG= REL- remember =PURP 2SG= REL- PP
‘Write letters so I remember you.’ (Seki 2000: 201)  A = P

2.5 Postpositions
The final grammatical morpheme involved in the origin of the system of POK PCMs is a postposition, and I therefore conclude this section by noting that TG languages exhibit a rich set of postpositions that are inflected for the person of their complement via a set of prefixes that also encode the possessors of nouns, the subjects of stative (inactive) intransitive verbs, and the direct objects of transitive verbs, i.e., following an absolutive distribution. One of these postpositions has been reconstructed by Jensen (1998a: 514) as *enoné ‘ahead of’. The third-person absolutive prefix with which it co-occurred has been reconstructed (ibid.:498) as *ts-, yielding the sequence ts-enoné ‘ahead of it’. (See §3.3 for further details.)

3 Proto-Omagua-Kukama Background
In this section I review the reflexes of the TG morphemes discussed in §2 in POK and describe its system of PCMs, in order to provide the background to demonstrate that,

[23]There is no cognate of Kamaiurá ta= in either Omagua or Kukama, and consequently it is assumed not to have been inherited in POK. The POK hortative – i.e., a directive oriented toward first persons plural – is the preverbal particle *yapá, a grammaticalization from *yapan ‘run’. Jussives, or third-person directives, are formed on a similarly preverbal particle *tVnV (where the quality of the vowels is undetermined).

generally speaking, the grammatical morphemes involved in the origin of the POK PCMs were retained both as productive grammatical morphemes and frozen in the purpose clause markers themselves. Note that the phonological reconstruction of POK is ongoing (O’Hagan and Michael in prep), and that the reconstructions of POK present in what follows are my own, based on a systematic comparison of Omagua, Kukama-Kukamiria, and their most closely related TG relatives, e.g., Tupinambá. Where correspondences between PTG and POK forms are not straightforward, I have added footnotes explaining the relevant changes involved. Also note that TG roots underwent a massive process of restructuring in POK, by which inflectional person prefixes were frozen to form new unanalyzable roots, person coming to be exponed by multiple series of independent and phonologically bound pronouns. This process is orthogonal to the development of purpose clauses, and so, with some exceptions, I do not discuss the expression of person further here or elsewhere, but the reader is referred to O’Hagan (2011) for more details.

3.1 Nominalizers

The PTG agent nominalizer *-taR was inherited in POK as *-taRa, having combined with the argumental suffix (cf. PTG *-ta-a in §2.2). In Omagua it functions as an agent nominalizer (e.g., kamata-tara ‘work’-AGT.NOMZ ‘worker’), that is, the deverbal nouns that it derives correspond to A and SA arguments and are argumental. The clausal nominalizer *-βaʔé was inherited in POK as *=mai27. In both daughter languages it targets the subjects of stative intransitive verbs (SP) and the objects of transitive verbs (P), as in (15), in which it attaches to fiRi ‘be muddy’ and to fukai ‘dig’.

(15) a. kati yuká fiRi =mai =kwaRa
  over.there DEM.DIST.MS be.muddy =INACT.NOMZ =INE
  ‘over there in that mud’ Omagua (MCT:C4.S1)

b. ta= atika =smuni ta= fukai =mai
  1SG.MS= throw.out =PURP 1SG.MS= dig =INACT.NOMZ
  ‘...in order to throw out what I had dug up.’ P
  Omagua (MCT:C2.S3)

26 Kukama data for this research comes from the published and unpublished work of Rosa Vallejos and her colleagues (2015; 2016); Omagua data comes from the author and colleagues’ fieldwork; Tupinambá data comes from Barbosa (1951, 1970).
27 This is demonstrable through regular sound change. Three of the clausal nominalizer’s four segments are relevant: the voiced bilabial fricative, the glottal stop, and the final vowel. PTG *? was lost in POK, and final *e raised to *i. The correspondence β:m, however, presents a more complicated picture, since *β otherwise corresponds to POK *w (i.e., POK merged PTG *β and *w.) In this vein, it is clear that *β in some roots participated in a series of phonological alternations that included *p and *m. Although these latter two segments are not discussed as variants of *-βaʔé for Tupinambá, Tupinambá does exhibit *m*baʔé ‘thing’ (Barbosa 1951: 85), almost certainly the historical source of the clausal nominalizer; and *m* regularly corresponds to POK *m. Thus POK either retains an archaic form of the clausal nominalizer, or the reconstruction of the clausal nominalizer needs to re-evaluated. (Note that the frustrative -βiʔá, inherited into POK as *=mia (and not †=wia), is also an instance of this correspondence.)
### 3.2 Nominal Temporal Reference and Purpose

The PTG purpose suffix *-ram was inherited in POK as *-ra. The loss of the coda nasal due to regular sound change\(^{28}\) as in Paraguayan Guaraní and Mbyá, in combination with the fact that all roots in POK are vowel-final, means that the purpose and future interpretations are not distinguishable simply by form. (Contrast, for example, (6) and (7), in which argumental *-a disambiguates in this way.) Nevertheless, the morphosyntactic behavior of POK *-ra is not identical to Paraguayan Guaraní and Mbyá -rā (cf. (8)): in POK, nouns suffixed with *-ra are not core arguments, but adjuncts, as in (16). That is, nouns in this construction always receive a purpose interpretation, as is expected given the fact that stems derived with PTG *-ram, the ancestor of POK *-ra, were not argumental in PTG (see \(^{2,3}\)).

(16) ta kaitsa iwira =kana =ui ta uka =ra\(^{29}\)
1SG.MS cut tree =PL.MS =PROX.PST 1SG.MS house =PURP

‘I cut trees for my house.’
Kukama (Vallejos 2016: 304)

However, nouns suffixed with *-ra may be nominalized via a reflex of *=mai, in which case they function as core arguments and receive a nominal future interpretation. This is shown in (17): in this text the narrator describes his conscription into the Peruvian army; the clothes in question are not previously owned by the narrator, and will only become his clothes, so to speak, once they are given to him.

(17) rana= yumi tana= firu -ra =mai
3PL.MS= give 1PL.EXCL= clothes -PURP =INACT.NOMZ
‘...they gave us what would be our clothes...’
Omagua (LHC:2011.07.12.1)

The examples observed in (16) and (17) illustrate two different morphosyntactic patterns involving *-ra: in the former it derives an adjunct that behaves like any other adpositional phrase in the language; in the latter it derives a stative intransitive verb that can be nominalized. The use of *=mai in (17) is in a sense parallel to the use of argumental *-a that we have seen in PTG and other daughter languages. Recall, however, that POK does not exhibit a productive reflex of PTG *-a, and there is no general derivation of argumental nouns in POK, since all nouns are inherently argumental. Because of these facts, we will set this construction aside in our discussion of POK purpose clause markers.

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\(^{28}\)In contrast to the freezing of different vowels to consonant-final roots, POK occasionally lost a final consonant instead, e.g., Tupinambá pem ‘weave’ [Barbosa 1970: 195], but POK *yupe (†yupeša, †pema). (N.b., yu is a reflex of an irregular series of absolutive prefixes that occurred with monosyllabic verb roots in PTG, which have been reanalyzed as part of verb roots in POK.) This process likely resulted in an intermediate *-rā, which, given that POK merged oral and nasal vowels, yields the reconstructable *-ra.

\(^{29}\)Note that =ra is analyzed as a clitic in Vallejos (2016: 304-307). However, the nominalizer -n, a reflex of POK *=mai (see 4.2) that occurs to the right of =ra, is analyzed as a suffix (ibid.:118-121), strongly suggesting that =ra is also a suffix, as it is in Omagua.
### 3.3 *ts-enoné > *=tsenuni

The PTG inflected postposition *ts-enoné was inherited in POK as *=tsenuni. The absolute prefixes with which this root combined were not inherited as productive morphemes in POK (see above), but were instead frozen to nominal, verbal, and postpositional roots, resulting in new, unanalyzable roots (O'Hagan 2011: 17-42). PTG *o raised to *u in POK, and final *e raised to *i categorically. In Omagua, *e subsequently raised to i and affricates lenited to their fricative counterparts, resulting in =smuni. In Kukama, final syllables of many, but not all, grammatical morphemes underwent apocope, resulting in modern -tsenu.

### 3.4 Purpose Clauses

Two POK PCMs exhibit syntactic constraints on their distribution: *-tara requires the omission of the grammatical subject (A, S) of the purpose clause; *-maira requires the omission of the grammatical object (P). The omitted argument is coresferential with the absolute (S, P) argument of the matrix clause. The third PCM, *=tsenuni, requires all arguments to be overt: it may be used in the same contexts as *-tara and *-maira, in other configurations of coreference not subsumed by *-tara and *-maira (e.g., coreference with matrix A), as well as in instances in which no coreference holds between clauses. This system remains intact as such in both Omagua and Kukama, and in the examples that follow I illustrate the distribution of these markers using examples from the two languages interchangeably. There I bracket the purpose clause, indicating omitted arguments with ‘Ø’ and applying in the first line of interlinearization the same subscript to them as their coreferent in the matrix clause. PCMs themselves are in boldface.

#### 3.4.1 *-tara

The examples in (18) are instances in which the S argument of the matrix clause is coresferential with the omitted grammatical subject of the purpose clause. Note that, in both Omagua and Kukama, transitive purpose clauses with -tara exhibit a preverbal object, as with ipica ‘fish’ in (18b). This is a marked word order in both languages – where unmarked order is SVO – and in 4.1 I show that this has a diachronic explanation.

(18) a. tsa= mena_i utsu =ui ... [Ø_i aya -tara]
   1sg.fs= husband go =PROX.PST ... [Ø hunt -PURP]
   ‘My husband went ... to hunt.’
   Kukama (Vallejos 2014: 52)
   S = S

b. tsi= papai usu ipasu =kati [Ø ipira sikii -tara]
   1sg.fs= father go lake =ALL [Ø fish pull -PURP]
   ‘My father used to go to the lake to fish for fish.’
   Omagua (AmHT:2011.06.13.1)
   S = A

See §3.4.3 for examples.

31 The reader is referred to Vallejos (2014) for further details on semantic and information-structural requirements on these purpose clause markers (namely notions of temporal integration, successful outcome, and the discourse status of referents), as well as for negative data in ungrammatical examples.
The examples in (19) are instances in which the P argument of the matrix clause is coreferential with the omitted grammatical subject of the purpose clause.

(19) a. papa =na irusu ina= taira, =na [O, yumisarika -tara]
   father =PL.FS take 3PL.FS son.ME =PL.FS [O play -PURP]
   ‘[Two] parents took their children to play.’ P = S
   Omagua (ZJO 2011, E-1, p. 81, AmHT, Sp. given)
b. rana= erura ta= taira, [O, nai mutsanaka -tara]
   3PL.MS= bring 1SG.MS= son.ME [O grandmother cure -PURP]
   ‘They bring my son in order (for him) to cure grandmother.’ P = A
   Kukama (Vallejos 2014: 52)

Finally, note that the agent nominalizer and the purpose clause marker *-tara are homophonous in POK. That it is homophony and not polysemy at work is not obvious, given that *-tara purpose clauses exhibit reduced verbal properties identical to the *-tara nominalizer, allowing only the causative *-ta to follow the verbal root. However, *-tara purpose clauses are incompatible with plural enclitics, a defining feature of nouns elsewhere in Omagua and Kukama, whereas the agent nominalizer is compatible with them. In §4.1 I further show that agent nominalizer and PCM *-tara have distinct etymologies.

3.4.2 *-maira

The examples in (20) are instances in which the S and P arguments of the matrix clause are coreferential with the omitted grammatical object of the purpose clause, respectively.

(20) a. ami, uri =ui [rana= yatsuka -ta -mira O,]
   grandfather come =PROX.PST [3PL.MS= bathe -CAUS -PURP O]
   ‘Grandfather comes so that they ... give (him) a bath.’ S = P
   Kukama (Vallejos 2014: 53)
b. ta= sasta ta= awati, [atawari =kana ru -mira O,]
   1SG.MS= shell 1SG.MS= corn [chicken =PL.MS eat -PURP O]
   ‘I shelled my corn for the chickens to eat.’ P = P
   Omagua (MCT:C3.S3)

It is noteworthy that *-maira purpose clauses exhibit the same set of reduced verbal properties as *-tara purpose clauses, even though, unlike the latter, there is no reason to suspect a priori that they are nominal since there is no homophonous nominalizer.

3.4.3 *=tsenuni

The examples in (21) illustrate the overt realization of all arguments in a *=tsenuni purpose clause: the first two vary the transitivity of the purpose clause verb relative to an intransitive matrix clause verb; the second two vary the transitivity of the purpose clause verb with respect to a transitive matrix clause verb.

Note that only the children are interpreted as playing in this example; I thank an anonymous reviewer for highlighting the need to clarify this point.
In the preceding examples I have shown that alignment in *-\(\text{tara}\) and *-\(\text{maira}\) purpose clauses follows a nominative-accusative distribution, in which PCMs are sensitive to the overtess of either the grammatical subject or object, while the argument of the matrix clause that controls coreference with the non-overt argument of the purpose clause follows an ergative-absolutive distribution. However, I have examined purpose clauses that contain active predicates only. In fact, a closer examination reveals that *-\(\text{tara}\) and *-\(\text{maira}\) occur only with active predicates; only *=\(\text{tsenuni}\) occurs with stative ones.

It is not surprising that *-\(\text{maira}\) does not occur with stative predicates, since it otherwise requires the omission of a P argument, which is simply absent from the argument structure of a stative intransitive verb. However, given what has been seen of *-\(\text{tara}\), and its requirement that an A or S argument be omitted, it is surprising that it does not occur with stative predicates. The fact that it does not requires an amendment to the descriptive generalizations above, namely to state that *-\(\text{tara}\) requires the omission of an A or S\(\text{S}_A\) argument. This then is reminiscent of active-stative or split-S alignment systems (Mithun 1991), and is a direct reflection of the fact that the PTG agent nominalizer *-\(\text{tar}\) targeted agents (see below)\(^{33}\)

\(^{33}\)It is potentially misleading to describe purpose clause alignment in POK as active-inactive, since neither *-\(\text{tara}\) nor *-\(\text{maira}\) make reference to S\(P\). Rather, there is simply a gap in the alignment that is filled by *=\(\text{tsenuni}\). I will continue to refer to the alignment of POK purpose clauses as nominative-accusative.
4 Origin of POK Purpose Clause Markers

In this section I develop a proposal for the origin of the system of purpose clause markers in POK that accounts both for their phonological shape as well as their morphosyntactic properties, in particular omitted arguments, coreference, and alignment. I propose that POK *-tara (§4.1) and *-maira (§4.2) originate from distinct combinations of the TG nominalizers and purpose suffix seen in the preceding sections (akin to the Kamaiurá constructions in §2.4) while *=tstenuni originates from a combination of an absolutive prefix *ts- and the postposition *enoné ‘ahead of’. I claim that the argument omission facts observed for *-tara and *-maira in §3.4.1 and §3.4.2 result from independent syntactic requirements on the suffixes that comprise these morphemes at a prior stage of the language. The constructions from which these various PCMs originated are summarized in Table 2.

Table 2: Purpose Clause Marker Origins

<table>
<thead>
<tr>
<th>OMG</th>
<th>KK</th>
<th>POK</th>
<th>PTG</th>
</tr>
</thead>
<tbody>
<tr>
<td>-tara</td>
<td>-tara</td>
<td>*-tara</td>
<td>*-tar-am</td>
</tr>
<tr>
<td>-maira</td>
<td>-maira</td>
<td>*-maira</td>
<td>*-ba?é-ram</td>
</tr>
<tr>
<td>=smuni</td>
<td>-tsen(u)</td>
<td>*=tstenuni</td>
<td>*ts-enoné</td>
</tr>
</tbody>
</table>

4.1 Grammaticalization of *-tara

I propose that the POK PCM *-tara derives from a combination of the PTG agent nominalizer and purpose suffix (< PTG *-tar-am), and for this reason the omitted argument in a *-tara purpose clause is the agent \((A, S_A)\) \(^{35}\). I have shown that PTG *-ram was inherited in POK as *-ra, and I suggest that the loss of coda nasals occurred at a time at which the affixation of the purpose suffix to the agent nominalizer could be analyzed as productive. This would have yielded two sequences at a point prior to POK, both of the shape [tara], one consisting of the agent nominalizer and argumental suffix, the other consisting of the agent nominalizer and purpose suffix, resulting in homophony between the agent nominalizer and

\(^{34}\)An anonymous reviewer has suggested that *-tara may have its origins in a combination of the diphthong-final allomorph of the PTG gerund (or ‘dependent serial verb’) suffix *-ta (Jensen 1998a: 529) and the attributive case suffix *-ramo (ibid.: 507-508). This is an interesting proposal, but is ultimately untenable because reflexes of these particular suffixes do not co-occur in any TG language, making it highly unlikely that they did in PTG and thus making them implausible ancestors of POK *-tara. (Furthermore, as indicated in footnote 22, POK inherited a separate allomorph of the gerund, namely *-wa.) The same reviewer has suggested that *-tara may originate in PTG *potar, a verb meaning ‘want’ that in many TG languages – either in full or reduced form (e.g., -tar or -ta) – has additional desiderative and/or future semantics. This is also an unlikely source for *-tara, since in Tupinambá, POK’s closest relative (Michael et al. 2015), even the more grammaticalized desiderative still has the form -pota. There is no attested process in POK whereby *-tara is derivable from *potar via regular sound change (e.g., the loss of initial po). Because of these factors, I will not develop these proposals further.

\(^{35}\)The fact that POK nouns derived with the agent nominalizer *-tara function as arguments, and that verbs suffixed with the PCM *-tara do not, lends further evidence to the proposal that POK PCM *-tara exhibits no reflex of the PTG argumental suffix *-a.
purpose clause marker ultimately retained in POK. It is the merger of oral and nasal vowels that is ultimately responsible for this homophony, as in Table 3 which tracks both the phonological shape and morphological composition of these suffixes across various changes.

Table 3: Chronology of Changes for *-tara

<table>
<thead>
<tr>
<th></th>
<th>PTG</th>
<th>VN# &gt; Ź</th>
<th>Ź &gt; V</th>
<th>roots &gt; V-final</th>
</tr>
</thead>
<tbody>
<tr>
<td>PURP</td>
<td>*-t-ar-am</td>
<td>→</td>
<td>*-t-ar-a</td>
<td>→</td>
</tr>
<tr>
<td>AGT.NOMZ</td>
<td>*-t-ar-a</td>
<td>→</td>
<td>*-t-ar-a</td>
<td>→</td>
</tr>
</tbody>
</table>

Morphosyntactically, the source of POK purpose *-tara mirrors the Kamaiurá construction seen in (11) in the combination of the agent nominalizer and purpose suffix, and in the fact that the coreferential argument of the purpose clause is omitted. By the time of POK, however, this sequence cannot be analyzed as compositional since the language lacked an agent nominalizer †-ta or †-tar. This noncompositionality holds further because, when vowels were frozen to consonant-final roots in pre-POK, the r-less allomorph of purpose *-ra (see §2.3) would have been lost, obscuring the original connection between the final vowel of this purpose clause marker and the purpose suffix *-ra that was inherited in POK.

Finally, for this proposal to fully account for the argument realization and coreference restrictions seen in §3.4.1 it needs to be elaborated in two ways. The first way concerns the direct objects of transitive verbs in a *-tara purpose clause, namely their permissibility and their order with respect to the verb. I posit that these objects were originally the only argument that could be licensed by a verb detransitivized by *-tar (i.e., in the removal of the agent argument), and that the construction more generally preserves an archaic OV word order reconstructed for PTG subordinate clauses (Jensen 1998a: 556-557).

The second way concerns the fact that not all verbs in sentences such as these would have involved intransitive matrix clause verbs, opening up the possibility that more than one verbal argument could have been available for coreference. This can be seen in (19), in which either the subject or object of the transitive matrix verb is in principle available to be coreferential with the subject of the purpose clause. Given that it is always the object of a transitive matrix verb that controls coreference, I observe that coreference came to hold obligatorily between the single argument of the purpose clause and the nearest argument of the matrix clause (i.e., to the left). In the case of an intransitive verb this would have been the subject (Sₐ), while in the case of a transitive verb this would have been the direct object (P), resulting in an absolutive pattern of control.

4.2 Grammaticalization of *-maira

I propose that the POK PCM *-maira derives from a combination of the PTG clausal nominalizer and purpose suffix (< PTG *-bɑᵢʔ-ɾam)36 Based on the same logic applied to

36 Note the monophthongization of *ai in the Omagua form -mi ø. Monophthongization regularly occurred in Kukama in non-initial position, but it is largely unattested in Omagua, with the exception of a few forms (e.g., *maai ‘what’ is maaı) that I suggest are borrowings from Kukama. This is plausible given that some Kukamas were coresident with Omaguas in Jesuit missions as early as the 1750s (Uriarte [1776]1986).
*-tara, I deduce that the nominalizer *=mai must have at some stage of pre-POK targeted only P arguments, since this is the necessarily omitted argument in this purpose clause, even though its reflexes in Omagua and Kukama target P and S. It is because of the fact that POK *-maira is composed of the nominalizer *=mai, then, that the omitted argument of a *-maira purpose clause is the P argument.

Morphosyntactically, the source of POK *-maira mirrors the Kamaiurá construction seen in (13) in the combination of a nominalizer that targets P and the purpose suffix, although in this case it is noteworthy that the form of the nominalizer is different (in Kamaiurá, emi-, of which POK exhibits no productive cognate); and the coreferential argument of the purpose clause is similarly omitted. Unlike POK *-tara, *-maira can be analyzed as compositional at the time of POK because the language also exhibited the nominalizer *=mai. However, in both modern Omagua and Kukama this compositionality no longer holds. In the former it is because the purpose clause marker has monophthongized to -mi (see footnote 36), while the nominalizer =mai has not. In the latter it is because the form of the clausal nominalizer is -mi only in a single morphological context – preceding the plural enclitic =nu (originally noted by Faust (1972: 68)37 – whereas in all other environments it has reduced to -N, a placeless nasal that surfaces phonetically as [n] word-finally.38

Similar to the direct objects of transitive verbs in a *-tara purpose clause, I posit that the subjects (A, SA) of a *-maira purpose clause were the only argument that could be licensed by a verb detransitivized by *-βalé. Thus the *-maira purpose clause exhibits an overt subject but no object (P), whereas the *-tara purpose clause exhibits an overt object but no subject. Furthermore, as in (4.1) I observe that coreference came to hold obligatorily between the object of the purpose clause and the nearest noun of the matrix clause. In the case of an intransitive verb this was the subject (SA), while in the case of a transitive verb this was the direct object (P), resulting in an absolutive pattern of control.

4.3 Grammaticalization of *=tsenuni

I propose that the POK PCM *=tsenuni derives from a combination of the PTG third-person absolutive prefix *ts- (Jensen 1998a: 498) and the spatial postposition *enoné ‘ahead of’ (ibid: 514) – cf. PTG *tsononé ‘ahead of him/her/it’. The extension of spatial elements to encode temporal relations is well attested crosslinguistically (Heine and Kuteva 2002: 141), inter alia) – as well as more generally within POK (O’Hagan 2014) – and in that light, unlike *-tara and *-maira purpose clauses, I propose that POK first employed *=tsenuni to express a temporal relation in a construction in which it appeared in the temporally posterior clause.39 This can be seen by reinspecting (21a), reproduced in (23) with a paraphrase (in scare quotes) of what the temporal interpretation would have been.

(23) yapá yini= usu parana =kati yini= yasuka =smuni ikati
HORT 1INCL= go river =ALL 1INCL= bathe =PURP there.FS
“Let’s go to the river ahead of bathing there.”

37See also O’Hagan et al. (2013) and Vallejos (2016: 118-119).
38Vallejos (2016) analyzes this nominalizer as a suffix, an analysis that does not bear on the current proposal.
39This is parallel to the polyfunctionality (in terms of spatial and temporal meanings) of English before, Spanish ante(s), and other similar instances in better studied languages of the world.
In (23) the event of bathing occurs posterior to the event of going to the river. I suggest that an implicature came to hold, by which the posterior event was construed as the purpose of the anterior event. This implicature then became sufficiently conventionalized that it resulted in the entailment observed with the purpose construction today. Regarding the morphosyntactic properties of *=tsenuni PCMs, I note that, since *=tsenuni grammaticalized from a temporal clause-linker, and because all arguments in all temporal clause-linking constructions were overt in POK (O’Hagan 2014), all arguments in the matrix and purpose clause of a *=tsenuni purpose clause are also overt. Thus no coreference is necessary, although it may hold. This in turn yields the primary difference between *-tara and *-maira purpose clauses on the one hand, and a *=tsenuni purpose clause on the other.

However, it is noteworthy that neither the temporal nor the purpose functions of reflexes of *enoné are present in any TG language of which I am aware, nor does an adposition with the meaning ‘ahead of’ appear as a common source of PCMs in the grammaticalization literature, although ones with similar meanings certainly do (see §1.1). As such, I conclude this section by noting that indirect evidence for the proposal that *=tsenuni passed through a stage in its grammaticalization in which it expressed a temporal relation of anteriority comes from two observations. First, PCMs are known to grammaticalize from markers of future temporal reference (Schmidtke-Bode 2009: 190-191); *=tsenuni is not argued to have ever been a marker of future temporal reference per se, but the temporally posterior clause in which it appears is notionally future relative to the matrix clause. Thus a clear link can be established between well attested processes by which spatial markers grammaticalize into temporal markers on the one hand, and by which markers involving notional futurity grammaticalize into markers of purpose on the other.

Second, Omagua and Kukama do not share etymologically related constructions for the expression of this temporal relation, as would be expected given the strong parallels between the two languages in other clause-linking constructions (O’Hagan 2014). This is shown in (24), in which the temporally posterior event is marked by two unrelated clause-initial particles. In Omagua, the particle is aírafi, and what follows is a finite verb phrase; in Kukama, the particle is aanan, and what follows is a nominalized verb phrase.

(24) a. \( \text{rana= } \text{umanu =suri [aírafi ta= tua =suri]} \)
\( 3\text{PL.MS= die =DIST.PST [before 1SG.MS= grow.up =DIST.PST]} \)
‘They died before I grew up.’
Omagua (LHC&AHC:2011.06.22.1)

b. \( \text{[aanun tua eyu -ari -N]} \)
\( [\text{before spirit.type eat -PROG -NOMZ}] \)
‘Before the spirit eats you...’
Kukama (Vallejos 2016: 522)

Had *=tsenuni only ever encoded purpose, POK would be expected to have exhibited a single construction for the expression of temporal anteriority because *=tsenuni would never have borne on the temporal domain. In turn, this temporal construction would be expected to have been inherited in both Omagua and Kukama. It was not inherited, however, and this suggests that POK *=tsenuni was polyfunctional in expressing a temporal relation of
anteriority and purpose, and that the former function was lost independently in Omagua and Kukama, being replaced by the distinct constructions shown above in the two languages.

4.4 POK and Kamaiurá Purpose Clauses

In this section I make comparative remarks on POK and Kamaiurá purpose clauses, in order to answer the question: why does POK not appear to have a purpose construction parallel to that involving -\textit{taw} in Kamaiurá in (12)? In other words, why does POK not appear to have a construction that targets S_{A} apart from A? To get at this, I note that there are striking similarities between the purpose clauses of the two languages. The Kamaiurá system can be thought of as involving three constructions: 1) one for coreference between subjects (the gerund); 2) one for coreference between matrix P and a variable argument of the purpose clause; and 3) one that does not require coreference (cf. proclitic \textit{ta}=). The POK system can be thought of as involving two constructions: one for coreference between matrix S/P (absolutive) and a variable argument of the purpose clause; and one that does not require coreference (*=\textit{tsenuni}). Although POK lacks an analogue to the Kamaiurá construction for subject coreference, the two remaining constructions are largely parallel in their syntactic distribution, namely one requires some degree of coreference, the other none at all.

All of the Kamaiurá subconstructions involving matrix P, unlike the other two constructions, involve nominalizers that target a particular syntactic position – A, S, or P. Furthermore, one of those nominalizers, -\textit{tar}, is cognate to the agent nominalizer involved in the origin of POK *-\textit{tara}. However, some differences obtain. First, alignment in Kamaiurá purpose clauses is ergative-absolutive, i.e., there is differential treatment of the subjects of transitive versus intransitive verbs. Second, the nominalizer that makes reference to purpose clause P is not a reflex of PTG *-\betaa\textit{pa}é, as it is in POK, but is a distinct prefix \textit{emi}-.

For the sake of consideration, if one projects the Kamaiurá system to PTG, then POK has extended the function of *-\textit{tara} to both purpose clause A and S_{A}, and developed *-\textit{ma}r\textit{a}, based on the nominalizer *-\betaa\textit{pa}é instead of the nominalizer *\textit{emi}-. Of course speaking in this way requires a thorough reconstruction of the PTG system of purpose clause marking, which is outside the scope of this article, thus claims as to directionality remain tentative. However, the fact that similar systems exist between distant subgroups of TG (Figure 1) suggests that a system not unlike that of POK or Kamaiurá existed in PTG.

I conclude this section with a possible explanation for the apparent extension of *-\textit{tara} in relation to the distribution of the -\textit{tar} purpose construction in Kamaiurá, i.e., an extension by which POK *-\textit{tara} is used in instances of coreference between matrix P and purpose clause S_{A} (12), and not just A (11). That is to note that Kamaiurá -\textit{taw} is a reflex of the PTG ‘circumstantial nominalizer’, which, like the agent nominalizer, exhibited three allomorphs (*-\textit{aB}, *-\textit{tsaB}, *-\textit{taB}) following consonant-, vowel-, and diphthong-final verb roots, respectively (Jensen 1998a: 540-541). At least one interpretation of nouns derived with this suffix was of an instrument. Like Kamaiurá, POK also exhibits a reflex of this morpheme in the instrumental nominalizer *-\textit{ta}.41 What is of note here is that POK *-\textit{ta} is another instance in which a final consonant has been lost instead of an additional vowel having been added.

\footnote{Note, however, that Seki (2000) does not describe how stative verbs participate in purpose clauses.}

\footnote{Note that this goes against O’Hagan (2011: 65-77), in which POK *-\textit{ta} was not correctly recognized as a reflex of PTG *-\textit{ta}.}
(see footnote [28]). Because of this, pre-POK verb roots suffixed with *-ta would have been vowel-final stems, and thus straightforwardly combined with the r-initial allomorph of the purpose suffix *-ram (cf. [2,3]), yielding *-ta-ra, a morphological sequence that is string-wise indistinguishable from those summarized in Table 3 above. That is, the apparent extension of POK *-tara described above might instead be due to the fact that it derives from two distinct sources, one involving a reflex of PTG *-tar and one involving a reflex of *-taβ. It is not clear how to differentiate between this possibility and the proposal laid out in §4.1 in which POK *-tara derived solely from *-tar-am, and for now I mention it merely as a potential alternative analysis.

5 Conclusion

In this article I have developed a proposal for the origin of three purpose clause markers in Proto-Omagua-Kukama: *-tara, *-maica, and *=tsenuni. This proposal accounts for a pattern of control otherwise unattested in the language, in which the absolutive argument of a matrix clause is coreferential with an obligatorily omitted argument of the purpose clause, the latter of which follows a nominative-accusative alignment. This is because the PCMs involved in it have as their origin a set of Tupí-Guaraní nominalizers with these syntactic distributions. The proposal also adds new sources of PCMs to the grammaticalization literature.

The current project builds on previous descriptive work (Vallejos 2014), and further contributes to the understanding of the role of sound change and grammaticalization in the development of POK. Morphological reanalysis is pervasive, and close attention paid to sound change leads to distinct etymologies of *-tara as agentive nominalizer and PCM (and possibly elucidates a collapse of PTG *-tar and *-taβ). I have couched the POK system in an overview of purpose clauses in Kamaiurá, a related language, and shown that two POK PCMs have correlates elsewhere in TG. Ultimately this project will be improved by a reconstruction of the distribution of PTG nominalizers (especially *-βaβê), as well as purpose constructions. To the latter end, focus should be on the gerund, ta=, and the various constructions involving nominalizers described under the rubric of purpose in Kamaiurá.

Finally, when it comes to the situation of seemingly intense language contact that gave rise to POK (Michael 2014, 2017), it is worth emphasizing the largely TG-like character of the system and the changes to it described in this article. Compared with Kamaiurá, POK maintains similar sorts of syntactically conditioned distinctions, and where such distinctions are not identical, they may possibly be explained via collapses in particular morphemes brought on by regular sound change (cf. PTG *-tar vs. *-taβ above), a phenomenon found amply outside of situations of intense language contact. In the same vein, POK inherited the gerund suffix as *-wa (see footnote 22), although it does not form part of its system of dedicated PCMs. Overall, then, the impression in this domain is one of significant maintenance of TG categories and distinctions, of which we might expect to find additional instantiations alongside the more straightforward instances of severe grammatical restructuring, for example, in the person-marking system (O’Hagan 2011). Balancing claims of atypicality in the genesis of POK with relatively common historical processes should be at the center of future scholarship on the fascinating history of the speakers of Omagua and Kukama-Kukamiria.
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