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A Reconstruction of Proto-Taranoan:
Phonology and Inflectional Morphology

by

Sérgio Meira S.C.O.

A THESIS SUBMITTED
IN PARTIAL FULFILLMENT OF THE
REQUIREMENTS FOR THE DEGREE
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ABSTRACT

A Reconstruction of Proto-Taranoan:
Phonology and Inflectional Morphology

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Sérgio Meira S. C. O.

Comparative and classificatory studies of Cariban languages, despite their long history (starting with Gilij in 1782), have been few and unsatisfactory, mainly due to the lack of necessary documentation of the languages in question. Based on a large amount of new descriptive data, as well as on published sources, the present work attempts to demonstrate the closer genetic relationship between a subgroup of three Cariban languages, Akuriyó, Tiriýó, and Karihona, the last two of which were considered to belong to very distant branches of the family in a still widely cited classification (Durbin 1977). This demonstration takes the form of a reconstruction of the main aspects of the segmental phonology and inflectional morphology (person, number, evidentiality, tense/aspect/mood) of the proto-language, which I propose to call Proto-Taranoan. A preliminary etymological dictionary, as well as some remarks on the history of the speakers, is also included.
ACKNOWLEDGEMENTS

This thesis relies heavily on the results of field work, especially among the Tiriýó, but also among the Akuriyó and Wayana-Apalaí. It would never have been possible without my participation in Dr. Spike Gildes’a Northern Brazilian Cariban Languages Documentation Project, supported by the National Science Foundation, grant number DBS-9210130. Dr. Gildes, who is also my advisor, has provided everlasting intellectual stimulation. The breadth of his vision of the Cariban family, based both on first-hand experience with the facts of the languages and their speakers and on the depth of his historical-comparative perspective, as well as his profound interest for the issues and the care and love with which he treats the details, have influenced me beyond any realistic possibilities of acknowledgement. My project colleague, Nila Tavares, with her Wayana-based ideas and criticism, has also influenced my opinion and changed my mind much more often than she herself realizes. The climate in this project has been so congenial to my own intellectual and personal growth that I can only count myself lucky for having had the opportunity of being a part of it.

Field work is never a lonesome enterprise. For the present work, it has involved contacts with the Tiriýó and the Akuriyó, who have provided me with most of the data that I have on their languages. The experience of meeting and living for some time with these people is something that I will always treasure. I especially thank my main language consultants, Pedro Asehpê, Simetu, João do Vale, and Nasau, from Missão Tiriýós, and Têmeta, from Tepoe, for Tiriýó; and Onore and Maraiamê, from Tepoe, for Akuriyó. The beauty of their languages, which has sparked my interest from the very first day, still
resounds in my ears; and I can only lament that I have not been able to hear the language of the Karihona. The Museu Paraense Emílio Goeldi, where I first saw the light and decided to become a linguist, has also contributed with encouragement and logistic support, as well as discussions of my data as they were being gathered. I especially thank Dr. Denny Moore, whose viewpoints have influenced mine in so many respects that it would be ridiculous to list them. Contacts with other field workers and researchers, from Museu Goeldi and elsewhere, have also been important; among these, I wish to mention Ana Carla Bruno, Eduardo Ribeiro, and Ana Vilacy Galucio. I am also grateful to Dr. Eithne Carlin, who I have never met in person but who has helped me more than I could expect in Surinam, and with whom I share the joys of studying the Tiriyó language. I thank the Surinamese Ministry of Education (MINOV — Ministerie van Onderwijs en Volksontwikkeling), and especially Dr. Karin Boven for her help in Paramaribo. In Brazil, my thanks go to the National Research Council (CNPq — Conselho Nacional de Pesquisa) and to the National Bureau of Indigenous Affairs (FUNAI — Fundação Nacional do Índio), who authorized my field work in the Turucumaque and Nhamundá-Mapuera areas. I also thank the Missão Tiriós, both in Belém and in the Turucumaque area, for their help and cooperation. A special note of thanks to Frei Bento Letschert, who freely shared his manuscript of a Tiriyó dictionary which was of extraordinary importance in my first contacts with the language, and whose life of dedication to the Tiriyó have won my respect in more ways than I could attempt to describe.

People at Rice have also helped me achieve a deeper understanding of Linguistics in general and of the goals of this work in particular. I thank the members of my committee, especially Dr. Timothy Pulju, whose grasp of Historical Linguistics and
experience with Indo-European have won my admiration. His insights have improved this work in several important ways, and his detailed comments have saved me from several embarrassing errors and traps. The professors of the Rice Department of Linguistics have also shaped many aspects of my view of language and of the field of Linguistics; I especially mention Dr. Suzanne Kemmer, whose deep interest in typology found resonance in mine, and Dr. Philip Davis, who has shown me how far-reaching and richly complex meaning is. I also wish to thank my fellow graduate students (John Newell, Ada Rohde, XiuHong ‘Mimi’ Zhang et al.), who, being mostly interested in issues unrelated to the ones treated here, have given proof of patience in putting up with my enthusiasm for Cariban languages, and whose friendship and joie de vivre were constantly showering me with evidence that life consists of more than the present work. Special thanks to Ursula Keierleber, the Department Coordinator, who always defended my side, and whose coffee was of paramount importance in keeping me awake during the sleepless nights that the realization of life being more than the present work has made necessary for its completion.

Last, but certainly far from least, I want to thank you, the unknown reader, to whom this work is ultimately dedicated. I have no idea who, aside from a small group of specialists, will ever be interested in reading the present work, and when that will happen, and if you will think of reading the acknowledgements. We, who care about topics such as the history and description of Cariban languages, are very few. I hope that, in spite of the concern that will be inspired by the errors and mistakes that will have remained (a work which strives to include as much detail as possible cannot, alas, be even close to free from them), you will be able to find also useful contributions. And I also hope that you will
share the happiness and joy that, in spite of the many toils, this work has brought me, so that you will be able to say, *etiam in illo tempore erant homines.*
# TABLE OF CONTENTS

Abstract ................................................................. ii
Acknowledgements .................................................. iii
Table of Contents .................................................... vii
List of Abbreviations ................................................. ix

1. Introduction ......................................................... 1
   1.1. Purpose of the present work ................................. 1
   1.2. Sources ...................................................... 4

2. The Taranoan Peoples .............................................. 8
   2.1. The Tiriyo .................................................. 8
   2.2. The Akuriyo ............................................... 11
   2.3. The Karihona .............................................. 13

3. The segmental phonology of Taranoan languages ................. 16

4. Correspondences and proto-phonemes .......................... 20
   4.1. Main correspondences ................................... 20
   4.2. Less straightforward correspondences .................. 25
   4.2.1. Correspondences involving nasal clusters .......... 25
   4.2.2. Correspondences involving reflexes of PT */c/ ...... 31
   4.2.3. Correspondences involving syllable reduction ...... 35
   4.2.4. Correspondences involving */w/- and */j/-loss .... 39
   4.2.5. Correspondences relating diphthongs ............... 42
   4.3. Idiosyncratic and problematic cases .................. 46

5. A sketch of the historical phonology of Taranoan languages ... 55
   5.1. Proto-Taranoan phonology ............................... 55
   5.2. The evolution of Karihona phonology .................. 57
   5.3. The evolution of Tiriyo-Akuriyo phonology .......... 59
   5.4. The origin of Tiriyo long vowels ...................... 60

6. Reconstructing Proto-Taranoan inflectional morphology ....... 63
   6.1. Pronouns .................................................. 63
   6.1.1. Personal pronouns ................................... 63
   6.1.2. Third-person deictics ................................ 66
   6.1.3. Interrogatives ........................................ 71
   6.2. Person marking: the O set ................................ 72
   6.3. Nouns ...................................................... 85
   6.3.1. Possession ............................................. 85
   6.3.1.1. Possessive suffixes ................................ 86
   6.3.1.2. Free NP possession ................................ 87
   6.3.2. Number markers ........................................ 89
6.4. Postpositions ................................................................. 91
  6.4.1. Postpositional inflection ........................................... 91
  6.4.2. Special cases .......................................................... 93
    6.4.2.1. The postposition *wja ~ *ja .................................. 93
    6.4.2.2. Locative and directional postpositions .................... 95
    6.4.2.3. 'Experimencer' postpositions ................................ 97
6.5. Verbs ................................................................. 98
  6.5.1. Person ................................................................. 99
    6.5.1.1. Transitive verbs ............................................... 100
    6.5.1.2. Intransitive verbs ............................................. 104
  6.5.2. Tense-aspect-modality and number-evidentiality morphology 116
  6.5.3. Imperatives .......................................................... 123
  6.5.4. *-ce Forms .......................................................... 127
    6.5.4.1. Supine and habitual past .................................... 130
    6.5.4.2. Participial ..................................................... 133
    6.5.4.3. Negatives ...................................................... 136

7. Historical morphology of Taranoan languages ........................ 143
  7.1. A sketch of Proto-Taranoan inflectional morphology .......... 143
  7.2. Diachronic change in Taranoan morphology ....................... 152
    7.2.1. The evolution of Karihona morphology ....................... 153
    7.2.2. The evolution of Tiriyo-Akuriyo morphology ................ 155

8. Some remarks on Taranoan history ..................................... 158

9. Preliminary Taranoan etymological dictionary ......................... 162
  9.1. Cognate sets ......................................................... 163
  9.2. Alphabetic list of reconstructed forms .......................... 192

Bibliography ............................................................... 195
LIST OF ABBREVIATIONS

1    first person
1+2  first person dual inclusive
1+3  first person exclusive
2    second person
3    third person
3Neg third-person negative prefix
A    subject of a transitive verb; also, anaphoric
An   animate
Agt  agent
Ak   Akuriyó
Azr  adjectivizer
Col  collective
CE   formative suffix
Cop  copula
Desid desiderative
Dir  directional
D.Pst distant past
DV   distal visible
Evid evidential
Frust frustrative
Fut  future
Gen  generic prefix
I    invisible
Impf imperfective
Im.Pst immediate past
In   inanimate
Kh   Karihona
Loc  locative
Neg  negation; negative
Num  number
Nzr  nominalizer
O    object of a transitive verb
P.Col possessor collective
Pres present
PT   Proto-Taranoan
PV   proximal visible
Psfx possessive suffix
Redup reduplication
Rept repetitive
T    participial t- prefix
TAM  tense/aspect/modality
Tir  Tiriyó
Vzr  verbalizer
1.1. Purpose of the present work.

The Cariban language family consists of 20-50 languages spoken by approximately 60,000 people in various small isolated areas of northern South America; cf. Gildea 1998 for an up-to-date general picture. The internal classification of the family is still an unresolved problem, simply because, despite the encouraging increase in the number of good grammars and dictionaries, most languages of the family remain poorly known. As Gildea points out, early attempts (from Adam 1893 to Loukotka 1968) were flawed due to the almost complete lack of reliable data. The same can be said even about more recent (and much broader) classifications such as Greenberg 1987, which relies heavily on older sources. Gildea further notes that even the three most recent specific attempts, Girard 1971, Durbin 1977 and Kaufman 1994 (ms; cf. Gildea 1998 [Chap. 1]), are so different in their details that it is impossible not to conclude that most of the groundwork is yet to be laid. This situation will certainly change, as more and better data becomes available, and a consensus classification will hopefully emerge soon.

The present work is a contribution to the establishment of the basis on which a better classification of the Cariban family can rest. It considers three closely related Cariban languages, Tiriyó, Akuriyó, and Karihona, and attempts to show that they form a tighter branch within the family. This branch was also postulated in Girard 1971 and in Kaufman 1994; both studies called it simply the Tiriyó group. Here the name ‘Taranoan’ is proposed, based on the word tarëno 'Indian person' from Tiriyó, the most widely spoken
of the three languages, as a more neutral term. Note that, in Durbin 1977, these languages were placed in different subgroups; in particular, Tiriyó and Karihona were classified as belonging to two different major branches, Northern and Southern, separated by several thousands of years. Durbin & Seijas 1973 have even explicitly denied the closer relationship noticed by Koch-Grünberg 1908:3-4 between the Hianakoto (=Karihona) and the Pianakoto (a group closely related to the Tiriyó), claiming that this \( p : h \) correspondence implied a considerable time depth. This claim of the \(*p > h\) change being very old, has already been criticized in the literature (cf. Gildea 1998 [Chap. 1]): however, Durbin’s classification, being more accessible than the others, is still the most widely cited. The evidence presented here will hopefully contribute to changing this state of affairs.

The basis for the establishment of the Taranoan branch has the form of a reconstruction of the segmental phonology and inflectional morphology of Proto-Taranoan. The methodology relies on the application of the traditional Comparative Method to data from the three languages, resulting in the postulation of sound correspondences and reconstructed protoforms, which are then listed in an etymological dictionary. This leads to the postulation of hypotheses about the development of these protoforms into their reflexes in the modern languages, which yields new criteria for their subclassification. The reconstructions are mostly based on evidence internal to the Taranoan branch. However, forms from non-Taranoan Cariban languages have been used as evidence whenever this was felt to be necessary, based on the idea that a feature shared by one Taranoan language and a sufficiently large number of non-Taranoan languages was more likely to have existed in Proto-Taranoan (and subsequently lost in the other two Taranoan languages) than to have been an independent innovation. Of course, this begs
the question: how many non-Taranoan languages are 'a sufficiently large number'? At the present moment, claiming a feature to be 'widespread' is roughly equivalent to making an impressionistic statement that may change when better data on more languages becomes available. Such claims are best viewed as working hypotheses to be confirmed or disproved by future comparative research.

Of course, this study cannot claim to be definitive, or even merely exhaustive. Since it contains a considerable amount of unpublished field data, all efforts were made to include as many details as possible (as can be seen by e.g. the large number of footnotes), so as to maximize the information content. Nevertheless, limitations of time and space have made it impossible for all the sources to be thoroughly examined, and it is more than possible that e.g. new cognate sets could be found in them. Furthermore, no effort was made to identify borrowings, except for the more obvious cases that are ultimately of European origin (e.g. Tiriýó soːpu ‘soap’, from English, probably via the Ndyuka creole language of Surinam). Loanwords from non-Taranoan languages, both Cariban and non-Cariban, must certainly exist among the cognate sets proposed here. However, what is known about the existing language families of South America does not suffice yet, in most cases, for principled exclusions to be made (e.g. Rodrigues 1985 provides evidence for several 'layers' of borrowings between Tupian and Cariban languages, but finds it hard to determine their directionality, especially for the apparently older cases). This is a topic for future research.

The present work is structured as follows. Chapter 1 contains an introduction and a discussion of the sources consulted for the reconstruction. Chapter 2 summarizes the available information on the Taranoan peoples and their languages. Chapter 3 briefly
reviews the phonological system of each Taranoan language. Chapter 4 contains the
details of the actual reconstruction of Proto-Taranoan phonology. Chapter 5 describes the
historical development of Taranoan phonology, from Proto-Taranoan to the modern
languages. Chapter 6 deals with the reconstruction of Proto-Taranoan inflectional
morphology. Chapter 7 sketches the historical development of Taranoan morphology and
proposes a subclassification based on the morphological and phonological evidence.
Chapter 8 presents some ideas about the external history of Taranoan languages based on
the subclassification; it includes a rough glottochronological estimation of the time depth
of the branch. Chapter 9 is a preliminary etymological dictionary, containing the 345
cognate sets found in the sources and their corresponding reconstructions, as well as an
alphabetic list of the reconstructed protoforms.

1.2. Sources.

Table 1 contains the sources that, on account of their wealth of lexical material or
better transcriptions, have been selected for the present study, together with the
abbreviations that will be used throughout the text.

<table>
<thead>
<tr>
<th>Abbr.</th>
<th>Source</th>
<th>Comment</th>
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<tbody>
<tr>
<td>Tir</td>
<td>Meira’s Tirió field notes.</td>
<td>Data collected in three field trips to Missão Tiriós.</td>
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<tr>
<td>Ak1</td>
<td>Gilda’s Akurió field notes.</td>
<td>Data collected by Gilda from a non-native at Missão Tiriós (1995).</td>
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<tr>
<td>Ak2</td>
<td>Meira’s Akurió field notes.</td>
<td>Data collected by Meira from natives at Tepoe (1997).</td>
</tr>
<tr>
<td>Ak3</td>
<td>Jara 1991</td>
<td>A word list with body parts and some animal names.</td>
</tr>
<tr>
<td>Kh1</td>
<td>Robayo 1986, 1987</td>
<td>A small word list, some grammar (phonology, morphology).</td>
</tr>
<tr>
<td>Kh2</td>
<td>Huber &amp; Reed 1992</td>
<td>A word list with various Colombian languages, including Kh.</td>
</tr>
<tr>
<td>Kh3</td>
<td>Koch-Grünberg 1908</td>
<td>A very rich and thorough word list, with some grammatical notes.</td>
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</table>
The Taranon languages are chronically underdescribed. Most materials on them are limited to unreliable word lists; no thorough description of their grammar has ever been made. This is reflected in the fact that three of the seven selected sources are field work notes (Tir, Ak1, Ak2).

Tir and Ak1 are reasonably good sources for phonology and morphology. Ak3 seems to be a good source for phonology, but it needs to be checked; Ak1 and Ak2 are to be preferred. Kh1 is the best Karihona source for phonology, the only one which consistently distinguishes the two central vowels /a/ and /i/, which Kh2 and Kh3 do transcribe with several inconsistent vowel symbols. Kh2 is a collection of words in more than 30 different Colombian languages. The material is presented in lexical sets: all words for a given meaning (e.g. ‘eye’, ‘sky’, ‘jaguar’, etc.) are given in the same page. This increases considerably the possibility of mistakes (e.g. attributing a word from language L1 to language L2). Kh3 also has problems: many words have several variants, which indicates some uncertainty in the transcription; however, of all the Karihona sources, it is the richest in lexical material.

Of the three languages, Akuriyó is the one that has the poorest sources. Gildea’s field notes (Ak1) were made with the help of a non-native speaker, and only during a couple of days; they mostly contain body parts and a few verb paradigms. Jara (Ak3) did have many lexical items, but many of the animal and plant names may be Tiriyó rather than Akuriyó; thus, only body part terms were considered. Meira (Ak2) collected a reasonable amount of data from native speakers, but the danger of Tiriyó influence is very high. This means that all conclusions relating to Akuriyó, or based on Akuriyó data, are slightly dubious; similarities with Tiriyó may have been artificially increased due to contact. A
better description of Akuriyó, with a richer and more reliable word list, is urgently necessary, and might invalidate some of the conclusions of the present work.

For simplicity’s sake, the original transcriptions have been made uniform. This applies to all forms cited in this work, including those that come from non-Taranoan Cariban languages. For the field notes (Tir and Ak1), the standardization consisted of regularizing the (loose) IPA notation and eliminating non-contrastive (subphonemic) details. Table 2 lists the changes for the published sources (the IPA values are approximations, according to whatever description each author gave of the phonetic value of the symbols being used; cf. also Chap. 3). Notice that the ‘rhythmic stress’ glottals from Ak1 (cf. Chap. 3) are transcribed as superscripts.

<table>
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<tr>
<th>Uniform Transcr.</th>
<th>Ak3 Original</th>
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<th>Kh1 Original</th>
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1 This symbol was used for /æ/ in almost all words; apparently, all Karihona /æ/’s sounded lax (/[e]/) to the author of this source. The same can be said about the /œ/’s, described as ‘open’ (i.e. lax, /[e]/), though no special notation was used for them.

2 The author distinguished between heterosyllabic vowel sequences and diphthongs with a small semi-circle under the second vowel of diphthongs (e.g. ɨæ, ɨu); this has been changed to w and j (aj, aw). In the other sources, no distinction was made between diphthongs and heterosyllabic sequences (cf. Chap. 3).
Data from older Taranoan sources (Mutis 1788, Vergara & Delgado 1860-61, Crevaux 1882a, for Karihona; Crevaux 1882b, De Goeje 1909 for Tiriyó, De Goeje 1909 for Akuriyó [Wama]) were considered when it seemed important (e.g. as evidence that the *p > h went through an φ phase; cf. 5.2), but they were not added to the cognate sets, due to serious transcription problems. De Goeje 1909 is an especially nice study of some features of early Tiriyó and Akuriyó.

Both in Girard 1971 and in Kaufman 1994, there were more languages included in the Tiriyó subgroup (Triometesem, Kumayena, Saluma, etc.). Sources for these languages were usually little more than short wordlists. Of all sources for Taranoan languages, the ones listed in Table 1 were the richest and most reliable: on account of this, the languages that they treat were selected as the main targets for this comparison. The minor sources and languages were left for future research.

Durbin & Seijas 1973 contain a first diachronic study of a sub-branch of Taranoan, including Guaque, Carijona (=Karihona) and Hianakoto-Umaua, which appear all to be dialects of the same language. The sources were, however, so unreliable (except for Koch-Grünberg 1908), that their results should probably be re-evaluated. Their conclusions will not be used in the present study.
Chapter 2
The Taranoan Peoples

The geographic distribution of the three Taranoan peoples considered in the present study (Tiriyó, Akuriyó, and Karihona) is shown in Fig. 1.

Figure 1.
Geographic distribution of Taranoan groups.

2.1. The Tiriyó.

The Tiriyó people (also called Trio) are the result of a mixture of different, but closely related groups, that apparently have been living scattered in the area surrounding the border between Brazil and the Guianas, especially Surinam (Rivière 1969, Frikel 1957, 1961, 1964). Historically, their economy was based on agriculture (basically cassava) and hunting. Since they did not live on the coast, they were contacted fairly late; until the
beginning of this century, only a few explorers had been able to reach their villages (Schomburgk in 1843, Crevaux in 1878, De Goeje in 1910-11, Farabee in 1915, General Rondon in 1928, Schmidt in 1940-2). This ‘explorers’ phase ended in 1948, when Frikel (then a Fransiscan missionary) first visited the Brazilian side of the area. His activities culminated in 1959 with the opening of a landing ground on the savanna around the upper reaches of the West Paru river by the Brazilian Air Force; in the same year, a catholic Fransiscan Mission was founded nearby. On the Surinam side, contacts between American Protestant missionaries and Tiriyó from the Sipaliwini and Tapanahoni rivers were equally successful, leading to the formation of two large villages, Tepoe, on the Tapanahoni, and Kwamalasamutu, on the Sipaliwini.

Both in Brazil and in Surinam, contact with the missionaries appears to have served as the first step toward an ongoing process of integration into the respective national societies. Missionary activity has had a significant impact on the Tiriyó way of life. To give one example, their original settlement pattern, which, according to Rivièrè 1969, consisted of small self-sufficient villages (50 or less inhabitants) scattered over a large area, has been disrupted; nowadays, the Tiriyó tend to concentrate around the missions, forming larger agglomerations than they ever had (the area of the Fransiscan mission in Brazil has over 700 Indian inhabitants, who live in small sub-villages very close to the Mission itself; in Surinam, Tepoe and Kwamalasamutu appear to be similar in structure); only a few smaller villages still exist. The changes are expected to continue, as contact with the national societies increases.

At present, the Tiriyó number approximately 1,500. Most of them are monolingual, since the number of speakers of the official European languages (Portuguese
in Brazil, Dutch in Surinam) to whom the Tiriyó have been exposed is rather small. In Brazil, very few Tiriyó know more than a couple of words in Portuguese. In Surinam, the same situation is apparently true for Dutch; knowledge of the other national language, Sranan (an English-based creole with strong Dutch influence), is quite widespread, but without challenging the strength of Tiriyó as the vernacular language. In both Brazil and Surinam, all Tiriyó children are native speakers of the Tiriyó language; at least for the next few generations, its survival does not seem to be threatened.¹

There seem to be two main dialects of Tiriyó, characterized by the pronunciation of /h/-clusters (/ht/, /hp/, /hk/); I have called them h-Tiriyó and k-Tiriyó. In h-Tiriyó, /ht/ is [ht], but /hp/ and /hk/ are [hɸ] ~ [:ɸ] and [hx] ~ [hh] respectively. In k-Tiriyó, /ht/, /hp/ and /hk/ occur as [:t], [:p] and [:k]; k-Tiriyó simply lacks the sound [h] altogether. Thus, words like /paako/ ‘my father’, /pihpol ‘skin’, and /mahtol ‘fire’ are pronounced [pah.ho], [pi(h).ɸo], [mah.to] in h-Tiriyó, but [pa:.ko], [pi:.pol and [ma:.to] in k-Tiriyó. The morphophonology of both dialects still supports an ‘underlying’ /h/-cluster analysis for the language as a whole (cf. Meira ms-b for details).

The Tiriyó call themselves tarəno, a word which is not synchronically analyzable. It can be compared to Karihona tarə ‘here’, which apparently was lost in Tiriyó (the present form for ‘here’, sen po, is the combination of a proximal deictic pronoun sen and a locative postposition po; its analyzability suggests a more recent origin). The last syllable may historically have been a suffix, the adverb nominalizer -no. If this is the case, tarəno

¹ The recent diagnosis of cases of HIV infection among the Tiriyó, however, casts a shadow on the prospects of their survival.
would mean etymologically ‘someone from here’, ‘a local person’. As for the word Tiriyó (pronounced /tirijo/ by the speakers), it is mostly used by non-Tiriyó to refer to the Tiriyó. The final -jo appears to be a moderately common Cariban suffix for deriving names of peoples (cf. Akuriyó, Akawayo); the etymology remains unknown.

2.2. The Akuriyó.

The first reported contact with Amerindian groups along the Oelemari river in Surinam happened during Admiral Kayser’s expedition to explore the Southern Border in 1937. A second contact took place in 1938, during another expedition organized by the Catholic missionary W. Ahlbrinck, who called these Oelemari Indians ‘Wama’ (cf. Ahlbrinck 1956). At this time, they numbered about 70-80, living in groups of 30 or fewer people, using stone axes and hunting with bows and arrows. There was no further contact for thirty years; then, in 1968, Wayana Indians from the Litani river met by chance three Akuriyó Indians in a hunting expedition along the Waramapan river (a tributary of the

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2 This possible etymology was first brought to my attention by Desrey Fox (personal communication). Cf. also the Apalaí words tara ‘here’, tarono ‘someone from here’.

3 Friel 1957:559 claimed that the word tirjó was derived from a stem watre ‘to kill with clubs’. This etymology, as had already been pointed out by Rivière 1969:17-18, is not convincing. The word that Friel mentions is in fact an idiom for ‘to kill, to destroy’, wa: tiri, literally ‘to make nothing, to annihilate’ (from wa: ‘no, nothing, nobody’, and tiri, ‘to do/make’); the word for ‘club’ is sivara:pa. The word tirjó might be related to the root tiri (possibly meaning originally ‘the makers’, perhaps an allusion to their higher technological level), but this is still speculative. A more interesting comparison may be with the word tire:wuju, the name of a (dialectally and geographically determined) subgroup of speakers of Karinya, a non-Taranano Cariban language (cf. Hoff 1968:26). There are two groups: the tire:wuju and the mura:to. The Karinya believe that the mura:to had intermarried with escaped Negroes (the word murato is clearly a borrowing from Spanish or Portuguese mulato ‘half-breed’), but not the tire:wuju. The possible cognacy between tirjó and tire:wuju is especially interesting in view of the possibility that Karinya, together with Taranano, may form a higher-order sub-branch within the Cariban family.

4 Due to the various names that were (and are) attributed to indigenous groups in South America, any attempt at understanding the history of a specific group must be full of hedges. It is very difficult to ascertain the identity of many groups mentioned by explorers up to this period (Sikiana, Pianagotto, Wama, Wajalikoele, Maipurisijana, Saloea, etc.); it is not impossible that some of these were Akuriyó (this is probably true for the Wama and the Wajalikoele; cf. Kloos 1977:114). More research on the history of indigenous populations of the Guianas is urgently needed.
Litani). Missionaries (I. Schoen, D. Ford, A. Yohner) immediately entered into contact with them. In 1970-71, the majority of the Akuriyó were convinced to move to the Tiriyó villages of Tepoe and Kwamalasamutu, where they live now. Some Akuriyó remained in their old settlements, and there seem to be uncontacted Akuriyó groups along the upper Oelemari and in the area of the Oranje mountains.

The material and cultural level of the Akuriyó struck the explorers during the first contacts as remarkably inferior to that of the Tiriyó. Basically, they were hunters and gatherers, and came into contact with more advanced techniques only after moving to the Tiriyó villages. Despite their ignorance of agricultural techniques, their familiarity with the concept of agriculture suggests that they had either had previous contacts with more advanced groups, or that their technological level may have been higher in the past than it was at the time of their first contact. According to their own tradition, they used to live much like the Tiriyó traditionally did, but they were forced to flee by the arrival of hostile Indians. They became forest dwellers, and their technological level became lower.

The Akuriyó appear to be closely related to the Tiriyó. De Goeje 1906:2 was of the opinion that Akuriyó was simply another name for the 'Trios'. Frikel even lists the Akuriyó as one of the subgroups of Tiriyó (Frikel 1957:541-62; 1960:2). The linguistic evidence suggests that the level of differentiation is higher than that of a simple subgroup: the Akuriyó seem to have lived apart from the Tiriyó for at least several centuries.

The Akuriyó who live nowadays among the Tiriyó in Tepoe speak mostly Tiriyó. The younger generation, born after 1970, does not seem to know more than a few words or sentences. Even the members of the old generation speak most of the time what looks like a mixture of Akuriyó and Tiriyó (which is facilitated by the high degree of similarity
between the two languages); they appear to have been gradually changing their original language by adopting Tiriyó words, expressions and pronunciation over the last thirty years. Although they apparently can still switch back to 'older ways of speaking' when they want, Tiriyó is clearly becoming dominant. The situation of the Akuriyó in Kwamalasamutu is presumably the same. Those who have remained in the Oelemari area may still speak Akuriyó without Tiriyó influence; new data on the language may become available if new expeditions are sent to the area.

The word 'Akuriyó' is derived from *akuri* 'agouti', with a suffix *-jo* used to derive certain names of peoples (cf. Tiriyó, Akawayo, etc.); Akuriyó would presumably mean 'agouti people'. There are many Cariban ethnic names derived from animal and plant names ending in *-jo* or *-jana*; the reasons for the association between a certain group and a certain animal or plant are not known.

### 2.3. The Karihona.

The Karihona or Carijona people (also called Umaua, Hianakoto, and Huaque or Guaque, apparently clan names) live in Colombia, near the border with Brazil, on the Caquetá and Vaupés rivers (Schindler 1977, Robayo 1987). The present population is less than 100, but it was considerably larger in previous times (Schindler 1977 mentions estimations of 4,000-10,000 Karihona from the middle of the 19th century, occupying a much larger area, from the Yarí river to the headwaters of the Apaporís river). This dramatic decline seems to be essentially due to the rapid spreading of the diseases brought by the Europeans. Robayo 1987 mentions that there may still remain 'wild' Karihona
groups avoiding contact in the area. Their economy is based on agriculture, mainly cassava, and hunting. Most Karihona men are also involved in the local rubber industry.

Contacts with them have existed since the beginning of the Spanish occupation; already in the first half of the 16th century, Spanish explorers in search of El Dorado encountered the ‘Omagua’ between the Guaviare and Japurá rivers (Koch-Grünberg 1908). After the first contacts, the Karihona started trading with the Spanish-speaking population of the Piedmont region to the northwest (at least as early as the 18th century, and probably even before that; cf. Schindler 1977), and later (in the early 19th century) with the Brazilians as well. At the beginning of the 20th century, the Karihona were participating in the extraction industry along the middle Apaporis river, working as rubber tappers; their involvement with this activity has lasted until today.

Geographically speaking, it is interesting to point out that the Karihona, whose language is closely related to Akuriyó and Tiriyó, live about 1,000 miles away from them, separated by many other Indian groups (including several Cariban groups whose languages are more distantly related to the Taranoan languages). Other local ethnic groups (Witoto, Tukano) traditionally consider the Karihona as aggressive newcomers, invaders, marauders. There are stories about their dreaded attacks, including incidents of cannibalism. Aryon Rodrigues (personal communication) believes that the Karihona may have fled from the Guianas at some point in the last five hundred years or so; although the coming of the Europeans has been suggested as a possible reason, it is not clear how this could have happened (and why, for instance, only the Karihona fled to Colombia, while other groups remained in the Guianas).
The Karihona who survived the epidemics that resulted from their contacts with the Europeans live today near La Pedrera, on the Caquetá river, and in Puerto Nare, close to Miraflores, on the Vaupés river. Their prolonged contact with the surrounding society has eroded the strength of their language, which is not being learned by children anymore; the total number of remaining speakers, all older people, seems to be in the 20-40 range. Some interest in the revitalization of their language has appeared among the Karihona (Robayo 1986); what effect this will have in the long run is still not clear.

Cognates of the word karihona are attested in several Cariban languages (e.g. Wayana karipono, and the autodenomination of the Karinya, also known as Surinam Caribs [Hoff 1968]) with the meanings ‘person, human being; Amerindian’; a reconstructed Proto-Cariban *karipona or *karipono seems very plausible. This word is the source of the words Carib and Caribbean in European languages (probably from the Karinya speakers who lived on the islands of the Caribbean, and in whose language the word had become at that time karibna or karifna). Another European word of the same etymological family is cannibal (cannibalism was apparently widespread among Cariban groups). The other Taranoan languages seem to have conserved no trace of *karipona/o.
Chapter 3

A Sketch of the Segmental Phonology of Taranoan Languages

A sketch of the segmental phonology of each Taranoan language is presented in Table 3, based on data from the sources. The Tiriyó sketch, based on a long-term fieldwork project, is certainly more reliable; the Akuriyó and Karihona sketches, based on much less fieldwork and second-hand sources, should be seen as preliminary and subject to change if better data become available.

<table>
<thead>
<tr>
<th>CONSONANTS</th>
<th>KARIHONA</th>
<th>AKURIYÓ</th>
<th>TIRIYÓ</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>t k</td>
<td>p t k (?)</td>
<td>p t k</td>
</tr>
<tr>
<td></td>
<td>b d g</td>
<td>c</td>
<td>s h</td>
</tr>
<tr>
<td></td>
<td>s h</td>
<td>m n</td>
<td>m n</td>
</tr>
<tr>
<td></td>
<td>m n j</td>
<td>r</td>
<td>r</td>
</tr>
<tr>
<td></td>
<td>w j</td>
<td>w j</td>
<td>w j</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>VOWELS</th>
<th>KARIHONA</th>
<th>AKURIYÓ</th>
<th>TIRIYÓ</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>i i u</td>
<td>i i u</td>
<td>i i u</td>
</tr>
<tr>
<td></td>
<td>e η o</td>
<td>e η o</td>
<td>e η o</td>
</tr>
<tr>
<td></td>
<td>a</td>
<td>a</td>
<td>a</td>
</tr>
</tbody>
</table>

The vocalism is the same for the three languages, featuring a typical seven-vowel system with three high vowels /i, i, u/, three mid vowels /e, η, o/, and one low vowel /a/. Long vowels occur phonemically in Tiriyó, and apparently also in Akuriyó; there is some comparative evidence (cf. 4.2.3) for their existence in Karihona as well, but the data are
not conclusive (Kh1 never transcribed long vowels; Kh3 had many long vowels, but they were inconsistent, suggesting phonetic rather than phonemic status).

Diphthongs with /i, u/ as the second element occur in all three languages; diphthongs with /e, œ/ as the second element seem to be restricted to Tiriyó (except for /œː/, a diphthong which occurs only in Akuriyó). There are no diphthongs with /a, æ, i/ as the second element.

The consonantism varies more markedly, but even here there are general traits: the three languages have only one liquid /ɾ/, usually articulated as a slightly retroflex flap with some lateral release ([ɾ]), two glides /w, j/ (with /w/ having usually little, if any, rounding, i.e. tending toward [v]), and one alveo-palatal fricative/affricate (ranging phonetically from [s] to [ʃ], occasionally affricativized in Karihona¹ and Tiriyó, and usually an affricate in Akuriyó). For the other consonants, Akuriyó and Tiriyó are very similar: both have two nasals /m, n/ and three voiceless stops /p, t, k/. The most significant difference is thus the glottal fricative /h/, which clearly exists in Tiriyó but not in Akuriyó (except for a few cases that may be mistranscriptions; cf. 6.3.1.1), and the glottal stop /ʔ/, which exists in Akuriyó but not in Tiriyó. Karihona differs from Tiriyó and Akuriyó by the presence of one further phonemic nasal /ɲ/ (which occurs phonetically in Tiriyó, and apparently also in Akuriyó, in nasal+/j/ clusters, realized as [่น]), of a voiced stop series /b, d, g/, and by the absence of the voiced stop /p/. The Karihona affricate /ʃ/ may apparently have several allophones; although Robayo consistently marks it as <č> [tʃ], Koch-Grünberg has several symbols: <ẑ> [ʒ], <j> [dʒ], <d'> [dz], <tx> [tɕ], <s> [s], often in variation.

¹ Although Kh1 transcribes [s] and [tʃ] differently, almost all cases (with only a couple of exceptions) of [tʃ] occur in the vicinity of a palatal vowel ([i] or [e]), while [s] occurs elsewhere.
Consonant clusters occur in Tiriýó and Akuriýó, but only across syllable boundaries (...VC.CV...). In both languages, the first consonant is highly restricted: it can be only a nasal, which assimilates in point of articulation to the second consonant (i.e. /mp/ = [mp], /nt/ = [nt], /nk/ = [ŋk]), or a glottal (/h/ in Tiriýó, or /ʔ/ in Akuriýó; cf. 2.1. for /h/-clusters and Tiriýó dialects). For nasal clusters, the second consonant can be any consonant; for glottal clusters, it can only be an obstruent.² In Karihona, no consonant clusters were found.

Tiriýó has a rhythmic stress system based on the predictable alternation of stressed and unstressed syllables, with stress being realized as vowel length and high pitch (cf. Meira ms-a for details). Words composed only of (C)V (i.e. light) syllables follow this pattern rigorously (e.g. /amatakana/ ‘bird sp.’, /kitapotomapoti/ ‘we (all) will make him / her help’, pronounced as [a.má:.ta.ká:.na], [ki.tá:.po.tó:.ma.pó:.ti]), with the restriction that the last syllable can never bear stress (e.g. /siririme/ ‘blue’, pronounced as [si.rf:.ri.me], not *[si.rf:.ri.me:]). Words containing a non-(C)V (i.e. heavy) syllable deviate from this pattern in that the heavy syllable is obligatorily stressed, with the rhythmic pattern resuming after it (e.g. /wempakane/, pronounced [wém.pa.ká:.ne], not *[wem.pá:.ka.ne]. Notice that vowel length does not occur in closed syllables; hence, the coda of the first syllable prevents the vowel length component of stress from being realized). This pattern of stress assignment is called iambic (cf. Hayes 1995; cf. Meira ms-a for more details). Akuriýó appears to have a similar system, with glottalization often taking the place of, and sometimes co-occurring with, vowel length; the glottal stops

² In Akuriýó, an automatic syllable-final glottal stop seems to be part of the rhythmic stress system; it frequently occurred as the main corelate of secondary stress, corresponding to vowel lengthening in Tiriýó. These glottal stops, which can precede any consonant, have not been considered here.
which seem to be expressing stress will be written as superscripts. Not all glottals result from rhythmic stress, though (cf. 4.2.2). As for Karihona, Kh1 (the most reliable source for phonology) does not mark stress; Kh2 and Kh3 often have stress marks, but they are inconsistent and frequently in disagreement. Because of this, nothing can be said here about stress in Karihona.
Chapter 4

Correspondences and Proto-Phonemes

In this chapter, the main correspondences are listed and illustrated. Each correspondence is exemplified with one cognate set (or more than one, in case of multiple reflexes). For reasons of space and ease of exposition, less important material in the cognate set is left out (e.g. specific glosses, doubtful forms); the complete form can be found in Chapter 9. Besides the cognate set, several further examples are mentioned in tables; they can also be checked in Chapter 9. The exemplification is generally not exhaustive, which is indicated by three dots (...); the exhaustive cases end in a single dot (.). A short discussion of the correspondence follows, if necessary.

In 4.1, the basic, more straightforward cases are discussed; in 4.2., the more difficult correspondences are considered; in 4.3, the exceptions and unresolved problems are listed. Chapter 5 presents a summary of Proto-Taranoan phonology, and the changes that link it to the modern Taranoan languages. Chapter 9 contains the cognate sets on which this study is based, in the form of a preliminary etymological dictionary.

4.1. Main correspondences.

Table 4 lists the main correspondences, together with the reconstructed proto-phonemes and several examples. Full details and comments (if any) on individual examples can be found in Chapter 9.
Table 4.
Basic Proto-Taranoan (PT) correspondences.

<table>
<thead>
<tr>
<th>PT</th>
<th>Tir</th>
<th>Ak</th>
<th>Kh</th>
<th>EXAMPLES</th>
</tr>
</thead>
<tbody>
<tr>
<td>*p</td>
<td>p</td>
<td>p</td>
<td>h/b</td>
<td>ARM, BEAK, BEARD, BONE, CHEST, THIGH, EAR...</td>
</tr>
<tr>
<td>*t</td>
<td>t</td>
<td>t</td>
<td>t/d</td>
<td>ARMPIT, BEARD, BONE, BREAST2, STONE, BIRD...</td>
</tr>
<tr>
<td>*k</td>
<td>k</td>
<td>k</td>
<td>k/g</td>
<td>BELLY, FAT, HIP, PENIS, SALIVA, SWEAT, NIGHT...</td>
</tr>
<tr>
<td>*c</td>
<td>s</td>
<td>c</td>
<td>s</td>
<td>BREAST1, URINE, TURTLE, STAR, SAND, FLEA...</td>
</tr>
<tr>
<td>*m</td>
<td>m</td>
<td>m</td>
<td>m</td>
<td>BREAST2, CHIN, SHOULD, SWEAT, FIRE, THAT1...</td>
</tr>
<tr>
<td>*n</td>
<td>n</td>
<td>n</td>
<td>n</td>
<td>BREAST2, EAR, EYE, FLESH, NAVAL, NOSE, YAM...</td>
</tr>
<tr>
<td>*r</td>
<td>r</td>
<td>r</td>
<td>r</td>
<td>CHEST, CHIN, ELBOW, HORN, LEG, LIVER, PENIS...</td>
</tr>
<tr>
<td>*w</td>
<td>w</td>
<td>w</td>
<td>w</td>
<td>BELLY, VOMIT, I, SUN, HEART, TREE, GOURD...</td>
</tr>
<tr>
<td>*j</td>
<td>j</td>
<td>j</td>
<td>j</td>
<td>ARMPIT, BONE, TOOTH, LIZARD, FATHER2, THO1...</td>
</tr>
<tr>
<td>*a</td>
<td>a</td>
<td>a</td>
<td>a</td>
<td>ARM, ARMPIT, BACK, BELLY, BREAST1, EAR...</td>
</tr>
<tr>
<td>*e</td>
<td>e</td>
<td>e</td>
<td>e</td>
<td>BEARD, BONE, EYE, HORN, PATH, DAUGHTER...</td>
</tr>
<tr>
<td>*i</td>
<td>i</td>
<td>i</td>
<td>i</td>
<td>FINGER NAIL, SKIN, WING, LAKE, ROOT, ANT...</td>
</tr>
<tr>
<td>*o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>BEARD, CHEST, FEATHER, NOSE, CASHEW, WASP...</td>
</tr>
<tr>
<td>*u</td>
<td>u</td>
<td>u</td>
<td>u</td>
<td>BELLY, BLOOD, BREAST1, EYE, FOOT1, HEAD...</td>
</tr>
<tr>
<td>*i</td>
<td>i</td>
<td>i</td>
<td>i/i</td>
<td>BREAST2, CHEST, FAT, THIGH, WIFE, SHAMAN...</td>
</tr>
<tr>
<td>*ə</td>
<td>ə</td>
<td>ə</td>
<td>ə/ə/</td>
<td>ARM, BONE, HEAD, SKIN, WING, STONE, THAT1...</td>
</tr>
</tbody>
</table>

Consonants:

\[
\begin{align*}
*p & \quad \text{EAR} & \text{Tir} & \text{pana} \\
*p\text{pana} & \text{Ak1} & \text{i-pana-ri}, \text{Ak3} & \text{pana} \\
& \text{Kh1} & \text{hana}, \text{Kh2} & \text{i-hana-ri}, \text{Kh3} & \text{hana}, \text{baná-ri} \\
\end{align*}
\]

\[
\begin{align*}
*t & \quad \text{SHOULDER} & \text{Tir} & \text{mota} \\
*m\text{mota} & \text{Ak1} & \text{i-mo'\text{t}a-ri} \\
& \text{Kh3} & \text{mót\text{a}-ri} \\
\end{align*}
\]

\[
\begin{align*}
*k & \quad \text{PENIS} & \text{Tir} & \text{aroki} \\
*\text{aroki} & \text{Ak1} & \text{aró':\text{i}-ri}, \text{Ak3} & \text{aroke} \\
& \text{Kh1} & \text{aroki-h\text{ə}, Kh2} & \text{aroki-ri}, \text{Kh3} & \text{j-aróki-ri} \\
\end{align*}
\]

Notice the alternation \(\text{hana} / \text{bana-ri}\) in Karihona. Robayo 1987 mentions the alternation between voiced and voiceless stops (\(t/d, k/g\)) and between \(/h/\) and \(/b/\) as a means of marking a first-person possessor (on nouns) or subject (on verbs); the form
*c

TURTLE Tir sawaru
*cawaru Ak1 sawa:ru, Ak2 cawaru
Kh3 dzáwaru

This correspondence allows the reconstruction of one fricative to Proto-Taranoan (cf. Chap. 3 for variation concerning Karihona and Akuriyó /c/). Notice that the conspicuous absence of */ti/ and */te/ sequences in the reconstructed material (cf. Chap. 9) suggests their palatalization before Proto-Taranoan; thus, some cases of *c may reconstruct to Proto-Cariban as *t (cf. Girard 1971:74 for a *t > /c/ evolution; cf. also the discussion of the 1 and 1+2 prefixes in 6.5.1.1 and 6.5.1.2).

*m

MOUTH Tir mita
*mita Ak1 mì:ta-ri
Kh1 mida

EYE Tir enu
*enu Ak1 enú?-ru
Kh1 enu:-ru, e:nú-ru, j-enú-ru {1}

*n

*t

LIVER Tir ere
*ere Ak1 ere:²-ri, Ak3 ire-re
Kh1 ere-ri, Kh2 ere-rí, Kh3 ére-ri

TOOTH Tir i-je
*je Ak1 i-je²-ri, Ak3 je-ri
Kh1 je-ri, Kh2 i-je-ri, Kh3 je-ri

*w

BELLY Tir i-waku
*waku Ak1 i-wa³:ku-ru, Ak3 i-waku
Kh1 waku-ru {1}, Kh2 i-wakú-ru, Kh3 wakú-ru

---

¹ This is the main reason for listing Karihona /b, d, g/ as reflexes of Proto-Taranoan *p, *t, *k. Cf. 6.2 for more details and the origin of this alternation.
There is one case in which Tir /j/, Ak /ij/ corresponds to Kh [3]:

CHIN
Tir i-jaramata
*jaramata / Ak3 jaramata
*jamarata Kh2 jāmarāta-ri, Kh3 jamarāta-ri

The disagreement between the sources (Kh2 with /ɜ/, Kh3 with /j/) suggests that this may be an instance of Karihona /j/ rather than /c/. It may well be the case that the Karihona /j/ approaches [3] in actual pronunciation (e.g. in Tiriyō, the sequence /ji/ comes close to being pronounced [3i]), though this is not explicitly mentioned in any of the sources.

Vowels:

*a
*e

ARM Tir apə
*apə Ak1 apə-ri
Kh2 ahi-ri, Kh3 j-ahi-ri {1}

SCROTUM Tir emu
*emu Ak1 emuʔ-ru, Ak3 emu-ru
Kh3 j-emū-ru {1}

*i
*o

SKIN\(^2\) Tir i-pihpə
*pit(i/i)pə Ak1 pihpə-ri
Kh1 hitihə, Kh2 hitihi, Kh3 hūhi

SHOULDER Tir mota
*mota Ak1 i-moʔta-ri
Kh3 móta:-ri

*u

FOOT Tir ppu
*ppu Ak1 i-puʾpu-ru
Kh2 hūhu, Kh3 buhū-ru {1}

---

\(^2\) The vowel in the second syllable was preserved only in Karihona. Since Kh1 is usually a good source for phonology, the reconstruction *pitipə seems to be a good hypothesis. However, since there are several cases of a (lexicalized) suffix -tipə (cf. BONE), the possibility of a Kh1 mistranscription (i instead of j in the second syllable) from a PT *pitipə must be taken into account, at least until more Karihona data becomes available.
There are two cases in which Tir /e/ corresponds to Karihona /ə/ (in Kh1), and one in which Tiriyó /ə/ corresponds to Karihona /e/ (and perhaps another one: cf SMOKE in 4.2.1).

<table>
<thead>
<tr>
<th>THIGH</th>
<th></th>
<th>THIS2</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Tir</td>
<td>peti, i-peti</td>
<td>Tir</td>
<td>serə</td>
</tr>
<tr>
<td>Ak1 pe:ti²^{−}-ri, i-pe:ti²^{−}-ri, Ak3 i-peti</td>
<td>*(c)(e/ə)rə</td>
<td>Ak2</td>
<td>cerə</td>
</tr>
<tr>
<td>Kh1 həti, Kh2 i-heti, Kh3 béti</td>
<td>1</td>
<td>Kh1</td>
<td>ərə</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ONLY</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Tir</td>
<td>rə:ke[ne]</td>
<td></td>
</tr>
<tr>
<td>Ak2</td>
<td>rə:ken</td>
<td></td>
</tr>
<tr>
<td>Kh1</td>
<td>reke</td>
<td></td>
</tr>
</tbody>
</table>

Since the majority of the THIGH cognates have /e/, including the other two Karihona examples, this correspondence will be considered as a case of */e/. THIS2 is harder to understand; cf. 6.1.2. ONLY looks like a possible case of assimilation, but it may also result from a transcription mistake. Notice the irregular loss of the final nasal syllable (cf. 4.2.3).

The Karihona reflexes of *ə and *i are /ə/ and /i/, respectively, according to the best source, Kh1. However, the other two sources (the ones richest in lexical material) do not consistently transcribe central vowels. Kh2 only transcribes one central vowel (/i/); Kh3, while transcribing two, often offers both as variants for the same word, which suggests that the distinction was not consistently heard. Both Kh2 and Kh3 sometimes have /i/ where /i/ would be expected, and a few times even /e/; /a/ and /i/ also occur instead of /ə/. Similar cases can be noticed for Akuriyó (Ak3), though less frequently. Until more data become available, my solution is to reconstruct the central vowel of the most reliable cognate (i.e. from Tiriyó), especially when it is confirmed by Kh1 and/or
Ak1, and to assume that it probably is the same in the other sources (i.e. the ‘true’
correspondences are: *ə = Tir ə, Ak ə, Kh ə, and *i = Tir i, Ak i, Kh i); the variation is
considered the result of transcription mistakes.

*ə  *i
HEAD  Tir i-putuə  MOUTH  Tir mita
*putuə Ak1 i-pú:pə-ri, Ak2 i-puːpə, Ak3 i-puhpə  *mita Ak1 miːta-ri
Kh1 hutuhə, Kh2 i-hutuhə, Kh3 hutuhi, butuhi  Kh1 mida

4.2. Less straightforward correspondences.

In this section, correspondences with less obvious reconstructions are reviewed.

The most important groups relate to nasal consonant clusters, to reflexes of PT */c/ , to
cases of syllable reduction and loss, to /w/-loss and diphthong formation, and to PT
diphthongs.

4.2.1. Correspondences involving nasal clusters. The four main correspondences that
involve nasal clusters in at least one Taranoan language are listed below:

<p>| Table 5. Correspondences involving nasal consonant clusters. |
|-------------------|-----------------|-----------------|-----------------|-----------------|</p>
<table>
<thead>
<tr>
<th>PT</th>
<th>Tir</th>
<th>Ak</th>
<th>Kh</th>
<th>EXAMPLES</th>
</tr>
</thead>
<tbody>
<tr>
<td>*mp</td>
<td>mp</td>
<td>mp</td>
<td>b</td>
<td>SHOULDER BLADE, SPEAK.</td>
</tr>
<tr>
<td>*nt</td>
<td>nt</td>
<td>nt</td>
<td>d/t</td>
<td>MOUTH, SHORT, ARRIVE.</td>
</tr>
<tr>
<td>*nk</td>
<td>nk</td>
<td>nk</td>
<td>g</td>
<td>BACK, STILL.</td>
</tr>
<tr>
<td>*nj-1</td>
<td>nj</td>
<td>nj</td>
<td>nj</td>
<td>AFTERNOON, HAND, HUSBAND, WE2, WE3, YOU2.</td>
</tr>
<tr>
<td>*nj-2</td>
<td>n</td>
<td>n</td>
<td>nj (/ŋ)</td>
<td>BLOOD, RAT, ANKLE, ONE.</td>
</tr>
<tr>
<td>*mm</td>
<td>mm</td>
<td>mm</td>
<td>mm</td>
<td>CHILD2.</td>
</tr>
<tr>
<td>*nn</td>
<td>nn</td>
<td>nn</td>
<td>nn</td>
<td>HOUSE2, MOON.</td>
</tr>
<tr>
<td>*mc</td>
<td>:m</td>
<td>?</td>
<td>c</td>
<td>DAUGHTER, HEAVY, PAINFUL, WARM.</td>
</tr>
<tr>
<td>*nc</td>
<td>nj</td>
<td>(n)?</td>
<td>c</td>
<td>*-ce forms (cf. 6.5.4), SMOKE(?)</td>
</tr>
</tbody>
</table>
Let us first consider the N+stop clusters (the cognate sets shown here include only possessed forms, with the third-person marker i-; cf. Chap. 9 for non-dominated forms):

<table>
<thead>
<tr>
<th></th>
<th>*mp</th>
<th>*nt</th>
<th>*nk</th>
</tr>
</thead>
<tbody>
<tr>
<td>SHOULDER</td>
<td>Tir i-mpa</td>
<td>MOUTH</td>
<td>BACK</td>
</tr>
<tr>
<td>BLADE</td>
<td>Ak1 i-mpa</td>
<td>*nta</td>
<td>Ak1 i-nta-ri</td>
</tr>
<tr>
<td>*mpa</td>
<td>Kh2 i-:ba(-n)</td>
<td>Kh2 i-:da-ri</td>
<td>Ak1 i-nka-i</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Kh1 i-ga-ri</td>
</tr>
</tbody>
</table>

The data shows that the nasal consonant is dropped in Karihona. The voiced consonant and the compensatory lengthening of the preceding vowel seem to be the usual reflexes (if Kh2 length is to be trusted). There are several examples of unlengthened vowels (e.g. BACK above); Kh1 (the best source) does not mark any phonemic or phonetic length. There are also cases of voiceless stops (e.g. ARRIVE, Tir /i-tunta/, Kh3 /i-tu:ta/, but even in this case, Kh1 /i(t)uda/ is also attested and seems more trustworthy).

| *nj-1 | HAND | Tir | enja |
|       |      |     | Ak2  | enja ‘palm of hand’, Ak3 enŋa |
|       |      |     | Kh2  | ĭná-ri |

The cases listed under *nj-1 have very similar sounds in all three languages. The Karihona reflex is analyzed (in Kh1) as a single consonant phoneme /ŋ/. In Tiriyó, /ŋ/ is clearly not a single unit: despite its phonetic realization [ŋŋ] (very similar to the Akuriyó reflex), its effects on the rhythmic stress pattern, as well as morphophonological evidence, strongly support the cluster analysis (cf. Meira ms-a, ms-b for details). Since it is easier to imagine a cluster /ŋj/ evolving into a single consonant /ŋ/ rather than the opposite, the reconstruction */nj/ is preferred. Considering the similarity between the Tiriyó phonetic
realization of /nj/ and its Akuriyó and Karihona counterparts, it does not seem too far-fetched to suppose that the realization of */nj/ was not much different in Proto-Taranoan.

The four attested cases of the *nj-2 correspondence are listed below.

<table>
<thead>
<tr>
<th>BLOOD</th>
<th>ANKLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>*munju</td>
<td>Kh1 munu, Kh2 münü, Kh3 münjū</td>
</tr>
<tr>
<td>Tir munu</td>
<td>Tir manini</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>RAT</th>
<th>ONE</th>
<th>HUSBAND</th>
<th>WE2</th>
<th>WE3</th>
<th>YOU2</th>
</tr>
</thead>
<tbody>
<tr>
<td>*munjupə</td>
<td>Kh2 munũhi, Kh3 mungũhi</td>
<td>*t(a/e)in(j)o</td>
<td>Ak2 töina-ra</td>
<td>Kh1 teşi, Kh2 teñi, Kh3 tenjí</td>
<td></td>
</tr>
<tr>
<td>Tir munupə</td>
<td>Tir töina</td>
<td>WE2 *kinjamo, WE3 *anja, YOU2 *(a/e)njamo)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

At first sight, one might want to posit a new proto-phoneme */j/, distinct from */nj/, to account for the above cases. Notice, however, that all cases listed in support of */nj/ have /a/, /e/ or /o/ as the following vowel (AFTERNOON *kokonje, HAND *enja, HUSBAND *injo [possessed form], WE2 *kinjamo, WE3 *anja, YOU2 *(a/e)njamo), while the (n/ŋ) cases do not. This case of complementary distribution suggests */nj/ as the source. For BLOOD and RAT, the evolution of */nj/ into Karihona /nu/ (Kh3 /ng/ in RAT must have been a transcription error) is regular, and the necessary evolution of */nju/ into Tiriyó /nu/ is plausible (consider e.g. American English new /nu*/), from an earlier */nju*; cf. British /nju*/), especially in view of the fact that there seem to be no cases of morpheme-internal /nju/ in Tiriyó (the few attested cases occur at morpheme boundaries; cf. /kin-ju:ka/ ‘he bent it’, from ju:ka ‘to bend’, with the 3rd-person Distant Past prefix

3 The similarity between these two words suggests the possibility of historical connection. There is at present no evidence that rats are (or were) connected to blood in Taranoan (and maybe Cariban) cultures (as e.g. ‘blood-eaters’), but that does not appear inconceivable; cf. the well-known case of ‘bear’, which, in certain Indo-European languages, comes from a word meaning ‘brown one’ (e.g. German Bär), or ‘honey-eater’/‘honey-knowe’ (e.g. Russian мёгёю). These words were replacements (probably motivated by taboos) of the original Proto-Indo-European *rōk-o- ‘bear’ (preserved in e.g. Latin ursus and Greek ἀρκτός); one wonders if this might be the case in Cariban as well. It would be interesting to do a cross-Cariban comparison of words for ‘rat’.
In ANKLE, there is a preceding /i/ that may have palatalized an original */n/ to /ŋ/ in Karihona; to reflect this possibility, the reconstructed form has a parenthetic */j/. In ONE, the preceding /i/ in Tiriyo and Akuriyo also suggests palatalization. However, the examples CLAY *ərinya (Tir ērinya, Ak1 ərinya, Kh3 ərinya), STEAL *aminə[pi] (Tir. aminə[pi], Kh1 aminə-), UNDER *epina (Tir epina, Kh1 china) show unpalatalized reflexes of */n/ after /i/ in Karihona. The first vowel also presents problems: positing */ai/ > Kh /e/ goes against the examples of */ai/ > Kh /ii/, /ai/ in 4.2.5 (but notice that these were all word-final; there are no examples of */ai/ word-internally), and all alternatives (*/e/ > Tir /əi/, */ei/ > Tir /əi/) seem less plausible. The best guess seems to be */tainja/ > */tenja/ > /teŋi/, with */ai/ > Kh /e/ word-internally; but this reconstruction has problems and must be seen as tentative.

Three sets seem to provide evidence for geminate nasal (i.e. NN) clusters (CHILD2 *-mmuku is a dependent form, that occurs only with possessive prefixes; the corresponding prefixless form is *mumu. Cf. the entry for CHILD2 in Chap. 9).

<table>
<thead>
<tr>
<th>HOUSE2</th>
<th>TIR minña</th>
<th>MOON</th>
<th>TIR nunña</th>
<th>CHILD2</th>
<th>TIR i-mmuku</th>
</tr>
</thead>
<tbody>
<tr>
<td>*minña</td>
<td>Ak2 minña</td>
<td>*nunña</td>
<td>Kh3 núni</td>
<td>*-mmuku</td>
<td>Ak2 ø-mmuku-ru</td>
</tr>
<tr>
<td>Kh1 minítica</td>
<td>mina</td>
<td>Kh3 múgu-ru</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The Tiriyo cognates present geminate nasals, which the Karihona cognates lack. Karihona simple nasals can also correspond to Tiriyo simple nasals (which allows simple nasals to be reconstructed; cf. e.g. EAR *pana, or YOU2 *əmə). Therefore, the above correspondences should be reconstructed as something else; the simplest hypothesis is

---

4 This possibility was suggested by Timothy Pulju.
geminate nasals. In Karihona, the initial nasal was apparently dropped (as in the other nasal cluster cases, in which the nasal consonant was lost and the preceding vowel apparently lengthened).  

There seems to be evidence for two additional nasal clusters, */mc/ and */nc/. Let us first look at */mc/:

<table>
<thead>
<tr>
<th>DAUGHTER</th>
<th>Tir</th>
<th>e:mi</th>
<th>WARML</th>
<th>Tir</th>
<th>atuma[ka]</th>
</tr>
</thead>
<tbody>
<tr>
<td>*emci</td>
<td>Ak1</td>
<td>j-e?i-ri, Ak2 j-e?i-ri</td>
<td>*atumcaka</td>
<td>Ak2 atu?aka</td>
<td></td>
</tr>
<tr>
<td>Kh1</td>
<td>eci</td>
<td></td>
<td></td>
<td>Kh1</td>
<td>atusaka</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PAINFUL</th>
<th>Tir</th>
<th>kutuma[ka]</th>
<th>HEAVY</th>
<th>Tir</th>
<th>amiima[ka]</th>
</tr>
</thead>
<tbody>
<tr>
<td>*kutumcaka</td>
<td>Ak2</td>
<td>kutu?aka</td>
<td>*am(i/ə)cisaka</td>
<td>Ak2 amí?jaka</td>
<td></td>
</tr>
<tr>
<td>Kh3</td>
<td>kutusaka-nai</td>
<td></td>
<td>Kh1</td>
<td>amácisaka</td>
<td></td>
</tr>
</tbody>
</table>

The reconstruction of a */mc/ cluster is rather bothersome, since all other nasal clusters show assimilation of the point of articulation of the nasal to the following consonant. However, there seems to be no way to explain the /m/ in the Tiriyó form without an original */m/, which would have been preserved in the other languages if it had been intervocalic (e.g. PATH *æcema, Tir æema, Ak1 øema, Kh1 esema; SONG *eremi. Tir eremi, Ak2 ereʔmi-ri, Kh1 eremi-ri). Moreover, evidence from non-Taranoan Cariban languages supports */mc/ (cf. e.g. Kaxuyana /emsi/ ‘daughter’; compare also PAINFUL *kutumcaka with Wayana /etumhak/ ‘painful’, in which the /h/ is a recent development of an earlier */s/; the ‘adjectival’ suffix -hak in Wayana appears to be cognate with Proto-Taranoan */-caka). Evidence from older sources also agrees with that: Mutis 1788 has

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5 The voiced /g/ is unexpected; it may, however, simply be a transcription fluctuation (not unfrequent in Kh3). In case it really is there, however, there is a possible explanation for it (suggested by Timothy Pulju), based on the supposition that, in Karihona, the possessed form of PT*mumuku ‘child’ reduced not the first syllable (as in Tiriyó and Akuriyó), but the second one (cf. 4.2.3 for syllable reduction). In this case, the evolution of the possessed stem would be */mumuku-ru/ > */munku-ru/ > /mugu-ru/, with */nk/ > /g/ as expected.
“atúmsaca = calentura” in Huaque (= Guaque, a Karihona dialect), and De Goeje 1909:21 lists “Trio kutum-sak ‘malade’”, mentioning also Oyana (i.e. Wayana) -hak as a cognate.

Another correspondence set, reconstructed as */nc/, has the same reflexes as */mc/ in Akuriyó and Karihona, but a different one in Tiriýó. The examples are verb stems in the ce-form (cf. 6.5.4 for more details); let us consider *ko:mami ‘to spend (the night), to fall (night) (Sp. anochecer)’:

NIGHT.FALL  Tir  -ko:manje  
              *-ko:mance  Ak2 -ko:ma?e, -ko:man?e  
                           Kh1 -komase

If we assume that the /n/ in the Akuriyó form results from Tiriýó influence, then both the Akuriyó and Karihona cognates might reflect Proto-Taranoan */mc/; however, the Tiriýó cognate has /nj/ instead of the expected /m/. Reconstructing */nc/ seems to be the best solution.

At first sight, SMOKE looks like an instance of */nc/:

SMOKE  Tir ørenta  
       Kh1 øracita, Kh2 ereciti, Kh3 iridziti

A Proto-Taranoan form */ørencita/ could be posited; the */nc/ would develop regularly into Karihona /c/. Tiriýó /n/ instead of the expected /nj/ can be explained by assimilation to the following /t/: */ørencita/ > */ørenjta/ > /ørenta/.

Nevertheless, data from Apalaí, a non-Taranoan Cariban language, suggests a different development. The Apalaí cognate is /oreʃʃ:to/ ‘smoke’; the nasality is what remains of a previous nasal coda consonant. This form suggests the reconstruction of SMOKE as */ørecinta/, which would have lost the */c/ in Tiriýó (cf. 4.2.2) and
presumably reduced a previous diphthong */eɪ/ to /eː/: */øreintəa/ > */øreintə/ > /orentə/.

The monophthongisation of */eɪ/ may have been caused by the syllable-final /n/ (*/eɨn/ > /en/). The Karihona development presents a problem: a Proto-Taranoan */nt/ should have become a voiced stop /d/. But this could conceivably have been a transcription mistake.

Both hypotheses are plausible, though not perfect. Neither accounts for the second vowel in SMOKE (/e/ in Tiriyo, /a/ in Kh1), which remains problematic; /e/ is preferred in the reconstruction simply because the variation in the Karihona sources makes them look less reliable. At this point, it seems best not to decide between */orencita/ and */orecnta/ as the Proto-Taranoan etymon.

4.2.2. Correspondences involving reflexes of PT */c/. In addition to Tir /s/, Ak /s/, Kh /c/, reconstructed as *c, there are three other correspondences that involve an alveopalatal fricative or affricate in at least one Taranoan language, as listed in Table 6.

<table>
<thead>
<tr>
<th>PT</th>
<th>Tir</th>
<th>Ak</th>
<th>Kh</th>
<th>EXAMPLES</th>
</tr>
</thead>
<tbody>
<tr>
<td>*c-1</td>
<td>s</td>
<td>c</td>
<td>c/s</td>
<td>BREAST, URINE, TURTLE, STAR, SAND, FLEA...</td>
</tr>
<tr>
<td>*c-2</td>
<td>j</td>
<td>?</td>
<td>c/s</td>
<td>BRAIN, LITTLE, DIRTY, PAPAYA, TORTOISE...</td>
</tr>
<tr>
<td>*c-3</td>
<td>Ø</td>
<td>?</td>
<td>c/s</td>
<td>WOMAN, WIND, NAME, THORN, JAGUAR, PATH...</td>
</tr>
</tbody>
</table>

An examination of the examples reveals that the three correspondences actually reflect the same proto-phoneme */c/; *c-1 occurs word-initially, whereas *c-2 and *c-3 occur intervocically; *c-3 occurs if the preceding vowel is /i/, *c-2 occurs if it is not /i/. 
*c-1 (# _V)  *c-2 ( i _V)  *c-3 (V(≠i) _V)

STAR  Tir sirikə  LITTLE  Tir piJa-na[o]  WIND  Tir pepei
   *cirikə  Ak2 cirikə  *pica  Ak2 pi?a  *pepeci  Ak2 pepe?i
               Kh1 cirikə  Kh1 hica-no

SAND  Tir samu  DIRTY  Tir tikuie  PATH  Tir e:ma
   *camutu  Ak2 camutu  *t(i/u)kuice  Kh1 tukuise  *ecema  Ak2 e?ema
               Kh1 samutu  Kh1 esema

In the two *c-2 cases below, the Karihona cognate seems to have lost an initial /ə/:

TWO  Tir ə:kenə  THREE  Tir ərəo
   *ə:kenə  Kh1 ǝkenə-ɾə  *ərerəo  Kh1 ǝrəwə-ɾə

There is only one exception, a case of *c-2 without an apparent preceding */i/:

SHORT  Tir tinti:je
   *tinti:c(e/i)  Kh3 dədə(d)ʒi-naj

Looking at these correspondences, it seems that PT */c/ was conserved only word-initially in Tiriyo; intervocally it was lost, leaving /j/ as a reflex if the preceding vowel was /i/, and disappearing completely if not. This would imply the absence of any non-word-initial /s/’s; however, this is not true. Consider the following example:

ANATTO  Tir wi:se
   Ak2 u(:)ce
   Kh2 ihusé, Kh3 ihúse

The long vowel in Tir /wi:se/ is an indicator of syllable loss (cf. next section); the Kh cognates have an extra syllable /hu/, presumably from PT */pu/; the original form was probably *(w)(i/i)puce. The development of this form suggests that a consonant cluster

---

6 The initial /d/ here is also unexplained.
probably existed at some point: *(w)(i/l)puce > *wipce > *wihse > wi:se. If this is the
general rule, then all intervocalic /s/’s in Tiriýó should occur after long vowels; this is by
and large true (e.g. /i:suhta/ ‘urinate’),\(^7\) and is also supported by the morphophonology of
the language.\(^8\)

There is also one case in which Tir /s/, rather than Ø or /j/, corresponds to Akuriyo
/ʔ/ and to Karihona /s/:

<table>
<thead>
<tr>
<th>URINE</th>
<th>Tir</th>
<th>i-suku</th>
</tr>
</thead>
<tbody>
<tr>
<td>*cuku</td>
<td>Ak1</td>
<td>iʔu-ʔu-fə, Ak3</td>
</tr>
<tr>
<td></td>
<td>suku-jakui ‘sangre menstrual’</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Kh3</td>
<td>(d)suku</td>
</tr>
</tbody>
</table>

For this case, one suggestion is that the s was conserved in Tiriýó in the prefixless
non-possessed form suku, where it was word-initial, and then reintroduced in the prefixed
forms where it was intervocalic and could be lost: *i-cuku > Pre-Tir *i-juku, which
becomes Tir i-suku by analogical reshaping.\

<table>
<thead>
<tr>
<th>JACU</th>
<th>Tir</th>
<th>marasi</th>
</tr>
</thead>
<tbody>
<tr>
<td>*mara(t/c)i</td>
<td>Kh2</td>
<td>maratți, Kh3 maráți</td>
</tr>
</tbody>
</table>

JACU (a bird species) is the only example of Tir /s/ : Kh /t/; it cannot be
reconstructed as */c/. One might try to explain it as a consonant cluster, say */tc/. The

\(^7\) In the corpus considered for the present work, there is only one exception: /susu/ ‘breast, milk’, without
a long /u:/l. Nevertheless, cognates from non-Taranoan Cariban languages show clusters (e.g. Apalai
/suʔsu/); this suggests that this /s/l might not have been intervocalic in Proto-Taranoan.

\(^8\) For instance, the supine morpheme /-se/(cf. 6.5.4.1), which occurs on verb stems, has, as expected from
the */c/-loss process, the allomorphs /-el/ and /-je/ with vowel-final stems (/je/ occurring with /i/-final
ones); the allomorph /-se/ only occurs on stems which lose their final syllables and lengthen the preceding
vowel: e.g. /l/ponopi/ ‘to tell (a story)’, /l/ponoː-se/ ‘(going) in order to tell a story’. The presumed
historical development that generated this morphophonological alternation would be: *iponopice >
*iponopce > *iponohse > iponoːse.
Tiriýó development would be */maratci/ > */marahsi/ > */mara:si/, with a long vowel that would be masked by the stress system (cf. Chap. 3) and become simply /marasi/. In Karihona, the */tc/ cluster would have evolved into a simple /t/; this is a rather marked development. Another possibility would be to reconstruct a */t/, which would have become /s/ in Tiriýó. However, a change */ti/ > /ci/, /si/ seems to have occurred much earlier in the history of Cariban languages (cf. 4.1, concerning */c/). This change would certainly have affected a word like */marati/ even before Proto-Taranoan (cf. the absence of any sure cases of PT */ti/, suggesting that they had all changed by Proto-Taranoan times). A third possibility is to consider JACU a loanword: maybe Tiriýó and Karihona borrowed it independently from different but related languages (with a /s/ : /t/ correspondence). Though possible, none of these accounts looks very convincing; it may be simpler to leave this word in the 'unexplained' category.

<table>
<thead>
<tr>
<th>WHITHER</th>
<th>Tiri</th>
<th>FART</th>
</tr>
</thead>
<tbody>
<tr>
<td>*ə(c/j)a</td>
<td>aja</td>
<td>*wecaki</td>
</tr>
<tr>
<td>Kh1 əsa</td>
<td>Ak2 aja</td>
<td>Kh3 we(d)saki</td>
</tr>
</tbody>
</table>

WHITHER, an interrogative (cf. 6.1.3), and FART present an irregular Tir /j/ :

Ak /j/ : Kh /s/ (presumably /c/) correspondence. The collective animate deictics THESE, THOSE1 and THOSE2 may be further examples, but these cognate sets are incomplete (cf. 6.1.2). A possible explanation for this correspondence is that the original form was *əja, possibly related to the allative postposition *wija ~ *ja (cf. 6.4.2.1), and that the Karihona cognate underwent 'strengthening' of the *j to *c (cf. 6.1.2 for this possibility in the case of the collective animate deictic THESE *mə(c)ecamo), but this is not clear.
4.2.3. Correspondences involving syllable reduction. Gildea 1995 has described syllable reduction and loss as a very widespread diachronic phenomenon in the Cariban family, supporting his claims with a wealth of data. Typically, full CV syllables in Proto-Carib were reduced to various degrees: loss of the vowel (generating CC clusters), followed by debuccalization of the consonant (generating hC or ?C clusters) and eventual complete loss with compensatory lengthening of the preceding vowel. Synchronically, this generates various patterns of morphophonological alternation between full and reduced syllables in different languages; diachronically, this leads to cognate sets in which full CV syllables can correspond to a single consonant, a glottal stop or fricative, or mere vowel length. The cases of such correspondences with Taranoan languages (involving /h/ or /ʔ/-clusters or vowel length) are listed in Table 7 (elements in brackets may disappear due to morphophonological factors; V represents any vowel; N represents any nasal consonant; C represents any obstruent or /ɾ/).

<table>
<thead>
<tr>
<th>PT</th>
<th>Tir</th>
<th>Ak</th>
<th>Kh</th>
<th>EXAMPLES</th>
</tr>
</thead>
<tbody>
<tr>
<td>CV-1</td>
<td>h</td>
<td>h</td>
<td>CV</td>
<td>SKIN, FIRE, BEARD, ANATTO.</td>
</tr>
<tr>
<td>CV-2</td>
<td>CV</td>
<td>:ʔ/h</td>
<td>CV</td>
<td>HEAD, BONE.</td>
</tr>
<tr>
<td>CV-3</td>
<td>Ø</td>
<td>CV</td>
<td>CV</td>
<td>SAND, FOAM(?)</td>
</tr>
<tr>
<td>CV-4</td>
<td>Ø:/[CV] [CV] [CV]</td>
<td>SLEEP, WIFE, CHEST, ROOT, BRING, LEG...</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NV-1</td>
<td>N[V]</td>
<td>NV</td>
<td>NV</td>
<td>WRIST, HIP.</td>
</tr>
<tr>
<td>NV-2</td>
<td>N[V]</td>
<td>N[V]</td>
<td>:C</td>
<td>MOUTH, BACK, SHOULDER BLADE.</td>
</tr>
<tr>
<td>h</td>
<td>Ø/(h) (;/x</td>
<td>ARMPIT, CHILD1, INTO2.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>*</td>
<td>(?)</td>
<td>Ø:(/ʔ)</td>
<td>CORN, OTTER1, BANANA, NIGHT,FALL...</td>
<td></td>
</tr>
</tbody>
</table>

The question of what caused syllable reduction is still debated. The best hypothesis links syllable reduction to the stress system, postulating that the syllables that were reduced were originally unstressed (if not in Proto-Cariban itself, at least at some point in its history). However, this hypothesis is far from solving all the problems (cf. Gildea 1995:73ff). The question still remains open.
Let us begin by discussing the first three *CV correspondences:

*CV-1  SKIN  Tir pihpə  FIRE  Tir mahto  *pitiŋə  Ak1 pihpə-ri  *mapoto  Ak2 ma(h)to  Kh1 hitihuə  Kh3 mahoto

*CV-2  BONE  Tir i-jetipə  HEAD  Tir i-putupə  *jetipə  Ak1 i-jeʔpa-ri, Ak3 jehpə  *putupə  Ak1 pu:pa-ri, Ak3 i-puʔpa  Kh2 i-jetihuə  Kh1 hutuha

*CV-3  SAND  Tir samu  *camutu  Ak2 camutu  Kh3 samutu

*CV-1, *CV-2 and *CV-3 exemplify cases of morpheme-internal syllable reduction which have not resulted in synchronic morphophonological alternation in any of the daughter languages. They are reconstructed to Proto-Taranoan as full syllables. The reconstructed syllable is based on Karihona, the most conservative language.

*CV-4

WIFE  Tir i-pi, pih-ta, i-piti-mpə  BRING  Tir m-enepi, m-eneh-tae, m-ene:-jae  *piti  Kh1 i-hiti  *ene[pi]  Ak2 n-enepi, Ak1 m-eneh-po  Kh1 enehi, Kh3 ene-ki

ROOT  Tir i-mi, i-miti-mpə  CHEST  Tir piropi, i-ropi  *i-mi[ti]  Ak2 miti (?)  *[p(i/o)]ropi  Ak1 poʔropi-ri, iʔropiʔ-ri  Kh3 (d)jim-ri, i-miti  Kh2  i-rohi-ri

*CV-4 illustrates cases of reduction which have resulted in synchronic alternations in at least one of the daughter languages, but not in all of them. This raises the question of whether such alternation should be reconstructed to Proto-Taranoan. For WIFE, the Karihona form seems to indicate no alternation; if this is true, then WIFE must be

---

10 Since *CV-3 occurs morpheme-finally, it is not impossible that Karihona and/or Akuriyó might show reduction when suffixes/clitics are added to the stem. Relevant data are lacking.
reconstructed as non-alternating to Proto-Taranoan. The BRING and CHEST sets suggest that these stems should be reconstructed as alternating. Of course, this difference may simply reflect the scarcity of morphological paradigms and morphophonological analyses in the Karihona sources rather than a Proto-Taranoan synchronic fact. In any case, there is enough evidence to consider morphophonological alternations between full and reduced syllables as part of Proto-Taranoan grammar. Cognates such as BRING suggest at least three forms of the stem: a full allomorph *enepi, an h-allomorph *eneh, and a length/zero allomorph *ene(:). The existence of a consonant-final form of Akuriyó verb stems ending in -pV, which co-occurs with the ‘Progressive’ suffix -ja (e.g. pananipí ‘to hear’, i-pananip-ja?e ‘I am hearing him/her/it’; cf., in 6.5.2, the discussion after ex. 22), further suggests the reconstruction of a consonant-final allomorph *enep. At present, the available corpus is too fragmentary for a careful reconstruction of the different stem allomorphs. More detailed data is necessary for a better understanding of the history of syllable reduction in Taranoan languages.

Similar cases of reduction occur with nasal syllables:

*NV-1 WRIST Tir emekun[u] *NV-2 MOUTH Tir mita, i-nta
  *emekunu Ak1 eme'kunu *
  Kh emekunü

  *[mi]ta, Ak1 mita-ri, i-nta-ri

  *nta Kh1 mida, Kh2 i:-da-ri

*NV-1 occurs word-finally, and *NV-2 word-internally. They can be seen as the same process of reduction, with different outcomes depending on position. *NV-2 is similar to *CV-4, and suggests that the alternation between full NV syllables and nasal codas already existed in Proto-Taranoan; this alternation is represented by writing the
nasal syllable in brackets (i.e. [mi] = /mi/ in alternation with /n/). *NV-1 must apparently be reconstructed as non-alternating. As was the case for *CV-3, this may be a spurious result of the paucity of paradigmatic data in the available corpus. In any case, *NV-2 is enough for nasal alternations to be reconstructed to Proto-Taranoan.

However, there are nasal and /h/-clusters, as well as long vowels, that do not alternate with any full syllable in any Taranoan languages, and which must be reconstructed as such to Proto-Taranoan. These include morpheme-internal instances of nasal cluster correspondences (from 4.2.1), and the */h/ and */:/ correspondences.

<table>
<thead>
<tr>
<th>*NC</th>
<th>*/h/</th>
<th>*/:/</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARRIVE Tir i(-)tunta</td>
<td>ARMPIT Tir jahta</td>
<td>NIGHT Tir ko:mami</td>
</tr>
<tr>
<td>*(i/i)tunta Kh3 n-i(-)tu:ta</td>
<td>*(e)jahta Ak2 j-ejata-ri FALL Ak2 ko:mami Kh3 j-ejáta-ri *ko(:)mami Kh1 komami</td>
<td></td>
</tr>
<tr>
<td>INTO2 Tir tuna-hka[ka]</td>
<td>Ak2 tuna-kwa?</td>
<td></td>
</tr>
<tr>
<td>*hkwaka Kh3 tuná-xkaki</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Gildea 1995:99 hypothesizes that nearly all cases of consonant clusters and vowel length in Cariban languages are produced by the syllable reduction process. If this is true, the Taranoan evidence shows that there must have been at least two different waves of syllable reduction, an earlier (pre-Proto-Taranoan) one which produced the cases of *NC, */h/ and */:/ already present in Proto-Taranoan, and a second one, which gave rise to the more recent instances of /h/ and /:/ in Tiriýó and Akuriýó (but not Karihona). In fact, considering *CV-2, it would seem that some language-specific syllable reduction has happened in Akuriýó; *CV-3 (and *NV-1) suggest the same for Tiriýó. Alternatively,
syllable reduction may have been happening continuously, affecting new words gradually, by lexical diffusion and analogy.

4.2.4. Correspondences involving */w/- and */j/-loss. The process of */c/-loss in Tiriýó (and possibly Akuriýó) has created a number of diphthongs, especially of the V+i/ kind, as well as some long vowels (cf. 4.2.2), though most long vowels apparently result from the syllable reduction process (cf. previous section). However, there are diphthongs and long vowels in Tiriýó that appear to result from a process of */w/- or */j/-loss, as can be seen in Table 8.

<table>
<thead>
<tr>
<th>PT</th>
<th>Tir</th>
<th>Ak</th>
<th>Kh</th>
<th>EXAMPLES</th>
</tr>
</thead>
<tbody>
<tr>
<td>*wo</td>
<td>o</td>
<td>o</td>
<td>wo</td>
<td>DRINK1, RIB, SAVANNA, SPEAK, SWELL, VOICE.</td>
</tr>
<tr>
<td>*wɔ</td>
<td>o</td>
<td>ɔ</td>
<td>wɔ</td>
<td>IN1, IN3.</td>
</tr>
<tr>
<td>*VjV</td>
<td>V</td>
<td>V</td>
<td>VjV</td>
<td>SPIDER1, O-set second-person prefixes (cf. 6.2).</td>
</tr>
</tbody>
</table>

*wo RIB Tir aoti                      SWELL Tir n-aο-n
*awoti Ak3 aøti-jeho {rib-bone} *awo Kh1 awo-nɔ
Kh3 j-awoti                           

VOICE Tir omi, ji-jomi
*womi Ak2 omi, j-omi
Kh3 womi

The stem-initial /j/ in Tir /ji-jomi/ 'my voice' calls for an explanation. My hypothesis derives from Gildea's reconstruction of a 'relator' prefix /j/-, which occurred, among other environments, between a person-marking prefix and the possessed stem (cf. Gildea 1998 [Sec. 5.2.1.5, 6.2]). In Tiriýó, the relator /j/- has been lost in almost all cases.
In the word-initial */w/-loss cases (DRINK, VOICE, SPEAK, SAVANNA), however, it apparently was preserved. One might assume that a */jw/ cluster may have existed at some point (*/ji-j-womi/), and that it evolved into a single /j/ in Tiriyó and into a single /w/ in Karihona. However, this is a rather speculative hypothesis, since the details of the evolution of the /j-/ prefix are not clear (Gildea 1998 even suggests that it was lost preceding consonant-initial stems long before Proto-Taranoan).

*wo IN1 Tir (pakoro) tao ‘in (the house)’
   *tawo Ak2 (ituh) tawo ‘in the jungle’
   Kh1 (itu) tawo ‘dans la forêt’, Kh3 (məni) taut ‘in dem Hause’

The evolution of */wə/ into Tiriyó /o/ is somewhat surprising. A priori, /w/ or /u/ would seem more likely; they even occur in non-Taranoan Cariban languages (cf. e.g. the Wayana cognate /taw/). Note, however, that, in the sequence */awə/, a weakening of the articulation of the /w/ (e.g. by failing to bring the lips close together) would produce a vocalic sound not unlike /o/. Thus, an evolution path in which the lower tongue height of the /a/ is anticipated to the /w/ before the /a/ itself is lost (e.g. */awə/ > */ao(a)/ > /ao/)
does not seem implausible.

There are other /ao/-final postpositions in Tiriyó (/hkao/ ‘in [water]’, /mao/ ‘in [a period of time]’), as well as a new lexicalized forms (/ahtao/ ‘while’, probably an old nominalized copula with the postposition /tao/); they all appear to share an element /ao/ < */awə/ ‘locative’. More research is necessary to establish whether or not cognate postpositions exist in the other languages.
The correspondence labeled *VjV is more problematic (the second-person examples are either possessed nouns ['your eye', etc.] or verbs with second-person objects ['s/he found you', etc.]).

SPIDER1 Tir moi
*mojoci Kh3 mojódʒi

2sg Tir ə-, a-, o- (ə-enu, 'eye', a-apə 'arm', o-oti 'meat')
*aə-, *aə-, *oə- Ak2 ə-, a-, o- (ə-etati 'hammock', a-aroki-ri 'penis', o-otii 'meat')
Kh1 əj-, aj-, oj- (aj-epori 'find', aj-akətə 'cut', oj-onami 'hide')

The cases of the *VjV correspondence appear to illustrate intervocalic */j/ loss. With the exception of the */əj-/ allomorph of the O set second-person marker, all are cases in which */j/ was surrounded by identical vowels. SPIDER1 would illustrate that: */mojoci/ > */mojoi/ > */moiː/ > /moi/. The */aj-/ and */oə-/ allomorphs of the O set second-person marker would seem to follow the same path, since they only occur on */a/- and */o/-initial stems respectively. However, the */əj-/ allomorph occurs on /el/-initial words, thus producing cases in which */j/ was lost when surrounded by different vowels: e.g. Tir /ə-enu/ 'your eye', from */əj-enu-ru/. Moreover, */aj-/i, together with */ə-/i, the allomorph used on consonant-initial stems, can generate cases of contrast loss and conservation of */j/. Compare, for instance, Tir /ə-enu/, 'your eye', from */əj-enu-ru/, and /ə-je/ 'your tooth', from */ə-je-ri/. In both cases, */j/ was in the same environment and should have followed the same development. However, it was lost in /ə-enu/ but retained in /ə-je/. This inability to define a natural phonological environment to condition */j/-loss
implies that this process is apparently specific to the morphemes in which it occurred (SPIDER1, O set second-person markers; cf. 6.2 for additional details).

The vowel length allomorphs of the Progressive TAM marker */-ja/ look at first like instances of the same phenomenon (e.g. Tir. /k-əpəna-ː-ti/ ‘we all are stopping’, presumably from */k-əpəna-ja-tə-i/; cf. 6.5.2). Note, however, that the vowel length allomorphs occur even when the verb stem ends in vowels other than /a/ (e.g. Tir /m-enepo-ː-ti/ ‘you all are showing him/her/it’). Since the presumable Proto-Taranoan form would have a */fi/ surrounded by non-identical vowels (*/m-enepo-ja-tə-i/), it should have survived. Furthermore, the vowel length allomorphs of */-ja/ can be reconstructed to Proto-Taranoan; their origin must have preceded the */fi/-loss discussed here, which happened after Proto-Taranoan times.

4.2.5. Correspondences relating diphthongs. There were already diphthongs in Proto-Taranoan, prior to */c/- and */w/-loss, as can be seen from Table 9.

<table>
<thead>
<tr>
<th>PT</th>
<th>Tir</th>
<th>Ak</th>
<th>Kh</th>
<th>EXAMPLES</th>
</tr>
</thead>
<tbody>
<tr>
<td>*ai</td>
<td>ai</td>
<td>—</td>
<td>ai</td>
<td>JAGUAR.</td>
</tr>
<tr>
<td>*ae</td>
<td>ae</td>
<td>ae</td>
<td>ae</td>
<td>BY, NEW(?), copula forms, ‘Certainty’ evidential.</td>
</tr>
<tr>
<td>*au-1</td>
<td>au</td>
<td>au</td>
<td>au</td>
<td>PACA, DEER1.</td>
</tr>
<tr>
<td>*au-2</td>
<td>a:</td>
<td>au</td>
<td>au</td>
<td>COTTON.</td>
</tr>
<tr>
<td>*ei</td>
<td>ei</td>
<td>ei</td>
<td>ei</td>
<td>FISHHOOK, SUN.</td>
</tr>
<tr>
<td>*eu-1</td>
<td>eu</td>
<td>eu</td>
<td>eu</td>
<td>COATI.</td>
</tr>
<tr>
<td>*eu-2</td>
<td>e:</td>
<td>—</td>
<td>eu</td>
<td>LAUGH.</td>
</tr>
<tr>
<td>*oe</td>
<td>o:</td>
<td>o:</td>
<td>o</td>
<td>NOSE, CURASSOW, TO1.</td>
</tr>
<tr>
<td>*au</td>
<td>æu</td>
<td>æu</td>
<td>eu</td>
<td>ARROW.</td>
</tr>
<tr>
<td>*œi</td>
<td>œi</td>
<td>œi</td>
<td>i</td>
<td>OLDER SISTER, PEPPER, SEAT.</td>
</tr>
<tr>
<td>*œe</td>
<td>œ</td>
<td>—</td>
<td>i</td>
<td>HARD.</td>
</tr>
<tr>
<td>*i</td>
<td>i</td>
<td>—</td>
<td>i</td>
<td>MANIOC.</td>
</tr>
</tbody>
</table>
The most obvious case is that of */ei/:

*ei    FISHHOOK    Tir kewei    SUN    Tir wei
*kewei    Kh3 kewéi    *wei    Ak2 wei
        Kh1 wei, Kh2 bei, Kh3 wéi

The two central-vowel diphthongs */ii/ and */œu/ are based on the Tiriyo reflexes, since the transcription of central vowels in Karihona sources other than Kh1 is generally inconsistent. No Akuriyo cognate for MANIOC was found (speakers declared that they did not know manioc before coming into contact with the Tiriyo).

*ii    MANIOC    Tir wii    *œu    ARROW    Tir pirœu
*wii    Kh3 uœi, œi, wœi    *pirœu    Ak2 pirœu
        Kh3 harœu-ari

*/ai/ and */æe/ appear clearly distinct, with their reflexes kept apart in the daughter languages. For */ai/, there was no Akuriyo cognate (the Akuriyo word for jaguar, /wiri/, clearly has a different etyson). For */æe/, the diphthong was preserved as such in all languages in the BY set.

*ai    JAGUAR    Tir kaikui    *æe    BY    Tir tae
*kaikucu    Kh1 kaikutjï    *tae    Ak2 tae
        Kh1 tae

In the forms of the ‘Certainty’ evidential (cf. 6.5.2, Table 30), Akuriyo has an unexpected glottal stop, as in the following copular form (cf. also 6.5.1.2, Table 28):

I.AM    Tir wae
*waë    Ak2 aʔe
        Kh1 wae
The glottal stop in Akuriyó points to Proto-Taranoan */c/ (cf. 4.2.2), but this is contradicted by the Karihona cognate, in which the */c/ should have been preserved. Considering that glottal stops in Akuriyó have a somewhat unstable status (cf. Chap. 3), */ae/ will be reconstructed for this set as well. (Cf. the discussion following Table 30, in 6.5.2, for details).

There is one case in which Tiriyó /ai/ corresponds to Karihona /ae/, and one in which Akuriyó /a?e/ corresponds to /ai/ in both Tiriyó and Karihona:

<table>
<thead>
<tr>
<th>NEW</th>
<th>Tir</th>
<th>S/HE.IS</th>
<th>Ak2</th>
<th>Kh1</th>
</tr>
</thead>
<tbody>
<tr>
<td>*kaenano</td>
<td>kainan</td>
<td>*na(i/e)</td>
<td>na?e</td>
<td>nai</td>
</tr>
<tr>
<td>Kh1 kaenano</td>
<td>Ak2 na?e</td>
<td>Kh1 nai</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Since NEW is the only example in which the proto-diphthong would not be word-final, one suspects complementary distribution. It seems best to reconstruct */ae/ and assume that it became Tiriyó /ae/ word-finally but Tiriyó /ai/ word- internally. As for the third-person copular form, the Akuriyó cognate is rather disturbing. One possibility is that it is not really cognate with the Tiriyó and Karihona forms. There are at least two reconstructible third-person froms in Proto-Cariban (and probably more): */naji/ and */nace/ (cf. e.g. the cognates in the non-Taranoan Cariban language Kaxuyana: /naji/ and /nasi/). The Akuriyó form may reflect */nace/, while the Tiriyó and Karihona forms may reflect */naji/. It is not clear whether or not these copular forms were kept distinct in Proto-Taranoan (cf. the discussion after Table 28 in 6.5.1.2). The reconstruction of copular forms to Proto-Taranoan, and also to Proto-Cariban, is a topic in need of more attention.
*/aɪ/ and */æ/ are not clearly distinct. Their reflexes are different in Tiriyó but apparently not in Karihona. Note, however, that the reflexes of */aɪ/, */æ/ and also */iɪ/ in Karihona often have a list of variants, indicating uncertainty in the transcription.

*æe  HARD  Tir akɪpæ
      *akɪpæ  Kh3 akɪhii

*əi  OLDER  Tir wəi-kə
      SISTER  Ak2 wəi
      *wəi-kə  Kh3 wɪi-kó

      PEPPER  Tir əməi
      *əməi  Ak2 əməi
      Kh1 əməi, Kh2 himai, Kh3 həmii

*au-1, *au-2, *eu-1, *eu-2 appear to be only two correspondences, */au/ and */eu/. With only one example per correspondence, it is difficult to determine conditioning environments with any degree of certainty; however, the examples at least suggest that *au-1 and *eu-1 are typical of word-final position, while *au-2 and *eu-2 seem to occur elsewhere:

*au-1, *eu-1  *au-2, *eu-2

*au-1 COTTON  Tir məru
      *məru  Ak2 məru
      Kh3 máru

*au-2 PACA  Tir kurimu
      *kurimu  Ak2 kurimu
      Kh2 kurimá, Kh3 kuri:mau

*eu-1 LAUGH  Tir e:ranə
      *euran(a/i)  Kh3 eura:nı

*eu-2 COATI  Tir seu
      *ceu  Ak2 ceu
      Kh3 tʃeu, dʃeu

*/oʊ/ appears to be a regular correspondence, differentiated from */oː/ (as in e.g. NIGHT:FALL *koːmami, Tir koːmami, Ak2 koːmami, Kh1 komami) by its Akuriyó reflex:
Thus, the 'safest' Proto-Taranoan diphthongs appear to be */ai/, */ae/, */au/, */ei/, */eu/, and probably */au/ and */oo/: */oi/, */oe/ and */ii/ are less safe, though it seems that at least one of the three existed.

4.3. Idiosyncratic and problematic cases. Among the more idiosyncratic cases, the most interesting is the occurrence of two examples of metathesis, involving a nasal consonant and /r/. Due to lack of cross-Cariban comparative evidence, it is impossible at the moment to determine which of the forms is the original one.

CHIN  Tir  i-jaramata  BIRD  Tir  tonoro
*jaramata/  Ak1  jaramata  *torono/  Kh1  torono, Kh2-3  toróno
*jamarata  Kh2  ʒámaratá-ri, Kh3  jamaráta-ri  *tonoro

The following cognate set, which also involves a Tir /n/ : Kh /r/ correspondence may be related to this metathesis case; a more probable hypothesis, however, is that it is the result of dissimilation (especially in view of the preponderance of /rere/ among non-Taranoan Cariban languages). The reconstruction */rere/ will thus be preferred.

BAT  Tir  nere  BIRD  Tir  tonoro
*rere  Ak2  rere  Kh1  rere, Kh2  reré, Kh3  re(i)re
Some of the irregular vowel correspondences may result from ‘reduction-to-/i/’ developments. Basically, there seems to be a general trend in the Cariban family for certain vowels (usually unstressed or non-prominent) to become /i/ (Gildea, personal communication; cf. also Hill & Hill ms for vowels becoming /i/ in Waimiri-Atroari, and Girard 1971:77ff on the difficulties involved in the reconstruction of Proto-Cariban vowels). The following sets, with correspondences involving /i/ and vowels like /u/, /o/ or /i/, are probably examples of this evolution.

<table>
<thead>
<tr>
<th>ANUS</th>
<th>Tir</th>
<th>pitiki</th>
<th>CHEST</th>
<th>Tir</th>
<th>piropi,</th>
<th>i:-ropi</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>*p(i/u)tiki</td>
<td>Ak1 i-pu'tiki-ri</td>
<td></td>
<td>*p(i/o)ropi</td>
<td>Ak1 po'ropi-ri, i-?ropi'-ri</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Kh3</td>
<td>hitiki</td>
<td></td>
<td>Kh2</td>
<td>i-rohi-ri</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DIRTY</th>
<th>Tir</th>
<th>tikuije</th>
<th>CHILD1</th>
<th>Tir</th>
<th>mure, murehti</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>*t(i/u)kuice</td>
<td>Kh3 tukuise</td>
<td></td>
<td>*m(i/u)rehti</td>
<td>Kh3 mūre, mireti</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ELBOW</th>
<th>Tir</th>
<th>aparitiki</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>*apar(i/c)(i/i)kV</td>
<td>Ak1 j-apā'retjī-'-ri {1}</td>
<td></td>
<td>Kh2</td>
<td>ahiritjīka-ri, Kh3 j-aharezīkete</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ANATTO</th>
<th>Tir</th>
<th>wi:se</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>*(w)(i/i)puse</td>
<td>Ak2 u(:)ce</td>
<td></td>
<td>Kh2</td>
<td>ihusé, Kh3 ihúse</td>
</tr>
</tbody>
</table>

In ANUS, we see Tir/Kh3 /i/ : Ak /u/; in CHEST, Tir /i/ : Ak /o/. In DIRTY, we see Tir /i/ : Kh /u/; in CHILD1, Tir /u/ : Kh /i/. Notice also the (morphological?) /u/ ~ /i/ variation in CHILD1: Kh3 /mūre/ ‘child’, but /mireti/ ‘children’ (collective). The same can be said about Tir /i/ : Kh /i/ (ARRIVE) and Tir /i/ : Kh /i/ (ANATTO, ELBOW). It does not seem possible to describe these cases as instances of a unified linguistic change. For CHEST, there is some evidence from non-Taranoan languages for */o/ as the original vowel (cf. Carib of Surinam /popu/ ‘chest’), which would imply an */o/ > /i/ change in
Tiriyó, i.e. a case of a vowel reducing to /i/. However, even here an independent assimilation to the following /o/ is not unthinkable. For the time being, it seems better to leave this problem unsolved.

Cases of 'disappearing' consonants were found:

**SLOTH**    **Tir arekore**    **SPIDER2**    **Tir sawarakau**
*(w)arekore    Ak2 arekore    *(c(a/i)waraka(r)u)    Kh3 dʒiwarákaru
Kh3 uarékore

The loss of initial /w/ in SLOTH may be likened to the word-initial cases of /w/-loss (cf. VOICE in 4.2.4), especially because in both cases Karihona is the language in which the /w/ is apparently conserved.\(^{11}\) For SPIDER2, the loss of intervocalic /i/ is simply irregular (cf. cases where it was not lost, such as GOOD *kure, WING *apəri, etc., and also TURTLE *cawaru, which looks enough like SPIDER2 that one wonders if they are etymologically related). A transcription error in the Kh3 word is not implausible. The Tir /a/: Kh3 /i/ correspondence, on the other hand, may be a case of the 'reduction-to-/i/' phenomenon mentioned in the preceding paragraphs.

There were three cases of apparent loss of a final nasal syllable in Karihona: the nominal number markers (cf. 6.3.2), ONLY, and NOT2.

**Col**    **Tir to[mo], ko[mo]**    **ONLY**    **Tir rə:ken[e]**    **NOT2**    **Tir wa:ke[ne]**
*tomo. Ak2 tomo, komo    *rə:kene Ak2 rə:ken    *wa:kene Kh1 ake
*komo Kh1 to, ko    Kh1 reke

---

\(^{11}\) There are several cases of unpredictable conservation or loss of a /w/ or /wi/ (NOT2, SLOTH, ANTEATER, ASH, KNEE, ANATTO, DEER). The comparative study of these case of ‘movable /w/’s’ would be an interesting topic for future research.
ONLY and NOT2 appear to involve a common part /kene/, which is probably related to the Tiriyó 'Continuous' particle /ke[ne]/. It is hard to find a reason why the nasal syllable should have been lost in Karihona. One possible speculation is that the final syllables /ne/ and /mo/ were independent elements (cf. 6.3.2 for /mo/) which failed to become a part of the above words in Karihona. For the time being, however, there is no evidence in support of this.

Table 10 lists the remaining idiosyncratic cases, for which there is no really convincing explanation thus far (except for the hope that they are either transcription mistakes or not really cognate); their history needs more descriptive and comparative research.

<table>
<thead>
<tr>
<th>PT</th>
<th>Tir</th>
<th>Ak</th>
<th>Kh</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>(k/g)</em></td>
<td>k</td>
<td>k</td>
<td>g</td>
<td>MAN</td>
</tr>
<tr>
<td><em>(p/c)</em></td>
<td>V: V7V, Vu VhV</td>
<td></td>
<td></td>
<td>LOUSE, LONG, SAP.</td>
</tr>
<tr>
<td>*(p/m)-1</td>
<td>m</td>
<td>—</td>
<td>p</td>
<td>PAPAYA.</td>
</tr>
<tr>
<td>*(p/m)-2</td>
<td>p</td>
<td>m</td>
<td>m</td>
<td>TAPIR?</td>
</tr>
<tr>
<td><em>(t/c)</em></td>
<td>t</td>
<td>c</td>
<td>c</td>
<td>ELBOW.</td>
</tr>
<tr>
<td><em>(k/c)</em></td>
<td>k</td>
<td>—</td>
<td>c</td>
<td>CAT.</td>
</tr>
<tr>
<td><em>(k/w)</em></td>
<td>w</td>
<td>—</td>
<td>ku</td>
<td>WOODPECKER.</td>
</tr>
<tr>
<td><em>(a/o)</em></td>
<td>a</td>
<td>ø</td>
<td>ø</td>
<td>WHAT.</td>
</tr>
<tr>
<td><em>(a/o)</em></td>
<td>ø</td>
<td>ø</td>
<td>o</td>
<td>SLEEP.</td>
</tr>
<tr>
<td><em>(a/i)</em></td>
<td>a</td>
<td>—</td>
<td>i</td>
<td>LAUGH, INTO2.</td>
</tr>
<tr>
<td><em>(e/i)</em></td>
<td>e</td>
<td>—</td>
<td>i</td>
<td>SHORT.</td>
</tr>
</tbody>
</table>

*(k/g)* is a case in which Tiriyó and Akuriyó /k/ correspond to Karihona /g/ without any obvious nasal consonant:
MAN
Tir kiri
*(k/g)iri Ak2 kiri
Kh1 giri, Kh2 giri, Kh3 gari

There does not seem to be any possibility of a nasal here. The Karinya cognate
woki:ri 'man' (Hoff 1968:218, 437] suggests that there may have been a preceding
syllable; it may have had a voicing effect (reminiscent of the one postulated by Gildea
1998 [Sec. 6.2] for the reflex of the Proto-Cariban first-person prefix *u- in Karihona; cf.
also 6.2 below for a more detailed discussion). However, the initial syllable wo- in Karinya
may also be related to the cases of 'disappearing' or 'movable /w/' mentioned earlier in
this section.

*(p/c) contains cases in which Tiriyó /V:/, Akuriyó /V?V/ suprisingly seem to
correspond to Karihona /VhV/; SAP also has an unexpected Akuriyó /Vu/:

LONG Tir ma:, ma:-no {nominalized} LOUSE Tir ja:mi
Ak2 mi?a, mi?a-no Kh1 jahami, Kh2 dʒami, Kh3 ja:mi
Kh1 miha, miha-no

SAP
Tir e:ku
Ak2 eku-ru
Kh2 ehéku-ru, Kh3 ehuku-ru

Kh /h/ invariably comes from PT */p/; however, a change such as */VpV/ > Tir
/V:/ is rather disturbing. If the proto-sequence had been */VcV/, the evolution into Tiriyó
would be a normal case of */c/-loss (cf. 4.2.2), but its evolution into Karihona /h/ (or
disappearance, as in the Kh2-3 cognates in LOUSE) is unexpected. For SAP, the proto-
form, whatever it was (*epeku/, */eceku/ etc.), may have undergone analogical influence
from other semantically related words such as /ehi/ ‘trunk’, /eheru/ ‘fruit’. Another possibility is that there may be two cognate sets here, one with reflexes of */p/ and one with reflexes of */u/ (cf. cognates from a non-Taranoan Cariban language, Wayana, with both /epku/ and /euku/ for ‘sap’).

*(p/m) PAPAYA Tir mapaja TAPIR Tir pai
*(p/m)apa(i)ca Kh3 hayaia\text{\textipa{3}}a Ak2 maipuri
Kh1 macihuri

The Tiriyó /mapaja/ should contain a diphthong (i.e. /mapaija/); this may have been a transcription error. In TAPIR, Tiriyó /pai/ appears to be a different word altogether. A comparison with Ak2 /pa?i/ ‘acouchy (Myoprocta spp)’ led to the division of this set into two sets, TAPIR *macipuri (Ak2 ma?ipuri, Kh1 macihuri) and ACOUCHY *paci (Tir pai, Ak2 pa?i). The beginning two syllables of the present-day Tiriyó word for ‘acouchy’, /pa:sinore/, still looks related to the ACOUCHY set. It would appear that Tiriyó changed the meaning of Proto-Taranoan */paci/ from ‘acouchy’ to ‘tapir’. Given the remarkable differences between these two mammals (acouchies are small rat-sized rodents, weighing approximately 1-2 kg; tapirs are big ungulates, the size of a young cow, and weigh approximately 250 kg), this semantic shift is rather surprising.

*(t/c) ELBOW Tir apəritiki
*apəri(t/c)(i/i)kV Ak1 j-apə?reci.?-ri {1}
Kh2 ahibricika-ri, Kh3 j-ahare3fikete {1}

This example is the reverse of JACU *mara(t/c)i: instead of Tir /s/ : Kh /t/, we have Tir /t/ : Ak, Kh /c/. Even admitting variation between */apəritiki/ and */apəriciki/ in
Proto-Taranoan still leaves the problem unsolved: where would this variation come from? Were there maybe two different elements, */tiki/* and */ciki/*, which formed independent compounds with ARM */apa/* (the intermediate syllable */ri/* being possibly a remnant of the possessive suffix */-ri/; cf. 6.3.1.1)?

*(k/c) CAT Tir miki
Kh2 míci, Kh3 mídzi

Since cats did not exist in Amazonia prior to the arrival of the Europeans, a word for ‘cat’ is a good candidate for borrowing from some neighboring language. The /k/ : /c/ correspondence, which looks like a plausible development but is not otherwise attested in the Taranoan sub-branch, might indicate that they were borrowed from different related languages, or from the same language at different moments.¹²

*(k)w WOODPECKER Tir wetu
* wetu Kh3 kue:tú

The /k/ in Kh3 remains unexplained; it looks like a transcription mistake.

*(a/a) WHAT Tir ati
*(a/a)ti Ak2 ati
Kh3 ati

¹² Denny Moore (personal communication) mentions that words for ‘jaguar’ in Tupian languages outside of the Tupí-Guaraní family are similar to this word (e.g. Gavião /nêkó/, Mekés /amêko/, Karitiana /ómākí/, Karo /mekó/). Rodrigues 1985 had already suggested that Cariban and Tupian languages may have borrowed animal names from each other.
This correspondence is also quite irregular. A comparison with other non-Taranoan languages suggests that */ɔti/ should be reconstructed (cf. Wayana /ɔti/, Apalaí /ɔti/). Cf. 6.1.3. for analogical pressure as the probable source of Tiriyó /a/.


This case is highly suggestive of a */oI/ > /aI/ evolution in Tiriyó (cf. e.g. Karinya, a non-Taranoan language that may be close to Taranoan, which has /oniki/ ‘sleep’; cf. also cases such as the Tiriyó word for ‘white-lipped peccary’, either /ponjekeI/ or /pənjekI/, depending on the dialect, suggesting a similar development).

*(a/i) LAUGH Tir e:ranâ *(e/i) SHORT Tir tinti:je *(euran(a/i) Kh3 eúra:ni *(tinti:c(e/i) Kh3 dədə(d)ji-naj

No principled explanation is evident for the above cases, other than idiosyncratic ‘reduction-to-/I/’ (cf. cases of unchanged final /a/ or /e/, like EAR *pana or GOOD *kure).

Finally, let us mention the cases in which some extraneous element is present in one of the cognates and is apparently lost in the others. For WHO, the Tiriyó /a/ may come from the same analogical pressure that was mentioned above concerning WHAT (cf. 6.1.3); for YOU2 and WE2, cf. 6.1.1 for a possible explanation based on a Tiriyó-Akuriyó innovation.
FINGER NAIL  Tir amoi
*amo(sa)i  Ak1 amoi?-ri, Ak3 amoi-ri
          Kh2 amosai-re, Kh3 hemosai-ri, j-amosai-ri  {1}

WHO      Tir aki
*(ẹnọ)ki  Ak2 ẹki
          Kh3 ẹnọki

DEER1    Tir wikapau
*(wì)kapau  Ak2 wikapau
          Kh2 kaháö, Kh3 kaháu

YOU2     Tir ọmọnjamo
*ọnjamo  Ak2 ọmọnjamo
          Kh1 aŋamoro, Kh3 aniämoro

WE2      Tir kìmọnjamo
*kìnjamo  Ak2 kìmọnjamo
          Kh1 kìnjamo-ro
Chapter 5

A Sketch of the Historical Phonology of Taranoan Languages

After having looked at the available evidence, it becomes possible to summarize the hypothetical historical development of the segmental phonology of the Taranoan sub-branch, from Proto-Taranoan to the modern languages.

5.1. Proto-Taranoan phonology.

Proto-Taranoan had seven vowels, eleven consonants, at least five diphthongs, and ten (maybe eleven) consonant clusters, as shown in Table 11:

<table>
<thead>
<tr>
<th>CONSONANTS</th>
<th>VOWELS</th>
<th>DIPHTHONGS</th>
<th>C-CLUSTERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>*p *t *k</td>
<td>*i *i *u</td>
<td>*ai *au</td>
<td>*mp *mm</td>
</tr>
<tr>
<td>*c *h</td>
<td>*e *ə *o</td>
<td>*ei *eu</td>
<td>*mc</td>
</tr>
<tr>
<td>*m *n</td>
<td>*a</td>
<td>*əi? *əu</td>
<td>*nt *nn *ht</td>
</tr>
<tr>
<td>*r</td>
<td></td>
<td>*əo</td>
<td>*nk *hk</td>
</tr>
<tr>
<td>*w *j</td>
<td>: (vowel length)</td>
<td>*ae? *əe?</td>
<td>*nj *nc</td>
</tr>
</tbody>
</table>

All consonant clusters were heterosyllabic; thus, all syllables were of the form (C)V(X), where X was either nothing, V (*/i/, */u/, */o/, */ə/, maybe */e/), */h/, or */N. All nasal clusters except */mc/ were homorganic; */nk/ was realized as [ŋk] and */nj/ as [ŋj] or [ŋŋ] (as is apparently the case in all daughter languages). PT consonant clusters, like those which appeared during the development of the modern languages (cf. 4.2.1ff), probably also came from pre-PT syllable reduction. The diphthongs may have had a similar
origin; there is some evidence that at least some of them are reduced forms of syllables of the form /j, w/ + V (compare PT SUN */wei/ with Kalinya /weju/ ‘sun’, or ARROW */pirəu/ with Kaxuyana /pirowi/ ‘arrow’). Apparently, syllable reduction is constantly happening in the Cariban family, with various ‘outbursts’ (at least one before Proto-Taranoan, and one or maybe two afterwards, if the cases of reduction exclusive to Akuriyó or Tiriyó, *CV-2 and *CV-3 in 4.2.3, are seen as the result of independent and more recent ‘outbursts’); or maybe it is ‘endemic’, so that at any given period of time it is affecting at least a few isolated words. A description of the history of syllable reduction in the entire Cariban family would certainly be a fascinating topic.

Morphophonologically reducing syllables were already present (cf. SLEEP *(ə/o)ni[kɪ], CHEST *(p/i/o)ropi). They were generally of the kind C+/i,w/, but not all syllables of this type would reduce (compare CHEST with HEAD *putupə or ANUS *pitiki, which are non-reducing); the phenomenon was already unpredictable.

The presence of rhythmic stress in Akuriyó and Tiriyó does not necessarily imply its existence in Proto-Taranoan. Since these two languages appear to be more closely related, the stress system could conceivably be a shared innovation. Given the frequency of rhythmic stress systems in the family (e.g. Kalinya [cf. Hoff 1968:71ff], Kaxuyana, Makuxi [cf. Abbott 1991:145ff], Hixkaryana [cf. Derbyshire 1985, and also Hayes 1995:205ff]), it would not be surprising to find a similar system in Proto-Taranoan. However, since there also are a number of Cariban languages which apparently lack rhythmic stress (e.g. Panare, Apalaí, Ikapeng/Txikão [Gildea, personal communication], Wayana), it is hard to draw conclusions. Some morphophonological evidence suggest that Proto-Taranoan had rhythmic stress, but the details are unclear (cf. the discussion of first-
person possessed forms and Akuriyó vowel lengthening at the end of 6.2). Due to the absence of Karihona data, Proto-Taranoan stress will remain unreconstructed.

5.2. The evolution of Karihona phonology.

The main historical developments that occurred between PT and Karihona were (not necessarily in this order):

1. The change */p/ > */h/, which occurred everywhere except in */Np/ clusters and in the first-person form of inflected words (cf. 4.1).

2. The phonemicization of voiced stops /b, d, g/, from two sources:
   — Nasal clusters: */mp, nt, nk/ > */b, d, g/1 (cf. 4.2.1)
   — First-person form, where /b, d, g/ replace /h, t, k/ to indicate first person; cf. 6.2 for a discussion of this development.

3. The loss of syllable-final consonants:
   — Nasal codas disappeared, causing the voicing of a following stop (if any) and possibly the compensatory lengthening of the preceding vowel (cf. 4.2.1).
   — */h/-codas were also dropped, apparently causing compensatory lengthening, with one possible exception */(x)kaki/ ‘into (water)’ < */(h)kwak(a/i)/; cf. 4.2.3).

Schematically,

\[
\begin{align*}
*/p/ & \quad */m/ \\
*/t/ & \quad */n/ \\
*/k/ & \quad */h/ \\
\text{(in nasal clusters; 1st pers.)} & \quad \emptyset(:) \quad \text{(syllable-finally)}
\end{align*}
\]

\[ /b/ \]

\[ /d/ \]

\[ /g/ \]

1 A partial form of this evolution had already been posited by Girard 1971:135-136.
4. The monophthongization of */oʊ/ > /o/ (cf. 4.2.5), independently from Tiriyó.

CURASSOW */oʊko/ > Kh3 /oko-imi/, Tir /o:kol/, Ak2 /ooko/

Older sources confirm some of these changes and offer additional details. The */p/ > h change appears to have gone through an intermediate */ph/ phase. In Mutis 1788, words that have /h/ in Kh1 are spelled with f: fata ‘pueblo’, falu ‘platano’, tiaforo ‘todo’ (/hata/, /harul/ and /tijahoro/ in Kh1). At least one word was spelled with j, presumably the Spanish ‘jota’, probably representing /h/: majoto ‘candela’ (Kh1 /mahoto/ ‘fire’). This suggests that */ph/ > /h/ may have started word-internally, and only later have spread to word-initial position (cf. the synchronic distribution of [p] and [h] in present-day Kaxuyana: [p] word-initially, [h] word-internally, probably a result of a similar change). Also, Crevaux 1882a has words with /p/ and words with /h/ (examples in Crevaux’s spelling, followed by a phonemic interpretation): capiouara /kapiwara/ ‘capivara’, paouchi /pausi/ ‘curassow’ (cf. Kh3 /oko-imi/), tepo /tepo/ (probably /təpu/) ‘stone’, couroute /kurutpe/ (probably /kurupə/) ‘turtle’ all have /p/, but caho /kahol/ ‘sky’, nahi /nahi/ ‘potato’, nahake /nahake/ (probably /nahəkə/) ‘yam’, hara /hara/ ‘manioc sp.’, conoho /konoho/ ‘rain’, etc. have /h/. The fact that Crevaux seems to have missed some initial /p/’s ~ /h/’s (e.g. outouhe /utuhel/ ‘head’; cf. Kh1 /hutuhə/) suggests that these /p/’s were not really pure stops; they may have been closer to Mutis’ fricatives. Alternatively, Crevaux and Mutis may have recorded different dialects of Karihona, in which the */p/ > /h/ change was operating at different speeds (/p/’s had apparently already disappeared from Matis’ dialect in 1788, but there were still some /p/’s in Crevaux’s in 1882; Matis’ dialect had thus gone further in the */p/ > */ph/ > /h/ change).
5.3. The evolution of Tiriyó-Akuriyó phonology.

The available data suggests that Tiriyó and Akuriyó share a number of innovations (not necessarily in this order):

1. Loss of PT */w/ before */o/ (cf. 4.2.4.)
   
   RIB */awoti/ > Tir /aotι/, Ak3 /aotιi/, Ak2 /j-aohe-pa-ri/, but Kh3 /awoti/.

2. Loss of PT */c/ intervocalically (cf. 4.2.2)
   
   THROAT */ecena/ > Tir /e:na/, Ak1 /e'na-ri/

3. Most cases of syllable reduction (*CV-l in 4.2.3)
   
   SKIN */piti:pə/ > Tir /pihpə/, Ak1 /pihpə-ri/, but Kh1 /hitihə/

Concerning 1., it is interesting that, since it affected borrowings from Sranan (e.g. Tir. /oroko/ ‘work’, which becomes /j/-initial when possessed: /ji-j-oroko/ ‘my work’, thus indicating the loss of an original */w/ [cf. 4.2.4]; cf. Sranan wroko ‘work’, the obvious source), it seems to have happened after the first contacts between the Tiriyó and the Bush Negroes in the 18th-19th century.

The innovations that distinguish Akuriyó are (not necessarily in this order):

1. The development of glottal stops, apparently as (a) part of the stress system, and (b) as a last remnant of intervocalic */c/, preserving the syllable boundary;

   Ak1 /i-mo'ta-ri/ ‘his/her shoulder’ (glottalization of stressed vowels)

   LIZARD */joci/ > Ak2 /jo?i/, but Tir /joi/, Kh3 /joci/ [jo:d3i]
2. The reduction of a few syllables that remained unchanged in Tiriyó.

   HEAD */putupa/ > Ak1 /pu:pe-ri/, but Tir /putupa/, Kh1 /hutuha/

   The innovations that distinguish Tiriyó are (not necessarily in this order):

1. The reduction of word-final N+/i,u/ syllables to N (realized as [ŋ]).

   WRIST */emekunu/ > Tir /emekun/, but Ak1 /emeʔkunu/, Kh2 /emékunu/

2. Resyllabification of the reflexes of */VcV/ and */Vwə/ sequences as diphthongs

   WIND */pepeci/ > Tir /pepeci/, but Ak2 /pepeʔi/, Kh1 /heheci/

   IN1 */tawa/ > Tir /tao/, but Ak2, Kh1 /tawa/

3. Monophthongization of certain diphthongs (cf. 4.2.5), independent from Karihona:

   CURASSOW */aoko/ > Tir /o:ko/, Ak2 /aoko/, Kh3 /oko-im/i/

   COTTON */mauru/ > Tir /ma:ru/, Ak /mauru/, Kh3 /máuru/

   Both languages were rather conservative in terms of segmental changes: all PT phonemes still exist in Akuriyó and Tiriyó. */c/- and */w/-loss generated a number of new diphthongs, some of kinds that already existed, and some of new kinds (/oi/, /ui/; e.g. CASHEW */oroci/ > Tir /oroi/, JAGUAR */kaikuci/ > Tir /kaikui/, IN1 */tawə/ > Tir /tao/).

5.4. The origin of Tiriyó long vowels.

   An interesting feature of Tiriyó phonology was the development of a number of new long vowels. Gildea 1995:98 had claimed that "[...] nearly all cases of synchronic
glottal stop and phonemic vowel length are the result of a historical process of syllable reduction.” In Tiriýó, however, there seem to have been five different sources of long vowels, only one of which is the kind of syllable reduction that Gildea describes (i.e. reduction of syllables in which the onset is an obstruent, a nasal, or a liquid, and which begins with vowel syncope).

1. Classical syllable reduction: *CVCVCV > *CVCCV > *CVhCV > CV:CV (cf. 4.2.3)
   (FOAM */akiro/ > */akro/ > */ahro/ > /a:ro/)

2. Monophthongization: *CV(u,o)CV > CV:CV (cf. 4.2.5)
   (SAP */euku/ > /e:ku/, HOLE */aota/ > /o:ta/)

3. Intervocalic */c/-loss: *CV¹CV²CV > CV:CV if V¹ = V² (cf. 4.2.2)
   (MOSQUITO */macako/ > /ma:ko/)

4. Some cases of */j/-loss: *aj-a, oj-o > a:, o: (cf. 4.2.4)
   (YOUR ARM: */aj-apɔ-ri/ > /a:pa/)

5. Borrowing: (stressed vowel is interpreted as V:)
   (Sranan /sópu/ ‘soap’, /páteri/ ‘battery’ > Tir. /so:pu/, /pa:teri/)

The subcases 2-5 above list all processes other than classical syllable reduction that have produced Tiriýó long vowels. However, all of the above (except for 5) can be viewed as kinds of ‘generalized’ syllable reduction. The diphthongs that are possible targets for monophthongization can be seen as resulting from the evolution of Proto-Cariban */wV/ syllables that lost their vowels (Gildea, personal communication). Since vowel syncope is the first stage of Gildea’s syllable reduction (cf. 1995:73ff), */wV/ > */w/ > /:/ can be
easily accommodated in his description as an additional subcase. The cases in 3 and 4 are also instances of ‘syllable reduction,’ in the sense that formerly existing syllables lost segmental material, and what remained became part of the preceding syllable. However, they are also different from 1: their first stage is not vowel syncope, but onset loss. Unlike Gildea’s syllable reduction (including */wV/ > */w/ > *//), which can be seen as a single process of erosion affecting different kinds of syllables, the processes of onset loss do not seem to have any common motivation; they probably constitute entirely separate phenomena.

An important difference between classical syllable reduction and onset loss in Tiriyó is that the former has as its reflex an /h/ if the following consonant is a stop (e.g. FIRE */mapoto/ > Tir /mahto/), and *// if it is not. This is not the case for onset loss. To illustrate the importance of this fact, let us look at the Tiriyó word e:ka ‘to bite’. Gildea 1995:98 mentioned it as an example of syllable reduction, from Proto-Cariban *esika. However, if this were the case, the Tiriyó reflex would have to be ehka, a form which does not occur. A better explanation is *c-loss. The Taranoan cognate set BITE is reconstructed as *eceka (Tir e:ka, Kh1 eseka); the evolution *eceka > Tir e:ka looks as straightforward as the example given in 3. above. The data also suggest that *eceka should be reconstructed back to Proto-Cariban instead of Gildea’s *esika.
Chapter 6
Reconstructing Proto-Taranoan Inflectional Morphology

In this chapter, the inflectional morphology (relating to the categories of person, number/evidentiality, and tense/aspect/modality) of Taranoan languages will be compared. The pronominal and deictic system (together with some interrogatives) will also be reconstructed. A broader treatment of comparative morphology from a pan-Cariban perspective can be found in Gildea 1998, and also in Derbyshire (to appear). All quoted forms are in phonemic transcription; to simplify the representation, the phonemic bars (/ /) used in the phonology sections will not be used here.

6.1. Pronouns.

This section treats the pronominal system of Proto-Taranoan. This includes the personal pronouns (6.1.1), the third-person deictics (6.1.2), and the interrogatives (6.1.3).

6.1.1. Personal Pronouns. Five persons can be distinguished in the pronominal system: a first person (1), a second person (2), a third person (3), a first person dual inclusive (1+2), and a first person exclusive (1+3). The first four distinctions (excepting the last one, 1+3)

---

1 Not all interrogatives are, *stricto sensu*, pronouns. In Tiriwó, for instance, interrogatives are identified by the fact that they can co-occur with the generic indefinite particle *hepe* (e.g. *aki hepe* 'whoever', *ati hepe* 'whatever', *a:no hepe* 'whichever', *aja hepe* 'wherever', *a:tko:me hepe* 'for whatever reason' [from *a:tko:me* 'why']), which is not true for any of the pronouns. The two interrogatives *aki* 'who?' and *ati* 'what?' behave syntactically like pronouns, occurring as subjects and objects of verbs; moreover, *aki* even has a collective form *a:tkan* (as in Spanish *quien* / *quienes*), with the same collective marker that occurs on third-person deictics (cf. 6.1.2). However, these facts are not true for more 'adverbial'-like interrogatives such as *aja* 'where?', *e:kanmao* 'when?', or more 'particle'-like ones like *a:tko:me* 'why?'. For convenience, however, they will be reconstructed in the same section as the pronouns.
are also marked by two prefix sets on the different inflectable word classes (nouns, verbs and postpositions; cf. 6.2). The 2, 3 and 1+2 pronouns are sensitive to number: they have two forms, collective (referring to all members of a certain known group) and non-collective (referring to less than all). The basic number opposition in these languages is not, as in English *s/he/it vs. *they, ‘one’ vs. ‘more than one’, but rather ‘all’ vs. ‘less than all’. The same person and number distinctions will be found in the morphology of nouns, verbs, and postpositions.

The following table shows the non-third-person pronouns of Taranoan languages, together with their reconstructed Proto-Taranoan form.

<table>
<thead>
<tr>
<th>Table 12</th>
<th>Taranoan personal pronouns</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pronouns</td>
</tr>
<tr>
<td>1</td>
<td>*əwi</td>
</tr>
<tr>
<td>2</td>
<td>*əme</td>
</tr>
<tr>
<td>1+2</td>
<td>*kimə</td>
</tr>
<tr>
<td>1+3</td>
<td>*anja</td>
</tr>
<tr>
<td>2col</td>
<td>*anjamə</td>
</tr>
<tr>
<td>1+2col</td>
<td>*kinjamə</td>
</tr>
</tbody>
</table>

The reconstruction of *anja ‘1+3’ is straightforward (cf. 4.2.1 for *nj as a cluster rather than as a single phoneme, unlike Karihona *ŋ). The initial *ə in *əwi ‘1’ is based on (a) the absence of a source for this ə in Karihona, (b) the existence of first-person pronouns with an initial vowel in most non-Taranoan Cariban languages (e.g. Apalai ɨwi, Kaxuyana əwi, Wayana ɨ(w)u, Karinya au). It might also be the (admittedly irregular)
source of the long $i$ in its Tiriyó reflex when a clitic follows (e.g. *wi: ta ‘not me’, with the negative particle *ta[ike]*).

The Karihona final syllables *ra*, *ro* in all pronouns (except the 1 and 1+3 ones) is not reconstructed to Proto-Taranoan. The main reason is the existence of a very likely source: the ‘emphatic/identificational’ particle *ra~ro* ‘REALLY’ (*ro* occurring after *o*-final words, *ra* elsewhere). This particle is very frequently used with pronouns in Tiriyó and Akuriyó (e.g. Tir. *wi: ra* ‘that’s me!’, as an answer to: ‘who’s that?’). It seems to have become part of the 2 and 1+2 pronouns in Karihona.

In Akuriyó and Tiriyó, the collective pronouns have an extra syllable ma, not found in Karihona (*amajamo, kimajamo*). There is, however, indirect evidence suggesting that this syllable should not be reconstructed to Proto-Taranoan. By comparing collective and non-collective pronouns, a collective suffix -jamo could be segmented; however, if we assume that the collective marker here is not -jamo but really -jamo (which agrees with the collective form of third-person deictics [cf. 6.1.2]), then the *n* (*n* in Karihona) can be explained as the result of syllable reduction acting on Pre-Proto-Taranoan forms:

*kiŋ-jamo > *kim-jamo > Kar. kiŋamo

*am-ŋamo > *am-ŋamo > Kar. aŋamo (with assimilation of the initial vowel)

In Tiriyó and Akuriyó, the resulting forms *kin-jamo* and *am-jamo* would have been reinterpreted as *ki-ŋamo* and *a-ŋamo*, and the new suffix -ŋamo was then

2 Cf. Waiwai *amjamro*, with a /mj/ cluster.
reapplied to the non-collective pronouns *aŋa and kíma, generating *aŋa-ŋamo and kíma-ŋamo. The variation in Akuriyó, if it is to be trusted, may be a remnant of a similar phenomenon.

It is not clear whether the vowel assimilation shown in the Karihona 2col form occurred before or after the split of Proto-Taranoan (i.e. whether *aŋamo or *aŋjamo should be reconstructed to the PT level). The initial phases of the syllable reduction process must be prior to Proto-Taranoan, since there is no evidence for reconstructing mj clusters; but the assimilation might still have happened only in Karihona.\(^3\)

### 6.1.2. Third-Person Deictics

Third-person forms in Tiriyó are classified according to gender (animate vs. inanimate)\(^4\), deixis (proximal-visible, distal-visible, invisible; there is also an anaphoric form)\(^5\), and number (collective vs. non-collective, only for animate pronouns, with the suffixes -ja[mo] and -sa[mo]; the inanimate pronouns are made collective with the particle to[mo], like nouns [cf. 6.3.2]). Unfortunately, cognates in all languages for all forms were not attested in the available corpora.\(^6\) What has been found can be seen in Table 13 (An = animate, In = inanimate, PV = proximal visible, DV = distal

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3 Alternatively, the Pre-Proto-Taranoan form might already have had an a (several Cariban languages have amoro as second-person pronoun; e.g. Karinya [Hoff 1968:270ff]), with a-forms such as Tiriyó and Akuriyó amo being more recent developments. More cross-Cariban comparative research is clearly necessary here.

4 The animate/inanimate distinction is semantically transparent; the only exception is the usage of animate forms to refer to stars (attested only in Tiriyó, but probably also existant in Karihona and Akuriyó).

5 These are the labels I use in Tiriyó (where research on these semantic distinctions is still ongoing); I will use them for the cognates in Karihona and Akuriyó without claiming them to be necessarily adequate. More research is urgently necessary here.

6 In addition to the forms listed here, there are also distal forms an (inanimate) and ohki (animate), which I have thus far been unable to distinguish in meaning from ma[ni] and ma[i].
visible, I = invisible, A = anaphoric, Col = collective; Karihona data from Kh1, except for məhi, which is from Kh3).

<table>
<thead>
<tr>
<th>Pronouns</th>
<th>PT</th>
<th>Tiriýó</th>
<th>Akuriýó</th>
<th>Karihona</th>
</tr>
</thead>
<tbody>
<tr>
<td>3AnA</td>
<td>*nə(ː)ɾə</td>
<td>nəɾə, nəːɾə</td>
<td>nəɾə</td>
<td>nəɾə</td>
</tr>
<tr>
<td>3AnACol</td>
<td>*nəmo</td>
<td>nəmo</td>
<td>namoro</td>
<td>namoro</td>
</tr>
<tr>
<td>3InA</td>
<td>*ɪɾə</td>
<td>iɾə</td>
<td>iɾə</td>
<td>iɾə</td>
</tr>
<tr>
<td>3AnPV</td>
<td>*mə(c)ə</td>
<td>məe</td>
<td>məʔe</td>
<td>məhi</td>
</tr>
<tr>
<td>3AnDV</td>
<td>*məkɪɾə</td>
<td>məɾə</td>
<td>məkɪɾə</td>
<td>məki</td>
</tr>
<tr>
<td>3AnI</td>
<td>*məki</td>
<td>məki</td>
<td>məki</td>
<td>məki</td>
</tr>
<tr>
<td>3AnPVCol</td>
<td>*mə(c)əcamo</td>
<td>məɛsa[mo]</td>
<td>məʔecamo</td>
<td>məki</td>
</tr>
<tr>
<td>3AnDVCol</td>
<td>*məjəmo</td>
<td>məjə[mo]</td>
<td>məʔjamo</td>
<td>məki</td>
</tr>
<tr>
<td>3AnICol</td>
<td>*məkɪjəmo</td>
<td>məkɪjə[mo]</td>
<td>məkɪjamo</td>
<td>məkamoro</td>
</tr>
<tr>
<td>3InPV-1</td>
<td>*(c)əni</td>
<td>sə[ni]</td>
<td>sə[ni]</td>
<td>eni</td>
</tr>
<tr>
<td>3InPV-2</td>
<td>*(c)əɾə</td>
<td>səɾə</td>
<td>səɾə</td>
<td>səɾə</td>
</tr>
<tr>
<td>3InDV</td>
<td>*məɾə</td>
<td>məɾə</td>
<td>məɾə</td>
<td>məɾə</td>
</tr>
<tr>
<td>3InI</td>
<td>*məni</td>
<td>mə[ni]</td>
<td>mə[ni]</td>
<td>məni</td>
</tr>
</tbody>
</table>

The inanimate deictics are relatively simple to reconstruct. The 3InDV, 3InA and 3InI forms, *məɾə, *iɾə and *məni, are straightforward. The two 3InPV pronouns have unexpected Karihona cognates, with a zero corresponding to an initial fricative in Tiriýó and Akuriýó,\(^\dagger\) and, in the 3InPV-2 form, with an initial ə instead of e. It is hard to know what to reconstruct here; the Akuriýó forms may result from Tiriýó influence, and the Karihona forms might be more conservative. It is a good idea to have a look at 3InPV forms in non-Taranoan Cariban languages (Karinya from Hoff 1968:270; Wayana and Apalaí from my field notes):

\(^\dagger\) The Tiriýó form oːni (cf. previous footnote) may correspond more closely to Karihona enə; however, the meaning is the opposite (Tir oːni is distal, Kh eni is proximal), and the Tir loːl : Kh le/ correspondence is just as difficult to explain as the loss of initial *c.
The other languages agree on having /e/ instead of Karihona /a/ in 3InPV-2. Two of them also have initial fricatives, while one does not; and this one (Karinya) may be closer to Taranoan than the other two. It seems wiser to postpone the decision on the initial sound of these forms until a family-wide comparative study is made; they will be reconstructed here as *(c)eni and *(c)erə.

The animate anaphorics are also easy to reconstruct. In the Karihona reflex of the collective form *namo, the last syllable seems again to be a reflex of the ‘emphatic / identificational’ particle *rə ‘REALLY’, harmonizing to /ro/ (cf. Tiriyó namo and namo ro, both possible), already mentioned in the discussion of personal pronouns in the previous section. The non-collective form has reflexes both with and without a long first vowel. In Tiriyó, the long-vowel reflex /nə:ra/ seems to be the emphatic equivalent of the short-vowel reflex /nəra/ (i.e., apparently, /nə:ra/ = /nəra/ + /ra/); it is not known whether or not long-vowel and short-vowel forms co-exist in the other languages. For the time being, it seems better to reconstruct this proto-form as *nə(:)ra.8

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8 The last syllable of *nə(:)ra also looks suspiciously like the emphatic particle. One could imagine that the third-person verbal marker *n(i)- (cf. 6.5.1.1, Table 23) came from a former Pre-Proto-Taranoan (possibly Pre-Proto-Cariban) independent third-person (clitic?) pronoun *nə, which, together with the emphatic particle, could also have given rise to Proto-Taranoan *nə(:)ra.
The animate deictics were unfortunately not attested in all languages. The non-collective forms *maki ‘Invisible’ and *makira ‘Distal Visible’ appear straightforward,\(^9\) *m\(\text{a}(c)e\) has the same problem found in the LONG cognate set, reconstructed as *m\(\text{i}(p/c)a\) (cf. 4.3); since, however, none of its known cognates in non-Taranoan Cariban languages has a reflex of *p, but rather of *c (cf. e.g. Apalaí mosé, Kaxuyana mosó), *(c) will be used instead of *(p/c).\(^{10}\)

The collective pronouns clearly involve a collective marker *-jamó or *-camó; aside from this, however, they are all very problematic. The forms *m\(\text{a}(c)ecamo\) ‘Proximal Visible’ and *m\(\text{a}jamó\) ‘Distal Visible’ are based only on Tiryó and Akuriyó; technically, they do not necessarily go all the way back to Proto-Taranoan. The Tir \(i/j\) : Ak \(i/i\)j correspondence in *m\(\text{a}jamó\) is irregular; the possibility of Tiryó influence makes itself felt. The presence of an intervocalic fricative/affricate in the Tiryó and Akuriyó reflexes of *m\(\text{a}(c)ecamo\) is exceptional, since it should have been lost intervocally (cf. 4.2.2). One possible explanation is that the collective ending *-camó was an independent word when Proto-Taranoan *c was lost, so that the *c could remain unaffected. There is some evidence that other collective markers (*-komo, *-tomo, [cf. 6.3.2], possibly also *-ne [cf. 6.4.1]) were free particles at some point. Cognates of these markers are analyzed as free words in some non-Taranoan languages; cf. Kaxuyana kumu, Waiwai kono. In Tiryó, it is not clear that the collective marker -to[mo] is really a suffix; it could still be analyzed

---

\(^9\) Notice that *makira looks exactly like *maki with the *ra emphatic particle. The difference in meaning in Tiryó (distal visible vs. invisible) indicates two lexical items; the reconstructed forms will thus be kept as separate in Proto-Taranoan. The similarity, however, is suggestive; it would be interesting to carry out a family-wide comparison of deictics to study the possible evolution of new forms from older ones.

\(^{10}\) In Tiryó, two or three high-frequency words/expressions with /s/ can have it be optionally pronounced [h] in fast speech (e.g. pijá sa ‘a little bit’, which sometimes sounds like [pijá:ha]). It might be suggested that the *(p/c) cases are actually reflexes of *c, and that the Karihona reflex /s/, like the Tiryó /s/, might have an optional fast-speech variant [h]. There is no available evidence on this point.
as a clitic (cf. Meira ms-b). A different possibility for explaining the unexpected *c is to relate it to the final syllable of the non-collective form *mα(c)e. The irregular correspondence in this word (Tir Ø : Ak ḫ : Kh ḥ) may be connected to the presence of the *c in its collective counterpart. It might be suggested that the collective form was derived from the non-collective with a suffix *-jamo (clearer in the other collective deictic forms *mα:jamo and *mαkijamo), and the last syllable of *mα(c)e changed it into *-camo: one might suppose that whatever element was responsible for the *-jamo > *-camo change was also responsible for the irregular correspondence in *mα(c)e (cf. also the end of 4.2.2, and the next section, for another possible case of *j > *c ‘strengthening’ in WHITHER *α(cj)a). However that may be, given the lack of Karihona data, and the speculative character of these two suggestions, this problem is best left unresolved.

The form *mαkijamo ‘Invisible’ is based on cognates from all three languages, all of which are surprising. Again, Tir /ij/ corresponds to Ak /j/ instead of the regular /r/, suggesting Tiriyó influence. Moreover, the Karihona form mαkamoro (of which the last syllable probably is the reflex of the ‘emphatic’ particle *rα; cf. previous section) does not have the /ij/ sequence found in Tiriyó and Akuriyó, which is odd. The reconstruction *mαkijamo is little more than a guess. Clearly, more data on third-person collective animate deictics is necessary.

A final look at the reconstructed pronominal forms suggests some speculations about pre-Proto-Taranoan (possibly even pre-Proto-Cariban) pronominal elements. The animate forms show an opposition between *n(ə) anaphorics and *mə deictics. The *n(ə) may have been related to the third-person prefix *n(i)- (cf. 6.5.1.1, Table 23), especially if the final syllable *rə is seen as a reflex of the emphatic particle *rə. The similarities
between the animate distant visible and invisible forms further suggest that they may have had the same source (*makira looks like *maki with the emphatic particle *ra, while *majamo looks like a reduced form of *makijamo). The inanimate anaphoric form may be connected to the third-person O set prefix *i- (cf. 6.2, Table 15), and perhaps also to the particle *ra. The inanimate deictics oppose proximal *(c)e forms to distal *mə forms, which suggest that these syllables may also have been independent morphemes; cf. also words like the Tiriyó locative adverb senje 'this side of', opposed to mənje 'beyond'.

6.1.3. Interrogatives. Participant interrogatives distinguish animate and inanimate (unlike English 'who?' and 'what?', which distinguish human and non-human); the others are closer in meaning to their English counterparts ('when?', 'where?', 'why?'). The table below lists the reconstructible interrogatives, together with their reflexes in the modern languages. (Karihona data from Kh1, except for /ixtarə/, which is from Kh3).

<table>
<thead>
<tr>
<th>Interrogative</th>
<th>PT</th>
<th>Tiriyó</th>
<th>Akuriyó</th>
<th>Karihona</th>
</tr>
</thead>
<tbody>
<tr>
<td>Animate ('who')</td>
<td>*ənəki</td>
<td>aki</td>
<td>əki</td>
<td>ənəki</td>
</tr>
<tr>
<td>Inanimate ('what')</td>
<td>*əti</td>
<td>ati</td>
<td>əti</td>
<td>əti</td>
</tr>
<tr>
<td>Locative / Directional</td>
<td>*ə(c/j)a</td>
<td>aja</td>
<td>əja</td>
<td>əsa</td>
</tr>
<tr>
<td>('where, whither')</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manner ('how')</td>
<td>*aeke</td>
<td>e:ke</td>
<td>aeke</td>
<td></td>
</tr>
<tr>
<td>Quantity ('how many')</td>
<td>*ahta:tə</td>
<td>ahta:tə</td>
<td></td>
<td>i(x)təra</td>
</tr>
</tbody>
</table>

The forms *ənəki, *əti and *ə(c/j)a have unexpectedly a-initial reflexes in Tiriyó, which seems to be an innovation, for two reasons: (1) no other Cariban language has it, not even Akuriyó, which is under strong Tiriyó pressure; (2) there is a possible analogical
source: Tiriyó has a series of interrogatives based on a:no ‘which’ (an interrogative without apparent cognates in the other Taranoan languages) plus a postposition: anpo ‘where’ (< po ‘locative’), anpæ ‘where from’ (< pæ ‘from’), antae ‘where by’ (< tae ‘by’). This initial a may have been generalized to the monomorphic interrogatives. The reconstruction of * añi:kí with the initial sequence * añ- is based on its generality outside of Taranoan; cf. Wayana añí:k, Karinya no:ki, Apalaí onoki. The loss of the initial * añ in Tiriyó and Akuriyó was irregular, and may be a shared innovation. The reconstruction of * ake: is not difficult, although the absence of a Karihona cognate makes its reconstruction beyond Proto-Tiriyó-Akuriyó more uncertain. In the case of * ahta:rə, since the Karihona form is from Kh3, an unreliable source for central vowels, a reconstruction with an initial * a is favored; however, it is not impossible that the initial vowel was *ə, with the initial a in Tiriyó resulting from the a:no analogy. The correspondence in *ncjə is irregular; as was said at the end of 4.2.2, it may result from the ‘strengthening’ of a *j rather than from the normal evolution of a *c. should have become nothing in Tiriyó and a glottal stop in Akuriyó, resulting in a[j] and a?ə. Maybe this interrogative is really based on the allative postposition *(w)i:jə (cf. 6.4.2.1); its original form may have been *a:jə, with the Karihona reflex being an irregular case of ‘strengthening’ (cf. a similar possibility for the collective deictic *mə(c)ecamo in the preceding section).

6.2. Person marking: The O Set.

Two different sets of person-marking prefixes occur in Taranoan languages: the A set, basically used to mark the subject of a transitive verb, and the O set, basically used to mark the object of a transitive verb (A and O, respectively, in Dixon’s 1979 notation). The
A and O sets are also used to mark the subject of intransitive verbs, conforming to the pattern that Dixon 1979 called “split-S” (cf. 6.5.1 for details). Since the A set only occurs on verbs, it is reconstructed in 6.5.1.1 below. The O set, on the other hand, occurs also on possessed nouns (marking the person of the possessor) and postpositions (marking the object). To avoid repeatedly reconstructing the same prefixes in the sections on nouns, verbs, and postpositions, the O set will be reconstructed here.\(^{11}\)

In 6.1.1, five persons were distinguished in the pronominal system: first person (1), second person (2), third person (3), first person dual inclusive (1+2), and first person exclusive (1+3). Of these five persons, four (1, 2, 3 and 1+2) have specific prefixal markers. The remaining pronoun, 1+3, does not correspond to a specific person-marking prefix; instead of that, it co-occurs with third-person markers and is treated syntactically as a third-person pronoun (cf. cases such as Portuguese a gente ‘we, us people’, semantically a first person plural pronoun, but grammatically and historically a third-person singular NP). This use of the 1+3 form is illustrated in the following Tiriyó possession examples, in which unja ‘1+3’ is compared to a free noun Sesu ‘Sérgio’, and to the ‘1+2’ form (the possessed form of ‘village’ has remnants of an older possessive suffix -\(\text{ri}\) which may appear in certain environments, as e.g. the -\(\text{h}\) in ex. (3); cf. 6.3.1.2 for details on free NP possession).

\(^{11}\) Gildea 1998 (chap. 5, 6) explicitly treats the verbal prefixes as independent from the nominal and postpositional ones, presumably because of differences such as the third-person forms, and certain small differences between nominal prefixes and their verbal counterparts in certain languages. Gildea apparently noticed such a difference in Akuryó: his Table 6.1 has yi-\(\emptyset(y)\)- (= ji-\(\emptyset(j)\)-) on nouns, whereas his Tables 5.4 and 5.7 have only \(\emptyset(y)\)- (\(\emptyset(j)\)-). The prefix ji- does not occur in the available Akuryó corpus; rather, verbal and nominal prefixes appear to coincide. Thus, there seems to be no difference between non-third-person nominal and verbal prefixes. As for the differences in the third person forms, for the purposes of the present study, they do not seem enough to justify a separate treatment, which would merely amount to repeating parts of Table 15 in different sections.
In addition to the 1, 2, 1+2, and 3 prefixes, the O set also includes a fifth prefix, usually called ‘third-person reflexive’ (3R) in Cariban grammars. This prefix marks coreference with the subject of the sentence, provided that it is a third person (cf. reflexive possessives such as Latin suus or Swedish sin), as in the following Tiriyó examples.

The following Tiriyó paradigms illustrate the use of the O set with nouns, verbs, and postpositions. Notice that finite verbs take only the three non-third-person prefixes:  

---

12 One may speculate that the prefix-final vowel i, which is part of the A set prefixes, might be a remnant of a (Pre-Proto-Taranoan, probably Pre-Proto-Cariban) third-person object marker *i- (cf. 6.5.1.1, Table 22ff). This marker might be connected to (perhaps even identical with) the third-person O set prefix i-.
Table 15 compares the various allomorphs of the O set prefixes in all Taranoan languages, together with the proposed reconstructions. (The colon in the 1 markers refers to the lengthening of the first vowel of the stem; the vowels in parenthesis in the 1+2 and 3R markers represent stem-initial vocalic alternations [cf. below])

<table>
<thead>
<tr>
<th>Person</th>
<th>PT</th>
<th>Tiriyo</th>
<th>Akuriyo</th>
<th>Karihona</th>
</tr>
</thead>
<tbody>
<tr>
<td>1, __V</td>
<td>*j:-</td>
<td>j-</td>
<td>j:-</td>
<td>j-</td>
</tr>
<tr>
<td>1, __C (voiceless stop)</td>
<td>*V:-</td>
<td>ji-</td>
<td>Ø:-</td>
<td>Ø[voice]-</td>
</tr>
<tr>
<td>1, __C (≠ voiceless stop)</td>
<td>*V:-</td>
<td>ji-</td>
<td>Ø:-</td>
<td>j-</td>
</tr>
<tr>
<td>2, __a</td>
<td>*aj-</td>
<td>a-</td>
<td>a-</td>
<td>aj-</td>
</tr>
<tr>
<td>2, __o</td>
<td>*oj-</td>
<td>o-</td>
<td>o-</td>
<td>oj-</td>
</tr>
<tr>
<td>2, __V (≠ a, o)</td>
<td>*œj-</td>
<td>œ-</td>
<td>œ-</td>
<td>œ-</td>
</tr>
<tr>
<td>2, __C</td>
<td>*œ-</td>
<td>œ-</td>
<td>aœ-</td>
<td>aj œ-</td>
</tr>
<tr>
<td>3, __V</td>
<td>*Ø-</td>
<td>Ø-</td>
<td>Ø-</td>
<td>Ø-</td>
</tr>
<tr>
<td>3, __C</td>
<td>*i-</td>
<td>i-</td>
<td>i-</td>
<td>i-</td>
</tr>
<tr>
<td>1+2, __e, aCə</td>
<td>*k(ə)-</td>
<td>k(ə)-</td>
<td>k(ə)-</td>
<td>k-</td>
</tr>
<tr>
<td>1+2, __aCo</td>
<td>*k(o)-</td>
<td>k(ø)-</td>
<td>k(ø)-</td>
<td>k-</td>
</tr>
<tr>
<td>1+2, __V (≠ e, aCə, aCo)</td>
<td>*k-</td>
<td>k-</td>
<td>k-</td>
<td>k-</td>
</tr>
<tr>
<td>1+2, __C</td>
<td>*ki-</td>
<td>ki-</td>
<td>ki-</td>
<td>ki-</td>
</tr>
<tr>
<td>3R, __e, aCə</td>
<td>*t(ə)-</td>
<td>t(ə)-</td>
<td>t(ə)-</td>
<td>t-</td>
</tr>
<tr>
<td>3R, __aCo</td>
<td>*t(o)-</td>
<td>t(ø)-</td>
<td>t(ø)-</td>
<td>t-</td>
</tr>
<tr>
<td>3R, __V (≠ e, aCə, aCo)</td>
<td>*t-</td>
<td>t-</td>
<td>t-</td>
<td>t-</td>
</tr>
<tr>
<td>3R, __C</td>
<td>*ti-</td>
<td>ti-</td>
<td>ti-</td>
<td>t-</td>
</tr>
</tbody>
</table>

The third-person markers *i- (before consonants) and *Ø- (before vowels) are automatically reconstructible. The 1+2 and 3R markers *k-*, *t- (before consonants) and *k-, *t- (before vowels), are also easy to reconstruct. These two prefixes cause morphophonological changes ('ablaut') on certain vowel-initial stems (those beginning
with e, aCo or aCo) in Tiriýó and Akuriýó, as in the following examples (the -∅ allomorph of the Tiriýó possessive suffix is again left out to facilitate reading)\(^{13}\)

(5) **Tiriýó**

<table>
<thead>
<tr>
<th>Tiriýó</th>
<th>Akuriýó</th>
</tr>
</thead>
<tbody>
<tr>
<td>ewa ‘his/her rope’</td>
<td>eteti ‘his/her hammock’</td>
</tr>
<tr>
<td>k-awa ‘our rope’</td>
<td>k-øetet ‘our hammock’</td>
</tr>
<tr>
<td>t- øwa ‘his/her own rope’</td>
<td>t- øtet ‘his/her own hammock’</td>
</tr>
<tr>
<td>apø ‘his/her arm’</td>
<td>akømi-ri ‘his/her younger sibling’</td>
</tr>
<tr>
<td>k-øpø ‘our arm’</td>
<td>k-akømi-ri ‘our younger sibling’</td>
</tr>
<tr>
<td>t- øpø ‘his/her own arm’</td>
<td>t- økømi-ri ‘his/her own younger sibling’</td>
</tr>
<tr>
<td>amore ‘his/her shadow/soul’</td>
<td>aroki ‘his penis’</td>
</tr>
<tr>
<td>k-omore ‘our shadow/soul’</td>
<td>k-oroki ‘our penis’</td>
</tr>
<tr>
<td>t- omore ‘his/her own shadow/soul’</td>
<td>t- oroki ‘his own penis’</td>
</tr>
</tbody>
</table>

Nevertheless, this effect appears to be totally absent in Karihona, as shown in the following verbal examples (cf. 6.5.1.1 for the I ⇒ you meaning of the prefix k-):

(6) **Karihona**

<table>
<thead>
<tr>
<th>Karihona</th>
<th>Karihona</th>
</tr>
</thead>
<tbody>
<tr>
<td>n-ehori ‘s/he found him/her/it’</td>
<td>n-akotø ‘s/he cut it’</td>
</tr>
<tr>
<td>k-ehori ‘I found you’</td>
<td>k-akotø ‘I cut you’</td>
</tr>
<tr>
<td>n-ëniri ‘s/he drank it’</td>
<td></td>
</tr>
<tr>
<td>t- eniri ‘his/her own drink(ing)’</td>
<td></td>
</tr>
</tbody>
</table>

Since the ablaut pattern is restricted to Tiriýó and Akuriýó (which form a subgroup within Taranoan; cf. 7.2.2), its reconstruction to Proto-Taranoan may be doubted. Notice, however, that the ablaut pattern (in the form øe, as in Tiriýó and Akuriýó, or also ø/e or

\(^{13}\) There were several inconsistencies in the aCo, aCo cases in Akuriýó (e.g. amore ‘soul, shadow’, cognate with the Tiriýó example in (5), becoming k-amore). This issue must be further investigated.
(7)   Tiriýó                Akuriýó                 Karihona

   e-pata ‘your village’  e-mota-ri ‘your shoulder’  aji-wa ‘s/he looked for you’
   e-enu ‘your eye’       e-etati ‘your hammock’   aj-epori ‘s/he found you’
   a-apə ‘your arm’       a-aroki-ri ‘your penis’   aj-akota ‘s/he cut you’
   o-oti ‘your meat’      o-otì ‘your meat’       oj-onami ‘s/he hid/buried you’

Tiriýó and Akuriýó have exactly the same prefixes, while Karihona has an extra j.

The first obvious hypothesis is to reconstruct this j to Proto-Taranoano, and to assume that it was lost in Tiriýó and Akuriýó. This idea receives further support from the existence in Tiriýó of j-adding stems, which are vowel-initial when unpossessed but become j-initial when possessed (e.g. omi ‘language’ with e- ‘2’ becomes e-jomi ‘his/her language’); these

---

14 There are certain indications that the alternation of e-initial roots should be seen as a different phenomenon from the alternation of aC- and aCo-initial stems. Certain languages have the e alternation but lack the aC or aCo ones (e.g. Apalaf apo-ri ‘his/her arm’, t-aapo-ri ‘his/her own arm’).
appear to have conserved the prefix-final consonant.\textsuperscript{15} Another favorable point is that j-
final prefixes on vowel-initial stems (but not consonant-initial ones) are attested in most
non-Taranoan Cariban languages (cf. Gildea 1998, Secs. 6.1.2, 6.2, for nominal prefixes,
and 5.2.1.5, for verbal prefixes; Gildea concludes that an independent 'relator' prefix j-
must be reconstructed to Proto-Cariban). This leads to the reconstruction of at least *aji-,
*aj- and *oj- for vowel-initial stems. For consonant-initial stems, reconstructing *aji-
(with loss of the second syllable in Tiriyó and Akuriyó), though tempting, seems to be a
bad idea, since no known Cariban language except Karihona has a non-mono-syllabic
allomorph of the second-person prefix with consonant-initial stems (e.g. Kaxuyana, Apalai
a-/o-, Karinya, Waiwai a-, Wayana a, etc.). Considering also that there are some cases of
optional a with consonant-initial stems in Karihona (Robayo [Kh1] gives one example,
aji- dae - dae, without glossing or translating it, and affirms that there is fluctuation
between aji- and a if the stem begins with a voiced stop), it seems better to reconstruct
*a-, and to assume that the syllable ji in Karihona is the result of a historical development
specific to that language.

The first-person markers represent a more complex case. The allomorph used with
vowel-initial stems is j- in all languages, and causes lengthening of the initial vowel in
Akuriyó:

\begin{align}
(8) & \quad \text{Tir} \quad \text{enu 'eye'} \quad \Rightarrow \quad \text{j-enu} \quad \text{‘my eye’} \\
& \quad \text{Ak2} \quad \text{apə ‘arm’} \quad \Rightarrow \quad \text{j-a:pa-ri} \quad \text{‘my arm’} \\
& \quad \text{Kh1} \quad \text{ona ‘nose’} \quad \Rightarrow \quad \text{j-ona-ri} \quad \text{‘my nose’}
\end{align}

\textsuperscript{15} These are precisely the stems which were reconstructed as *w-initial in Proto-Taranoan (*womi
‘language’, *woki ‘drink’, etc.; cf. 4.2.4). The conservation of the j and the loss of the w are probably
related, but the nature of this relationship is not clear.
The allomorph used with consonant-initial stems shows more variation. In Tiriyó, it is *ji-; in Akuriyó, it is Ø-, with lengthening of the first vowel of the root; in Karihona, it is Ø- and voicing of the initial consonant if it is a stop (/t, k/ > /d, g/) or /h/ (> /b/):

(9)  

<table>
<thead>
<tr>
<th>Language</th>
<th>Stem</th>
<th>Allomorph</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tir</td>
<td>pata</td>
<td>ji-pata</td>
<td>'my place'</td>
</tr>
<tr>
<td>Ak2</td>
<td>mota</td>
<td>mo::ta-ri</td>
<td>'my shoulder'</td>
</tr>
<tr>
<td>Kh1</td>
<td>tami</td>
<td>da::m ri</td>
<td>'my tobacco'</td>
</tr>
<tr>
<td></td>
<td>kaka</td>
<td>ga::ka-ri</td>
<td>'my wound'</td>
</tr>
<tr>
<td></td>
<td>hura</td>
<td>bu::ra-ri</td>
<td>'my paddle'</td>
</tr>
</tbody>
</table>

If the initial consonant of the stem is not a stop, there are cases in which the first-person marker is a Ø- (e.g. Kh1 womi-ri 'my voice/language'), or ji- (e.g. Kh1 ji-wa 's/he looked for me'). In a text, the form ji-tudaе 'I arrive / am arriving' was found, instead of the expected dudaе; more research seems necessary to characterize the distribution of ji- in Karihona.

The initial lengthening in Akuriyó could be explained by supposing that there was a syllabic first-person prefix; the lengthening, originally the result of the iambic stress pattern (cf. Chap. 3), would have remained after this prefix was lost. The first candidate is *ji-/*j-, present in both Karihona and Tiriyó. It would subsequently have disappeared in Akuriyó, leaving vowel length as a trace; it would have disappeared from stop-initial stems (after having voiced them) in Karihona, where it is now disappearing from other environments; and it would have been preserved in Tiriyó.

There are, however, at least two problems with the reconstruction of *ji-/*j-:
(i) Admitting *ji- on consonant-initial stems could explain the Akuriyó lengthening of the first vowel as a consequence of the stress system, since the first vowel of the stem would be in a stressable position (e.g. a possible *ji-mota-ri > mo:ta-ri 'my shoulder') but *j- on vowel-initial stems could not (e.g. *j-apə-ri 'my arm' would not be stressed on the first vowel, but on the second); the prefix would need an extra syllable to have this effect.

(ii) There are a few cases of Ø- as a first-person marker in Tiriyó (e.g. pire 'my arrow', pari 'my cousin/brother-in-law'); these forms present signs of being old (they are in alternation with the more regular forms ji:-re 'my arrow' [with reduction of the initial syllable; cf. 4.2.3] and ji-pa 'my cousin/brother-in-law'; the Ø-marked forms were found in a text by an older speaker, and immediately glossed by younger informants with their more regular counterparts; when Ø-forms are constructed for other words and submitted to consultants who had accepted pire and pari, they are refused). This suggests that Tiriyó ji- is innovative rather than conservative.

Alternatively, one might reconstruct the pattern of one of the two other languages, Karihona or Akuriyó. Since the Karihona pattern has instances of consonant-initial *ji-, which would bring back the problems discussed above, the best idea seems to be the reconstruction to Proto-Taranoan of the Akuriyó pattern (j- for vowel-initial stems and Ø- for consonant-initial stems, both with lengthening of the first vowel of the stem). If this is done, an explanation must be sought for Tiriyó and Karihona ji-, and for Karihona voicing. One possibility is to treat ji- as the result of analogical extention of the j- used with vowel-initial stems. This is especially interesting in Tiriyó, since the almost complete loss of the possessive suffix -ri (cf. 6.3.1.1) would render a Ø-marked first-person form
almost always homophonous with the non-possessed form (e.g. *pata* would mean both ‘place’ and ‘my place’). The analogy may have followed a schema such as:

<table>
<thead>
<tr>
<th>Pre-Tiriyó</th>
<th>Tiriyó</th>
</tr>
</thead>
<tbody>
<tr>
<td>enu</td>
<td>enu</td>
</tr>
<tr>
<td>j-enu(-ru)</td>
<td>j-enu</td>
</tr>
<tr>
<td>pata</td>
<td>pata</td>
</tr>
<tr>
<td>pata(-ri)</td>
<td>ji-</td>
</tr>
</tbody>
</table>

In connection to this, it is interesting to notice that Tiriyó seems to be in the process of merging verb stems that were originally *i-* and consonant-initial. In the verb paradigms, many forms are rather ambiguous, with an *i* that could be interpreted as belonging either to the prefix or to the stem (cf. Meira ms-b for details; cf. 6.5.1.1, Table 22ff, for the ‘prefix-final’ vowel *i* in the A set prefixes). It may have been the case that the extension illustrated in (10) above started in the verb system, based in forms like c.g. *jitu:ka* ‘s/he hit me’ (presumably historically *j-itu:ka*), which could be interpreted as *j-itu:ka* or *ji-tu:ka*, or at least that these two possible interpretations facilitated the process. Another possible factor is the first person dual inclusive prefix. As was seen above, its allomorphs are *k*- on vowel-initial stems and *ki*- on consonant-initial ones. This may have prompted the analogical creation of a similar *j-* / *ji*- pattern for first person, with *ji*- later changing into *ji*- by assimilation. Whatever its origins, the pattern would subsequently have been extended to all other uses of the O set (postpositions, nouns, verbs).

Karihona first-person initial voicing is the thorniest issue in the reconstruction of Proto-Taranoan first-person morphology. Given the evolution of Proto-Taranoan nasal
clusters into Karihona voiced stops (cf. 4.2.1, 5.2), a first idea would be to postulate a
nasal element. There is, however, no plausible etymological source for a nasal first-person
marker, and borrowing from a neighboring language seems, a priori, unlikely. Another
possibility would be to assume the Tiriyyó extension of ji- to consonant-initial stems to
have happened also in Karihona, and then postulate that it disappeared from stop-initial
stems after having voiced the stem-initial consonant. This extension of ji- might be related
to the unexpected syllable ji in the second-person allomorph sjì-. The fact that ji- does
exist in Karihona and is apparently used on non-stop-initial stems agrees with that.
However, there does not seem to be any obvious way in which ji- could have caused the
voicing of the stem-initial consonant.

Gildea 1998 (Sec. 6.2) presents a different scenario for the Karihona case. After
convincingly arguing that the Proto-Cariban first-person marker was *u- (*uj-), he
claimed that it was the cause of the voicing (and presumably also of the Akuriyyó
lengthening). He views the historical development of the examples in (9) as follows:

(1) Originally, these examples had *u-: *u-tami-ri, *u-kaka-ri, *u-pura-ri.

(2) *p > h except when next to a labial sound (a nasal consonant m, or the vowel

(3) Some intervocalic stops are voiced (probably onsets to stressed syllables); the
examples become *u-dami-ri, *u-gaka-ri, *u-bura-ri.

(4) The prefix *u- is lost; the examples become dami-ri, gaka-ri, bura-ri.

Using labial phonemes (u, m) as a conditioning environment for conserving *p has
problems. Besides postulating a rare (if at all attested) natural class, this claim would
predict that *p in *up sequences should have been preserved (and perhaps voiced, if its
syllable was stressed), so that there would be no *uh* sequences in Karihona. Nevertheless, several cases of *uh* were found (Kh1 *ikutuha* ‘lake’, *hutuha* ‘head’, *tamutuha* ‘old man’, Kh2 *hūhu* ‘foot’, *mufuhi* ‘rat’, Kh3 *ruhe:dʒi* ‘jacuraru [a lizard species]’). The preserving effect could be restricted only to the *u*- prefix, but this would not be any better than restricting the same effect to a possible *ji*- . The same can be said of the voicing effect: there is no obvious reason to prefer *u*- here either.

This leaves us with two possible scenarios:

(a) Proto-Cariban *u*- (or, alternatively, a more reduced reflex of it, e.g. *ī*) is preserved in Proto-Taranoan, causes Akuriyó lengthening (with the help of the stress system; cf. Chap. 3) and Karihona voicing, and then disappears; ji- is extended in Tiriyó and partially in Karihona to consonant-initial stems.

(b) Proto-Cariban *u*- causes lengthening and disappears before Proto-Taranoan; lengthening is conserved in Akuriyó and lost in Tiriyó and Karihona; ji- is extended in Tiriyó and Karihona to consonant-initial stems, causes voicing in Karihona and then is partially lost.

The greatest difference between (a) and (b) for Karihona is the source of the voicing. Is there any evidence in Karihona relevant to the question of whether the innovative ji- may be connected to voicing? Maybe the fact, mentioned above, that the aji-second-person marker is in free variation with a- on verb stems that begin with a voiced stop: aji-<i>a</i> ~ a-<i>a</i> (unglossed). This links a syllable ji-, which may be related to the first person marker, to an environment that involves voiced stops. Considering that Proto-Taranoan had no voiced stops, some explanation must be found for this stem-initial d. An original stem *nτa* is not implausible, but, since no cognate stems were found in the Tiriyó
and Akuriyó materials, it is hard to judge this possibility; voicing caused by the ji syllable cannot be excluded. Moreover, if the extension of second-person aji- to all consonant-initial stems (which is not explicitly mentioned in Kh1 but seems to have happened, judging by the data) accompanies the extension of ji- (both perhaps starting with the incipient merging of i- and consonant-initial verb stems), then it is difficult to see why aji- should extend to all consonant-initial stems but ji- only to non-stop-initial ones. This pattern would make more sense if ji- (and now aji-) was being lost, perhaps after having had a pattern of alternation similar to that of aji- (e.g. *ji-damí-ri ~ damí-ri).

Because of the absence of crucial data (e.g. a more detailed description of the distribution of Karihona ji- and aji-), it is not possible to decide responsibly between (a) and (b). Girard 1971:135-136 reconstructs an unspecified prefix X- that interferes with the *p > h rule. This (non-)solution is more neutral, and will thus be adopted here. The 'reconstructed form' of the first-person prefix will be written *V- to suggest that it ended in a vowel.

Voicing would then have arisen as a consequence of the loss of this *V- prefix. Presumably, voicing had been optional intervocally but became obligatory as a new means of marking first person. This would have happened before the *p > h change (cf. 4.1, 5.2), so that the first-person possessed forms of h-initial words would start with a b (as in (9) above). If voicing had not become obligatory, then consonant-initial first-person forms would have become homophonous with the prefixless forms that occur with free NP possessors (cf. 6.3.1.2 below).16

16 Such a claim, based on the 'intolerability of homophony', is always slightly problematic. In the case of the Cariban family, it is possible to point out that there are several languages with prefixless first person forms without any apparent need to innovate a new marker (e.g. Kaxuyana).
6.3. Nouns.

Nominal inflectional morphology includes person-marking prefixes (the O set, cf. 6.2 above), possessive suffixes (6.3.1.1), and number markers (6.3.2).

6.3.1. Possession. The structure of the possessed simple noun in Cariban languages is as in Fig. 2:

![Figure 2](image)

Structure of possessed nouns.

<table>
<thead>
<tr>
<th>Person</th>
<th>NOUN STEM</th>
<th>Possessive Suffix</th>
<th>Number</th>
</tr>
</thead>
</table>

The following examples illustrate this structure in Taranoan languages.

(11)  
Tiriyó  
Akuriyó  
Karihona

- ti-pakoro(-ri)  
  3R-house(-Psfx)  
  ‘his/her own house’

-  
  2-knife-Pst.Psfx  
  ‘your ex-knife’

- o-maja-hpe  
  ki-pana-:-komo  
  oj-owo-Ø-to

- i-nore-Ø  
  3-tongue-Psfx  
  1-ax-Psfx  
  1+2-ear-Psfx-Num  
  ‘Our (=of us all) ear’  
  ‘Your uncles’

- Ø-wiwi-ri  
  1-ax-Psfx  
  ‘my ax’

Since this basic structure can be found in all Taranoan languages, it will be reconstructed as such to Proto-Taranoan. The person-marking prefixes that occur on possessed nouns are as reconstructed in 6.2 above. The remaining morphological markers will be discussed below.
6.3.1.1. **Possessive suffixes.** These suffixes identify possessed stems, and also indicate whether the possession is present or past ('my' vs. 'my ex-'). The following table lists all the attested allomorphs and their Proto-Taranoan reconstructions.

| Table 16  |
|-----------------|-----------------|-----------------|-----------------|
| Taranoan possessive suffixes (brackets indicate syllable reduction). |
| PT | Tiriyó | Akuriyó | Karihona |
| Present Possession | | | |
| Possessive suffix 1, V(≠ u)___ | *-ri | [-ri] | -ri | -ri |
| Possessive suffix 1, u___ | *-ru | [-ru] | -ru | -ru |
| Possessive suffix 2 | *-∅ | -∅ | -∅ | -∅ |
| Past Possession | | | |
| Possessive suffix | *-hpə | -hpə | -(h)pə | -hə |

The reconstructions are straightforward. The first present possessive suffix, with allomorphs *-ri and *-ru, was conserved in all languages. In Tiriyó, it was conserved as such only in rare environments; like a stem-final reducing syllable, it can reduce to h, vowel length, or, more frequently, when no clitics follow, to nothing. This must be a rather recent loss; De Goeje 1909 still has -ri in most of his possessed examples. In Akuriyó, it can apparently reduce, but much less often than in Tiriyó; it usually remains even when there are no following clitic particles. Cf. 4.2.3, and also 6.3.2 for an example of possessive suffix reduction with number markers.

There is a class of stems, apparently the same in all three languages, that do not take any suffix when possessed; this pattern is what was reconstructed as *-∅ in the above
table. These stems include e.g. WIFE *piti (Tir. i-pi, Kh1 i-hiti), *putupə ‘head’ (Tir. i-
putupə, Ak2. i-pu:pə, Kh2 i-hutuhi), etc. Due to some inconsistencies, especially in
Akuriyó, it is not always possible to reconstruct a stem as belonging to the *-rİ or to the
*-Ø class. The clear cases are easy to identify in the etymological dictionary in Chap. 9.17

The past possessive suffix is also automatically reconstructible as *-hpə. The
Karihona development is perfectly regular (coda h’s are lost, and *p becomes /h/); e.g.
Kh1 waku-hə ‘guts’ (orig. Spanish ‘tripas’); cf. Tiriyó i-waku-hpə ‘his guts’, from waku
‘belly’, i.e. his former belly. The h in Akuriyó was barely hearable and may have resulted
from Tiriyó influence. 

6.3.1.2. Free NP possession. In addition to forms inflected with person markers, a special
non-prefixed form also occurs when an overt third-person possessor NP immediately
precedes the possessed noun; this strategy is obligatory when the possessor is the 1+3
pronoun, as in the following Karihona example:

(12) ana kanawa-ri
  1+3 canoe-Psfx
  ‘our (exclusive) canoe’

Third-person Ø- with a preceding overt possessor (with both vowel- and
consonant-initial stems) exists in the three languages (parenthetical material is optional):

17 Two other possessive suffixes are frequently mentioned in non-Taranoan Cariban languages: -ti and -ni. Cognates of -ni class words in Taranoan, however, do not take -ni (e.g. Wayana i-pakoro-n ‘his/her house’, but Tiriyó i-pakoro(-rİ), while -ti class words simply have ti as their last syllable and take no suffix (e.g. PT *piti ‘wife’, *etipoti ‘beard’). It is not clear whether an older *-ti suffix has been reanalyzed as part of the stem in Taranoan, or whether an old stem-final syllable has been reanalyzed as a possessive suffix in certain non-Taranoan languages; more family-wide comparative research is necessary to address this issue.
(13) Karihona                        Akuriyó                        Tiriyó

Pedro nidomo-ri                     makirə pana-ri                 Kan munə
Pedro chief-Psfx                     3AnDV ear-Psfx                  god descendants
‘Pedro’s chief’                      ‘That one’s ear’                ‘Children of God’

Pedro iwasa-ri                      makirə conata(-ri)              arakapusa ari
Pedro machete-Psfx                   3AnDV nose(-Psfx)                 rifle ‘containeer’
‘Pedro’s machete’                    ‘That one’s nose’                ‘rifle shell’

In Tiriyó, however, the preferred way to signal possession by a preceding overt
possessor is to inflect the possessed noun for third person (with i- or Ø-), thus producing
a ‘John his-dog’ construction:

(14) Sesu i-pakoro
    Sérgeo 3-house
    ‘Sérgeo’s house’

The N Ø-N construction looks older than the N i-N construction: the attested
examples show a ‘tighter semantic integration’ reminiscent of incipient lexicalization (as in
the above ‘children of God’, which is used to mean people in general, especially
Christians, rather than simply descendants of a divinity) and are far less frequent in texts..
Notice also that, in Akuriyó and Karihona, the presence of the possessive suffix -ri
distinguishes the possessive construction (N N-ri) from cases of apposition or nominal
predication (which can occur as N N constructions), thus differentiating ‘Mary’s doctor’
from ‘Mary, the doctor’ or ‘Mary is a doctor’. Since the possessive suffix -ri is being lost
in Tiriyó, the i- prefix in the N i-N construction can be seen as occupying its role to
maintain these distinctions, and thus as more recent. Therefore, Ø- (and the N Ø-N-ri
construction) is reconstructed here to Proto-Taranoan. Cf. Gildea 1998 (Sec. 6.1.2), who also concludes that the N i-N pattern is innovative, based on a much larger set of Cariban languages. He further reconstructs N j-N-ri (a more conservative version of the N N-ri pattern, including the j- ‘relator’ prefix) to Proto-Cariban.

6.3.2. Number markers. There are two markers of collective number on nouns (non-collective number is indicated by their absence). One of them (glossed simply as ‘Col’) indicates that the noun in question is collective, while the other (glossed as ‘P.Col’) occurs only on possessed nouns, indicating that the possessor is collective. These markers are presented here as suffixes, but there is some evidence (at least in Tiriyô) of their behaving like clitic particles; in some non-Taranoan Cariban languages, their cognates appear to be phonologically independent words.

(15) maja-ton i-maja-h-ton i-maja-ː-kon
knife-Col 3-knife-Psfx-Col 3-knife-Psfx-P.Col
‘(all the) knives’ ‘(all) his/her knives’ ‘their (=all of them’s) knives’

In Table 17, these markers are compared and reconstructed.

<table>
<thead>
<tr>
<th>Number markers</th>
<th>PT</th>
<th>Tiriyô</th>
<th>Akuriyô</th>
<th>Karihona</th>
</tr>
</thead>
<tbody>
<tr>
<td>Col</td>
<td>*tomo</td>
<td>-to[mo]</td>
<td>-tomo</td>
<td>-to</td>
</tr>
<tr>
<td>P.Col</td>
<td>*komo</td>
<td>-ko[mo]</td>
<td>-komo</td>
<td>-ko</td>
</tr>
</tbody>
</table>
These reconstructions are somewhat problematic. The Tiriyó and Akuriyó reflexes seem to reflect a Proto-Taranoan *tomo, *komo, but the Karihona reflex lacks the last syllable *mo. One possibility would be to reconstruct *-to, *-ko to Proto-Taranoan and to treat the *mo syllable as a Tiriyó-Akuriyó innovation; it might at some point have been an independent particle/marker which was lost in Karihona, or it might have resulted from analogy with the pronominal collective forms that end in mo (cf. Tables 12 and 13). However, forms with a reflex of mo are the overwhelming majority in the family (cf. Gildea 1998, Table 6.2, in which *komo, reconstructed to Proto-Cariban, occurs in 23 languages). The Karihona reflex is somewhat surprising; considering the tendency for final syllables not to reduce in Karihona (cf. 4.2.3), full forms like -tomo or -komo should have been preserved (as in e.g. FLESH *punu > Kh1 hunu). It seems that an irregular reduction of the final syllable must have happened in Karihona. One possibility is that the reduced allomorphs (as in Tiriyó -ton, -kon) already existed in Proto-Taranoan; these would have naturally evolved into Karihona -to, -ko with the loss of nasal codas (cf. 5.2). Another example of a similar evolution is ONLY *r(ā)ejene > Kh1 reke (and maybe also NOT2 *wa:kene > Kh1 ake; the *-kene at the end of ONLY and NOT2 may be a particle); notice that, as in the *komo and *tomo cases, a reduced form exists as well in Tiriyó (ræken, wa:ken) and could have become Karihona reke by nasal coda loss (leaving aside the irregular vowel correspondence, which may have resulted from some assimilatory process).

In Tiriyó, collective markers on possessed nouns cause reduction of the possessive suffix (cf. 6.3.1.1 above). In Akuriyó, this seemed to be the case as well. In Karihona
(Kh1), cases of both reduced and non-reduced possessive suffixes were found, but the author did not explicitly describe their distribution.

<table>
<thead>
<tr>
<th>Akuriyó (Ak2)</th>
<th>Karihona (Kh1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ki-pana-ri</td>
<td>oj-owo-ri</td>
</tr>
<tr>
<td>1+2-ear-Psfx</td>
<td>2-uncle-Psfx</td>
</tr>
<tr>
<td>‘our (dual incl.) ear(s)’</td>
<td>‘your (non-coll.) uncle(s)’</td>
</tr>
<tr>
<td>ki-pana-::komo</td>
<td>oj-owo-ri-ko</td>
</tr>
<tr>
<td>1+2-ear-Psfx-P.Col</td>
<td>2-uncle-Psfx-P.Col</td>
</tr>
<tr>
<td>‘our (coll. incl.) ear(s)’</td>
<td>‘your (coll., “you all’s”) uncle(s)’</td>
</tr>
<tr>
<td>ki-pana-::tomo</td>
<td>oj-owo-to</td>
</tr>
<tr>
<td>1+2-ear-Psfx-Col</td>
<td>2-uncle-Col</td>
</tr>
<tr>
<td>‘(all) our (dual incl.) ears’</td>
<td>‘(all) your (non-coll.) uncles’</td>
</tr>
</tbody>
</table>

Whenever the conditioning details of the Karihona pattern, it seems to be the most conservative one, in that \(-ri\) does not obligatorily reduce. This possibility is thus tentatively reconstructed to Proto-Taranoan, at least until more is known about \(-ri\) reduction in Karihona.

### 6.4. Postpositions.

Inflectional morphology on postpositions includes person-marking (the O set; cf. 6.2) and number marking (6.4.1). Certain specific cases of special interest are considered in 6.4.2.

#### 6.4.1. Postpositional inflection.

The structure of inflected postpositions is as shown in Fig. 3:
Person is indicated by O set prefixes (reconstructed in 6.2 above). Collective number is indicated by a suffix, which has the following forms:

Tir  -ne (e.g. i-pəkə-ne ‘about/concerning all of them’)

Ak2  -ne, -ʔne (e.g. i-kutuwa-ne ‘on top of all of them’,
              ʔ-pəkə-ʔne ‘about/concerning all of you’)

Kh1  -ne (e.g. i-ja-ne ‘to all of them’)\(^\text{18}\)

The Tiriyó and Akuriyó reflexes suggest that the collective marker had the effect of making the preceding syllable heavy. In Akuriyó, this weight can be realized as vowel length or as a glottal stop, as would be expected from the Akuriyó rhythmic stress pattern (cf. Chap. 3). Since it was assumed that the glottalized realization of weight should (tentatively) be considered innovative, the collective marker will be reconstructed as \*-\text{ne}\) rather than \*-\text{ʔne}\) (cf. also the \*: correspondence in 4.2.3).\(^\text{19}\)

\(^{18}\) This Karihona collective form was not found in the written corpus, but directly from the Kh1 author, Camilo Robayo (personal communication).

\(^{19}\) The form \*-\text{ʔne}\) is attested in several non-Taranoan Cariban languages (e.g. Kaxuyana -ʔhe) and could be seen as a direct antecedent of Proto-Taranoan -\text{ne}. However, the earliest reconstructible form of this marker apparently has an initial fricative, something like \*-\text{cine}\) (cf. Apaláfi xine in oya xine [oia jine] ‘to you all’ [Koehn & Koehn 1986:96]). This makes it more probable that Taranoan -\text{ne}\) results from \*-\text{c}-loss, with the resulting \(i\)-diphthong evolving into vowel length (cf. Karinya -\text{ine}\) [Hoff 1968:253], probably closer than Kaxuyana -ʔhe to a direct antecedent of Proto-Taranoan \*-\text{ne}\).
The paradigm below exemplifies Proto-Taranoan postpositional inflection by reconstructing the paradigm of PT *pəka ‘about, concerning’ (the non-inflected form is used with overt nominals, as in Tir. maja pə ‘concerning/about the knife’):

<table>
<thead>
<tr>
<th>Table 18. Infl. paradigm of the postposition *pəka ‘about, concerning’</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>non-inflected form</strong></td>
</tr>
<tr>
<td>to/by 1</td>
</tr>
<tr>
<td>to/by 2</td>
</tr>
<tr>
<td>to/by 3</td>
</tr>
<tr>
<td>to/by 1+2</td>
</tr>
<tr>
<td>to/by 3Col</td>
</tr>
</tbody>
</table>

6.4.2. Special cases.

6.4.2.1. The Postposition *wəka ~ *ja. In this section, we shall examine certain specific cases of interest. The first one involves the dative/allative postposition (Tir. ja, Ak2 ja, Kh1 ja), also used to mark oblique agents (X ja = ‘(done) by X’) and causees. Its inflected forms are listed and reconstructed in Table 19.

<table>
<thead>
<tr>
<th>Table 19. Inflection paradigm of the postposition *wəja/oja/ja ‘dative/allative/agentive’.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>non-inflected form</strong></td>
</tr>
<tr>
<td>concerning 1</td>
</tr>
<tr>
<td>concerning 2</td>
</tr>
<tr>
<td>concerning 3</td>
</tr>
<tr>
<td>concerning 1+2</td>
</tr>
<tr>
<td>concerning 3Col</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>
The Tiriyó first-person form *wi'ja is surprising. A first idea is to analyze it as the first-person pronoun *wi: followed by the non-inflected form; one might assume that the original inflected form was *ji-ja, as in Karihona, and that it was replaced by *wi'ja, perhaps due to its dangerous phonetic similarity with the third-person form i-ja. However, the pronoun *wi: should have a long vowel when followed by a clitic (cf. *wi:rə 'really me' and *wi:ta 'not me', with the particles rə 'really' and ta 'Neg.').

The Akuriyó reflexes point to a different story. The first person form *wi'ja (which has its first vowel regularly lengthened; cf. 6.2), when compared with the second person ojoa, suggests a reducing stem wi'ja, similar to e.g. PT *mi'ta/*nta (cf. 4.2.3). This would explain the lengthening of the person-marking prefixes attested in Tiriyó (2, 3, 1+2) and Akuriyó (3, 1+2): the variation in the 1+2 form suggests monophthongisation, resulting in a single long vowel. The 3 form apparently went first, the 1+2 form is now under attack, while the 2 person has remained as a diphthong. This supports the reconstruction of a Proto-Taranoan reducing inflectional stem *wi'ja/*oja, a hypothesis further strengthened by the fact that wi'ja or uja is a cognate form attested in many non-Taranoan languages (e.g. Kaxuyana wi'ja, Hixkaryana wy, Panare uja). Gildea 1998 (Table 7.2) reconstructs this postposition to Proto-Cariban as *wi'ja in all its forms. These non-Taranoan forms occur also as non-inflected forms, with an overt NP; in the three Taranoan languages, however, only ja occurs (Tir. pijai ja ‘to/by the shaman’; Ak2 anja ja ‘to/by us (1+3)’; Kh1 akai jaj ‘to/by the snake’). Therefore, *wi'ja is reconstructed as an inflected stem, with a non-inflected form *ja.
6.4.2.2. Locative and directional postpositions. The following table lists all locative and directional postpositions attested in more than one Taranoan language (except *wija; cf. previous section) in their non-inflected form:

<table>
<thead>
<tr>
<th>Postposition</th>
<th>PT</th>
<th>Tiriýó</th>
<th>Akuriyó</th>
<th>Karihona</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adessive ('at')</td>
<td>*po</td>
<td>po</td>
<td>po</td>
<td>ho</td>
</tr>
<tr>
<td>Allative ('to(ward)')</td>
<td>*pona</td>
<td>pona</td>
<td>pona</td>
<td>hona</td>
</tr>
<tr>
<td>Inessive ('in')</td>
<td>*tawə</td>
<td>tao</td>
<td>tawə</td>
<td>tawə</td>
</tr>
<tr>
<td>Illative ('into')</td>
<td>*taka</td>
<td>ta[ka]</td>
<td>taka</td>
<td>taka</td>
</tr>
<tr>
<td>Perlative ('along, by')</td>
<td>*tae</td>
<td>tae</td>
<td>tae</td>
<td>tae</td>
</tr>
<tr>
<td>Aquatic inessive ('in (water)')</td>
<td>*hkwawə</td>
<td>hka[o]</td>
<td>kwawə</td>
<td></td>
</tr>
<tr>
<td>Aquatic illative ('into (water)')</td>
<td>*hkwak(a/i)</td>
<td>hka[ka]</td>
<td>kw[a][ka]</td>
<td>(x)kaki (Kh3)</td>
</tr>
<tr>
<td>Temporal ('in/on/at [time]')</td>
<td>*me awə</td>
<td>mao</td>
<td>me(?)awə</td>
<td></td>
</tr>
</tbody>
</table>

The reconstruction of *po, *pona, *tawə, *taka and *tae presents no problems. The development of *me awə into Tiriýó mao causes no surprises: *wə > o (cf. 4.2.4), and the sequence *me ao is simplified to mao. The ‘water’ postpositions, on the other hand, are less straightforward. The initial kw group in Akuriyó is rather surprising; since, however, it is attested in many non-Taranoan Cariban languages (e.g. the Wayana cognate kwaw; cf. Derbyshire [to appear]), it will be reconstructed to Proto-Taranoan. The loss of the w in Tiriýó may have been parallel to the loss of the e in *me awə > mao, especially if the kw sequence was really ku (cf. below): both would be cases of simplification of trivocalic sequences. The Tiriýó reflex also has an aspiration (which might be compared to
the parenthetical velar fricative in Karihona, from Kh3, in case it represents something other than a slight transitional sound, but which appears to be unrelatable to the Akuriyó initial cluster $kw$, which should be reconstructed as $^*h$ (cf. 4.2.3). However, Tiriyó seems to be the only Cariban language that has this $h$. In spite of this, it will be tentatively reconstructed to Proto-Taranoan. No explanation for it will be offered here.

There are more locative postpositions in Tiriyó ($awə$ ‘inside’, $ju:wə$ ‘on top of’, $:ro:wə$ ‘in the middle of’) and Akuriyó ($kutuω$ ‘on top of’), suggesting the existence of an ‘inessive’ element $-wə$, the same is true for directionals in -[ka] in Tiriyó ($:ro:na[ka]$ ‘to the middle of’; the $-na$ may be comparable to the final syllable of $pona$). Given the above data, they already existed in Proto-Taranoan. Derbyshire [to appear] identifies the elements $-wo$, $-ka$ and $-je$ in Hixkaryana, and their cognates in related languages as locative suffixes, meaning ‘in’, ‘into’, and ‘from’, respectively. Clearly, $-wo$ and $-ka$ correspond to Proto-Taranoan $^*wə$ and $^*ka$; possible cognates of $-je$ can be found in other Tiriyó postpositions (e.g. $pə-e$ ‘from’).

Derbyshire [to appear] called ‘postpositional stems’ the monosyllabic elements to which locative suffixes are added and claimed that they convey information about the semantics of the noun which they govern; e.g. Hixkaryana $kwa$ ‘liquid’ in $kwa-wo$, $kwa-ka$, $kwa-je$, $ho$ ‘flat surface’ in $ho$, $ho-na$, $ho-e$, $ta$ ‘open area’ in $ta-wo$, $ta-ka$, $ta-je$ (cf. Proto-Taranoan $^*hkwa$, $^*po$, $^*ta$). It is interesting to observe that at least some of these postposition stems seem to be relatable to certain ‘formatives’ found in other Taranoan stems. For instance, many words for liquids may have an element $ku$ (URINE $^*cuku$, SALIVA $^*etaku$, SAP $^*euku$, SWEAT $^*eramuku$). It also seems to occur in LAKE $^*ikutupə$ (notice that a possible suffix $^*-tupə$ or $^*-tipə$ occurs on several Taranoan
cognate sets: OLD.MAN *tamutupa [cf. Tiriyó tamu ‘grandfather’], HEAD *putupa,
BONE *jetipa [cf. TOOTH *je]; this *-tupa / *-tipa suffix might be an old, lexicalized
form of the past possession marker *-hpə described in 6.3.1.1 [reconstructed to Proto-
Carib as *-tipu in Gildea 1995:99, and as *-tupu in Gildea 1998, Table 7.1]). If this ku is
seen as having been, at some point in the history of Cariban languages, an independent
morpheme (perhaps an old word for ‘water’), then a postposition like *kwawə could be
derived from an earlier *ku awə (cf. Tiriyó awə ‘inside’, and also Hixkaryana jawo in
Derbyshire [to appear]; notice that the initial syllable (j)a may itself be a formative). The
*ta postpositions might be similarly related to a possible formative *ta, which occurs in
words like MOUTH *mita, and SALIVA *etaku. The history of these formatives clearly
precedes Proto-Taranoan, and probably Proto-Cariban as well; they would constitute a
fascinating object for future research.

6.4.2.3. ‘Experiencer’ postpositions. A typologically uncommon feature of Taranoan
languages is the existence of a series of postpositions that translate ‘experiencer’
predicates. Tiriyó is especially rich in such postpositions: se ‘wanting/desiring’, (i)no
‘angry at’, etc. The first three are attested in at least Tiriyó and Karihona, the two most
distant Taranoan languages, and can thus be reconstructed to Proto-Taranoan. The fourth
one is attested in Tiriyó and Akuriyó; technically, it can only be reconstructed as far back
as Proto-Tiriyó-Akuriyó.

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20 It is almost impossible to resist the temptation of comparing this element to words for ‘water’ in non-
Cariban languages, as e.g. Canela-Krahó (Gean) cò [ko] (cf. Popjes & Popjes 1986:135), as possible
evidence for long-range genetic relationships.
Table 21.
Taranoan ‘experiencer’ postpositions.

<table>
<thead>
<tr>
<th>Postposition</th>
<th>PT</th>
<th>Tiriyó</th>
<th>Akuriyó</th>
<th>Karihona</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cognoscitive ('know')</td>
<td>*waːra</td>
<td>waːra</td>
<td>waːra</td>
<td>waːra</td>
</tr>
<tr>
<td>Ignorative ('not know')</td>
<td>*wameke</td>
<td>wame[ke]</td>
<td>wameke</td>
<td>wameke</td>
</tr>
<tr>
<td>Desiderative ('want')</td>
<td>*se</td>
<td>se</td>
<td>ce</td>
<td>se</td>
</tr>
<tr>
<td>Aversive ('afraid of')</td>
<td>*ino</td>
<td>ino, no</td>
<td>ino</td>
<td>ino</td>
</tr>
</tbody>
</table>

In their conjugated forms, the Akuriyó cognoscitive and ignorative postpositions are irregular: the first-person form has an initial syllable wi- (Ak2 wiwaːra ‘known to me’ = ‘I know’, wiwameke ‘unknown to me’ = ‘I don’t know’; cf. Tir ji-waːra, ji-wame, Kh1 ji-warə). The Akuriyó second-person form a waːra ‘known to you’ = ‘you know’ has an unexpected i (cf. Tir a-waːra), which may be a reflex of the wi-. The origin of this extra syllable remains unclear.

6.5. Verbs.

Taranoan languages, like all members of the Cariban family, have a moderately complicated system of verb inflections, including person, number, tense-aspect-modality (TAM), and evidentiality, with a moderate degree of fusion (cf. Derbyshire [to appear], or, for a more detailed exposition, Gilda 1998 [Chap. 5]). The structure of the verb word is sketched in Fig. 4, and further illustrated with some examples.
Figure 4
Structure of inflected verbs.

<table>
<thead>
<tr>
<th>person</th>
<th>VERB STEM</th>
<th>TAM-1</th>
<th>number</th>
<th>TAM-2 / evidentiality</th>
</tr>
</thead>
<tbody>
<tr>
<td>1, 2, 1+2, 3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Present, Future</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Immediate Past, Distant Past</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(17) Tiriyó: Akuriyó: Karihona:

ni-ponee-ja-n
1A-tell-TAM1-Evid
's/he is telling (a story)'

kit-oo-nee-kaa-ki-i
1+2S1-sleep-TAM1-Num-Evid
'we all will sleep'

mi-oo-∅-tə-i
2S-go-TAM1-Num-Evid
'you all are going'

m-eene-∅-ne
2A-see-Num-TAM2
'you all saw it'

kaʔ-e(h)-tə-u
1+2S1-come-Num-TAM2
'we all have come'

aj-eenehoo-∅-wi
2O-make.bring-Col-TAM2
's/he had you all come here'

Given the obvious parallelism, the same order can be reconstructed to Proto-Taranoan. In the following sections, the morphemes that occur in each slot will be compared (Person in 6.5.1, TAM and Number/Evidentiality in 6.5.2).

6.5.1. Person. The same four persons distinguished by nominal and postposition morphology (cf. 6.2) exist in the verb system: 1, 2, 1+2, and 3. As before, the 1+3 form is treated grammatically as a third person, co-occurring with 3 forms of the verb.

Transitive and intransitive verbs differ as to the number of person-marking prefixes that they can take (cf. e.g. Gilda [to appear], Meira ms-a for detailed descriptions). Therefore, they will be treated separately in the two following subsections.
6.5.1.1. Transitive verbs. For SAPs (speech act participants, i.e., in the Cariban case, 1, 2 and 1+2), there are two prefix sets. One of them marks the SAPs as subjects, with an implicit third-person object (the A-marking, or direct, prefixes), while the other marks them as objects, with an implicit third-person subject (the O-marking, or inverse, prefixes: cf. Gildes 1998 [Chap. 5]). This state of affairs can be described as a two-level hierarchy in which SAPs outrank third persons (1/2 > 3): whenever a SAP and a third person are participants, the SAP is marked (with an O prefix if it is an object, or with an A prefix it is a subject), while the third person is not. There are two additional prefixes; one indicates that both the subject and the object are SAPs (and is thus called local prefix), and the other that both are third persons. The latter disappears if an overt object NP directly precedes the verb.

The following examples illustrate the use of these prefixes in Tiriyó, with the verb stem eta ‘to hear’ in the immediate past form. Note that the 1+2A prefix lengthens the initial vowel of the verb stem, while the 1+2O and 12AO prefixes change it into a /a/; cf. comparative table below. The glosses include A (= transitive subject), O (= transitive object), and AO (= both). Thus, 3AO refers to both A and O being third persons, and 12AO refers to either first person A and second person O (1A2O, ‘I ⇒ you’), or second person A and first person O (2A1O, ‘you ⇒ me’).21 The gloss 3OV refers to the rigid object-verb (OV) order with which the corresponding ‘prefix’ (or lack thereof) co-occurs.

---

21 The 1+2O and 12AO prefixes are kept formally distinct here, but they coincide completely in their allomorphic behavior; it may be better to say that there is a single prefix k-, indicating involvement of the first and second persons, with at least one of them (or both) being a patient. The reconstruction of the 1+2O prefix in 6.2 is assumed to be valid for the 12AO prefix as well.
(18)  

A-marking  
*(direct set)*  

<table>
<thead>
<tr>
<th>Person</th>
<th>Prefix</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>1A</td>
<td>w-eta</td>
<td>‘I heard him/her/it’</td>
</tr>
<tr>
<td>2A</td>
<td>m-eta</td>
<td>‘you heard him/her/it’</td>
</tr>
<tr>
<td>1+2A</td>
<td>k-eta</td>
<td>‘I+you heard him/her/it’</td>
</tr>
</tbody>
</table>

O-marking  
*(inverse set)*  

<table>
<thead>
<tr>
<th>Person</th>
<th>Prefix</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>1O</td>
<td>j-eta</td>
<td>‘s/he heard me’</td>
</tr>
<tr>
<td>2O</td>
<td>o-eta</td>
<td>‘s/he heard you’</td>
</tr>
<tr>
<td>1+2O</td>
<td>k-eta</td>
<td>‘s/he heard me + you’</td>
</tr>
</tbody>
</table>

All SAPs *(local)*:  
12AO k-eta ‘I heard you’, ‘you heard me’  
No SAPs:  
3AO n-eta ‘s/he heard him/her/it’  
Preceding O NP:  
3OV Sesu Ø-eta ‘s/he heard Sérgio’

The O set has already been reconstructed in 6.2 above. The remaining transitive prefixes are compared below. Tables 22-23 list the various allomorphs of the transitive person-marking prefixes of the Taranoan languages, together with their reconstructed Proto-Taranoan equivalents. The data is from Ak1, Ak2, and Kh1. Every allomorph is listed together with the context where it occurs. A discussion of the reconstructions follows.

<table>
<thead>
<tr>
<th>Person</th>
<th>PT</th>
<th>Tiriyó</th>
<th>Akuriyó (Ak1,Ak2)</th>
<th>Karihona (Kh1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1A, __C</td>
<td>*i-</td>
<td>wi-</td>
<td>i-</td>
<td>i-</td>
</tr>
<tr>
<td>1A, __V</td>
<td>*Ø-</td>
<td>w-</td>
<td>Ø-</td>
<td>Ø-</td>
</tr>
<tr>
<td>2A, __C</td>
<td>*mi-</td>
<td>mi-</td>
<td>mi-</td>
<td>mi-</td>
</tr>
<tr>
<td>2A, __V</td>
<td>*m-</td>
<td>m-</td>
<td>m-</td>
<td>m-</td>
</tr>
<tr>
<td>1+2A, __C</td>
<td>*kici-</td>
<td>ki:-</td>
<td>kə?i-, ki?i-</td>
<td>kise-, kisi-</td>
</tr>
<tr>
<td>1+2A, __e</td>
<td>*kic-</td>
<td>k:-</td>
<td>kə?-</td>
<td>kis-</td>
</tr>
<tr>
<td>1+2A, __V (≠ e)</td>
<td>*kit-</td>
<td>kit-</td>
<td>kit-</td>
<td>kis-</td>
</tr>
</tbody>
</table>
The simplest case is that of the *m- allomorph of the 2A prefix, since it was conserved without any change in all Taranoan languages (cf. e.g. m-ene ‘you saw it’, in the Immediate Past [cf. 6.5.2 below]), which has exactly the same form in the three languages). The reconstruction of the 1A markers *∅- and *i- is based on its occurrence in the two independent subgroups of Taranoan, Karirona and Tiriyó-Akuriyó. Moreover, given that word-initial w was not usually lost in Karirona and Akuriyó (cf. sets such as BELLY *waku [Tir waku, Ak2 i-waku[-ru], Kh1 waku-ru], or AÇÁF *wapu [Tir wapu, Ak2 wapu, Kh3 wahú]), there is no phonological motivation for it (cf. also the discussion on the evolution of first-person markers in 6.5.1.2). The *kît- and *kíc- allomorphs of the 1+2A prefix were reconstructed as different, since their reflexes in Akuriyó and Tiriyó were kept separate; the presence of kis- in Karirona, instead of the expected regular reflex *kît- , is probably due to the generalization of kis- to all vowel-initial stems. The *c in *kíc- follows a regular correspondence (intervocalic *c > Kh c/s, Ak ? , Tir ∅; cf. 4.2.2). In Tiriyó, after *c-loss, the i assimilated fully to the first stem vowel, thus generating the morphophonological lengthening effect characteristic of this prefix: *kícV > *kîtV > kV:.

The presence of a instead of i in Akuriyó is somewhat surprising; it may be due to the following glottal stop. Considering also the presence of both kare- and kir- as reflexes of *kíc- (where the vowel variation may be due to transcription mistakes), and the general presence of *i in all allomorphs of the 1+2A prefix, it seems simpler to reconstruct an *i rather than an *a.

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Note that the distribution of *kît- and *kíc- is suggestive of palatalization (*kíc- only occurs before /c/), which is also consistent with the consonant-initial allomorph *kíc-, and is in good agreement with the absence of the sequences *ti and *te (cf. 4.1). It is tempting to reconstruct a unified pre-PT prefix *kît(i)- ‘1+2A’ (cf. 6.5.1.2, Table 24ff for a similar reasoning concerning first-person intransitive markers).
The 12AO prefix is attested with this meaning in all three languages (cf. Tir k-ata ‘I heard you / you heard me’, Ak2 ki-pananipi ‘I listened to you / you listened to me, and Kh1 k-ehori ‘I found you’ [and presumably also ‘you found me’, though the author did not say so]). The allomorphic pattern coincides, in all cases, with the pattern of the 1+2O prefix \(k\)-; this coincidence (or identity, if these prefixes are analyzed as the same) must also be reconstructed for Proto-Taranoan.

The same considerations are valid for the allomorphs occurring on consonant-initial verb stems; the only remaining problem is the reconstruction of the prefix-final vowel as \(*i\) rather than \(*i\). This implies the supposition that the difference observed in Karihona (which has \(i\) in the 1A and 1+2A forms,\(^{23}\) but \(i\) in the 2A form; notice also \(i\) in the 3AO form in Table 23 below) does not reflect an original difference. The basic reason for this is the assumption that, all other things being equal, the usual tendency in the Cariban family is for unstressed vowels to become \(i\) (and further to disappear; cf. Gildea 1995 on the process of syllable reduction in Cariban). The conservation of an original \(*i\) in the 1+2A form would have resulted from the effect of the palatal environment \(*c\) in \(*kic\)-, and maybe also from the fact that, being in the second syllable of the final word, this \(*i\) would have been stressed (cf. Chap 3 for rhythmic stress). In the 1A form, it may be related to the impossibility of the occurrence of Proto-Taranoan \(*i\) in word-initial position.\(^{24}\)

\(^{23}\) The variation in Karihona between \(ki\) and \(ki\) is not a synchronic phenomenon; rather, it is the result of an apparent change in analysis. Robayo 1986 has always \(-ki\); Robayo 1987, always \(ki\) (spelt \(ki\)), in accordance with his analysis of surface \([c\,e\,i]\) as underlying \(te\, (i)\).

\(^{24}\) These ideas are somewhat speculative and must be treated with caution. It is also possible to imagine that the palatal environments actually caused a change from \(*i\) to \(*i\) (again, the sequence \(*ci\) is unattested). A cursory comparison with non-Taranoan Cariban languages does not help much: some have only prefix-final \(i\) (e.g. Wayana), but some have \(i\) also (e.g. Kaxuyana) or exclusively (e.g. Panare). Thus, although the Cariban tendency of evolution towards \(i\) supports the \(*i > \(i\) hypothesis, the question is far
Table 23
Transitive third-person prefixes

<table>
<thead>
<tr>
<th>Person</th>
<th>PT</th>
<th>Tiriyó</th>
<th>Akuriyó</th>
<th>Karihona</th>
</tr>
</thead>
<tbody>
<tr>
<td>3AO, _C</td>
<td>*ni-</td>
<td>ni-</td>
<td>ni-</td>
<td>ni-</td>
</tr>
<tr>
<td>3AO, _V</td>
<td>*n-</td>
<td>n-</td>
<td>n-</td>
<td>n-</td>
</tr>
<tr>
<td>3AO, Distant Past</td>
<td>*kin-</td>
<td>kin-</td>
<td>kin-</td>
<td></td>
</tr>
<tr>
<td>3OV</td>
<td>*∅-</td>
<td>∅-</td>
<td>∅-</td>
<td>∅-</td>
</tr>
</tbody>
</table>

The reconstruction of the *n- and *∅- allomorphs is quite automatic; the prefix-final vowel *i in *ni- is reconstructed for the same reason as the *i in *mi- ‘2A’ discussed above. Only one example of the *kin- prefix was found in the Akuriyó corpus (kin-no ‘s/he shot long ago’, from the verb stem wo ‘to shoot’), and no example was found in the Karihona corpus (in which there are only a couple of Distant Past verb forms); the factual basis for its reconstruction is thus weaker than that of the other prefixes.  

6.5.1.2. Intransitive verbs. Two sets of person-marking prefixes are relevant to the conjugation of intransitive verbs in Taranoan languages. In Tiriyó and Akuriyó, these two sets define two conjugation classes of intransitive verbs; in Karihona, however, there is

---

... from being definitely settled. The problem of prefix-final vowels is a complicated one (which involves an apparent tendency for becoming part of the verb stem), which deserves further comparative study at the family level. It may turn out that prefix-final vowels are related to the source of the Cariban ðe ablaut, which may eventually reconstruct to an old independent morpheme, perhaps a third-person object marker. Especially as concerns its meaning, there are some dangers. In Karinya, a Cariban language that may be closely related to Taranoan, the cognate kin- prefix is not automatically associated with Distant Past; rather, it is used in the Present tense with an evidential value, indicating a high level of certainty, but without visual evidence, as opposed to a lower level indicated by n- alone; e.g. kin-e:ne-jan ‘s/he sees him/her’, from ene ‘see’, but n-uku:-san ‘does he know it?’ from uku:ti ‘to know’ (Hoff 1986). It is not impossible that the Karihona cognate might have been similar in usage. However, notice that, although there are several examples, in both the Karihona and Akuriyó corpora, of high-certainty third-person verb forms, kin- did not occur on any of them, while its Karinya cognate shows up much more frequently than the simple n- form.
only one intransitive conjugation (with a few irregular cases). The first set is the same as the O set reconstructed in 6.2, while the second set is almost identical to the A set reconstructed for transitive verbs (differing only in the allomorphs of the first-person marker); both sets include *n(i)- as a third-person marker. The following Tiriyo paradigms illustrate the O and A conjugations (the verb forms are in the -Ø Recent Past):

(19) O conjugation: Tiri *emamina* ‘to play’ A conjugation: Tiri *ei* ‘COP’

<table>
<thead>
<tr>
<th></th>
<th>j-emamina</th>
<th>‘I have played’</th>
<th>w-ei</th>
<th>‘I have been’</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td>‘you have played’</td>
<td>m-ei</td>
<td>‘you have been’</td>
</tr>
<tr>
<td>2</td>
<td>k-emamina</td>
<td>‘we have played’</td>
<td>k-ei</td>
<td>‘we have been’</td>
</tr>
<tr>
<td>1+2</td>
<td>n-emamina</td>
<td>‘s/he/it has played’</td>
<td>n-ei</td>
<td>‘s/he/it has been’</td>
</tr>
</tbody>
</table>

The same two groups are found in Akuriyo; in all attested cases, the cognate stems had the same conjugation in both languages. The following Akuriyo paradigms illustrate the conjugation classes.

(20) O conjugation: Ak2  A conjugation: Ak2 *e:pi* ‘to come’

<table>
<thead>
<tr>
<th></th>
<th>j-entota</th>
<th>‘I have woken up’</th>
<th>Ø-e:pi</th>
<th>‘I have come’</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td>‘you have woken up’</td>
<td>m-e:pi</td>
<td>‘you have come’</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td>‘we have woken up’</td>
<td>k-e:pi</td>
<td>‘we have come’</td>
</tr>
<tr>
<td>1+2</td>
<td>k-entota</td>
<td>‘s/he has woken up’</td>
<td>n-e:pi</td>
<td>‘s/he/it has come’</td>
</tr>
<tr>
<td>3</td>
<td>n-entota</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In Karihona, however, all intransitive verbs are apparently conjugated with a hybrid set, in which the 2 and 1+2 prefixes (*mi- and kisi-*) correspond to the Tiriyo-Akuriyo A conjugation form, whereas the 1 prefix (*ji-*) appears to be cognate to the Tiriyo-Akuriyo O conjugation form (cf. 6.2 for details on Karihona *ji- and voicing*); the 3 prefix *n(i)- could come from either conjugation. The following Karihona paradigm
illustrates this pattern (the Tiriyó O-conjugation cognate paradigm is given for comparison):

(21)  Intransitive conjugation: Khî tuda ‘to arrive’  Tir tunta ‘to arrive’

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>ji-tuda</td>
<td>'I have arrived'</td>
<td>ji-tunta</td>
<td>3</td>
</tr>
<tr>
<td>mi-tuda</td>
<td>'you have arrived'</td>
<td>2-tunta</td>
<td></td>
</tr>
<tr>
<td>kisi-tuda</td>
<td>'we have arrived'</td>
<td>ki-tunta</td>
<td></td>
</tr>
<tr>
<td>ni-tuda</td>
<td>'s/he/it has arrived'</td>
<td>ni-tunta</td>
<td></td>
</tr>
</tbody>
</table>

Class membership in Akuriyó and Tiriyó is relatively unpredictable. There is nothing in the form of the Tiriyó stems *emamina* ‘to play’ and *ei* ‘COP’, or of the Akuriyó stems *ento:ta* ‘to wake up’ and *e:pi* ‘to come’, that correlates with their belonging to different classes. This unpredictability is hard to explain as a natural development of a one-conjugation system. Considering also that two-conjugation systems with roughly the same characteristics found in Tiriyó and Akuriyó are very frequent outside of Taranoan (e.g. Wayana, Kaxuyana, De’kwana, Karinya), it will be reconstructed to Proto-Taranoan.

As shown in Fig. 5 below, the Karihona development has apparently involved the extension of the 2 and 1+2 prefixes from the A conjugation, and of the 1 prefix from the O conjugation, to all intransitive verbs (cf. Gildea 1998 [Sec. 5.2.3] for a briefer exposition of this ‘paradigm merge’). The 3 prefix *n(i)*- was already the same in both conjugations. (The allomorphs are presented in the order: consonant-initial stems / vowel-initial stems.)

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26 A large number of cases, however, are predictable; most of the A conjugation verbs are morphologically reflexive, very often still synchronically derivable from a transitive source. However, the existence of a reasonable number of unpredictable cases, attested in the three languages and consistently belonging to the same conjugation in Akuriyó and Tiriyó, still seems enough to be an argument in favor of reconstructing the two conjugations.
The merging of the O and A intransitive conjugations in Karihona.

<table>
<thead>
<tr>
<th>Proto-Taranoan</th>
<th>Karihona</th>
</tr>
</thead>
<tbody>
<tr>
<td>*V-/<em>j-</em></td>
<td>Æ (+voice)- / ji- (cf. the end of 6.2)</td>
</tr>
<tr>
<td>*æ-/<em>aj-</em></td>
<td>m-/mi-</td>
</tr>
<tr>
<td>O set</td>
<td>kise, kisi- / kis-</td>
</tr>
<tr>
<td></td>
<td>n-/ni-</td>
</tr>
<tr>
<td>*ki-/*k(æ,o)-</td>
<td></td>
</tr>
<tr>
<td>*ni-/*n-</td>
<td></td>
</tr>
<tr>
<td>*i-/*Ø-</td>
<td></td>
</tr>
<tr>
<td>*mi-/*m-</td>
<td></td>
</tr>
<tr>
<td>A set</td>
<td></td>
</tr>
<tr>
<td>*kici-/*kis-, *kit-</td>
<td></td>
</tr>
<tr>
<td>*ni-/*n-</td>
<td></td>
</tr>
</tbody>
</table>

The prefixes themselves are the same as the O and A sets; their reconstruction is thus assumed to be the same as in 6.2 and 6.5.1.1 above. The only difference is in the A first-person forms; their allomorphs in Tiriyó and Akuriyó are compared below.

Table 24.
A-conjugation first-person markers
The Karihona prefixes in parentheses are not cognate

<table>
<thead>
<tr>
<th>First-person Prefix</th>
<th>PT</th>
<th>Tiriyó</th>
<th>Akuriyó</th>
<th>Karihona</th>
</tr>
</thead>
<tbody>
<tr>
<td>With æ-initial stems</td>
<td>*t-</td>
<td>t-</td>
<td>k-; t-</td>
<td>(j-)</td>
</tr>
<tr>
<td>With e-initial stems</td>
<td>*c-</td>
<td>s-</td>
<td>c-</td>
<td>(j-)</td>
</tr>
<tr>
<td>Others (irregularities)</td>
<td>*w-, *wi-</td>
<td>w-, wi-</td>
<td>w-, wi-, æ-, Ø-</td>
<td>wi-, (j-)</td>
</tr>
</tbody>
</table>

With e-initial stems, Tiriyó and Akuriyó have the same prefix (e.g. Tir s-erama ‘I returned’, Ak2 c-etaka ‘I ate until satiety’), reconstructible as PT *c-. There is no easy explanation, however, for Akuriyó k- corresponding to Tiriyó t- on æ-initial stems (e.g. Tir t-æniki, Ak2 k-æniki, both meaning ‘I have slept’). The fact that several cases of first-person t- in Akuriyó did actually occur may be interpreted as indicating that k- is
more recent; however, given the sociolinguistic situation of Akuriyó speakers, it is just as likely that these cases resulted from Tiyó influence. One could speculate about a Proto-Taranoan prefix *kVRT-, perhaps *ktū, which developed irregularly into Tiyó t- and Akuriyó k-. However, a more interesting alternative for the synchronic pattern of Tiyó comes from a closer consideration the patterns in Table 24 above, in connection with Gildea’s 1998 reconstruction of Proto-Cariban person markers.

The distribution of Tiyó t- and s-, with e- and o-initial stems respectively, is suggestive of palatalization. One is tempted to reconstruct a (Pre-Proto-Taranoan) prefix *t- which would have been palatalized by a following e, generating Proto-Taranoan *t- and *c-. This agrees well with the absence of reconstructible *ti and *te sequences in Taranoan (cf. 4.1). A similar reasoning would be valid for the 1+2 A-marking prefixes *kūt- and *kūc- (cf. previous section), which have the same distribution as *t- and *c-. 27

In his Table 5.2, Gildea reconstructs to Proto-Cariban the prefixes *c- ‘1A’ and *kic- ‘1+2A’ on transitive verbs. The *c in these prefixes represents Girard’s 1971:72-75 Proto-Cariban correspondence that has synchronic reflexes as t, c, f and s in the modern languages. Gildea chose it because of the existence of cognate prefixes from different languages with any of these sounds (often more than one occurring in the same language). This choice has the consequence that reflexes with t should be have arisen from Girard’s 1971:74 rules for *c > t. However, the list of languages for which Girard’s *c becomes t is different from the list of languages in which Gildea found the t- or kūt- allomorphs.

27 This distributional similarity suggests speculations about a possible relationship between *kūt-/*kic- and *t-/*c-. Maybe *t-/*c- were not originally first-person, but first-person dual markers. They might have extended to first person via a mechanism similar to the one proposed in Gildea 1998 (Sec. 5.2.3) for the extension of the Parukotoan prefix k- ‘1+2’ to first person in the O conjugation. The 1+2 O set prefix *kî- might then have been added (forming *kît-/*kîc-) to keep them distinct from the new first-person forms. If such a process ever took place, it clearly was long before Proto-Taranoan.
Girard's list includes only Southern Cariban languages (Arara, Pariri, Apiaká and Nahukwa), while Gildea's has only Northern languages (Tamanaco, Panare, Chayma with \( t \)-, Tiriyó, Akuriyó, Kaxuyana, Wayana with \( k\dot{u}t \)- or \( kut \)-; Karihona \( k\dot{u}t \)- appears to be a misinterpretation of Robayo's claims in Kh1). Girard's rules for the partial merging of Proto-Cariban \(*t\) with \(*c\) via palatalization (1971:74-75) account better for the distribution, and affect a set of languages similar to the one in which Gildea found \( s-/c\)- or \( k\dot{u}s-/l\dot{k}i\dot{c}\)- (including e.g. Tamanaco, Chayma and Wayana). In view of that, a reconstruction of \(*t\)- and \(*k\dot{u}t\)- to Proto-Cariban, with Girard's palatalization rules generating the \(*c\)- and \(*k\dot{i}c\)- allomorphs, seems more likely to be correct.

Girard describes \(*t\) as undergoing palatalization in front of \( i \). The absence of \(*te\) sequences in Proto-Taranoan (already noted in 4.1) seems to indicate that palatalization also happened in front of \( e \). In this case, if \(*t\)- is reconstructed as Proto-Cariban 1A prefix instead of \(*c\)-, then palatalization would generate \(*t\)- and \(*c\)- allomorphs with the same distribution as the Tiriyó A-conjugation prefixes; this suggests a diachronic connection between them. Two possible hypotheses come to mind: (a) the original situation was already like that, with the same \(*t-/c\)- prefix occurring both on transitive and A-conjugation intransitive verbs, and (b) there was extension of the \(*t-/c\)- prefix from transitive to A-conjugation intransitive verbs. Given that Tiriyó is the only language for which a \( t-/s\)- first-person prefix occurs on A-conjugation intransitive verbs (cf. Gildea 1998, Table 5.6), (a) looks very improbable. There must have been extension of the transitive verb prefix to the A-conjugation intransitive verbs.

In this case, what was the original first-person marker on intransitive verbs of the A conjugation in Proto-Taranoan? Very little evidence remains. Karihona lost the original
prefix when the two conjugations merged; only the O-conjugation prefix survived. Tiriyó and Akuriyó innovated by extending the transitive prefix *t-/*c- to the A conjugation. The Akuriyó c- prefix, which has the same distribution as Tiriyó s-, looks like a cognate; this would allow the effects of the *t-/*c- extension to be reconstructed to Proto-Tiriyó-Akuriyó. Thus, the modern first-person k- must have replaced an earlier *t- (which still occurs sporadically). In his table 5.6, Gildea 1998 reconstructs *w- as the Proto-Cariban first-person marker on A-conjugation intransitives. Given the overwhelming number of w-’s in his cognate set, this conclusion seems quite solid. The existence of a small group of irregular A-conjugation verbs that do take a first-person w(i)- marker in Taranoan languages (cf. their reconstruction at the end of the present section) may constitute a remnant of this possible earlier pattern: it is precisely in irregular conjugations that one may expect to find retentions of older systems. This intransitive first-person *w- can be seen as the source of another Tiriyó extension (not shared by either Akuriyó or Karihona), this time into the transitive conjugation, generating the Tiriyó 1A prefix w(i)- (cf. Table 22). However, it does not seem possible at present to decide whether Proto-Taranoan still

---

28 It is difficult to offer a good explanation for the origin of this k-. The only possible source that comes to mind is the first-person dual object prefix k- (1+2O = 12AO). Although an extension from first person dual inclusive to first person singular is not implausible, and has in fact been claimed by Gildea 1998 (Sec. 5.2.3) to have happened in the Parukotoan sub-branch, that case at least was more homogeneous: the 1+2O prefix spread from first person dual to first person singular within the same conjugation paradigm, the O conjugation (cf. Gildea’s 1998 [Sec 5.2.3] claim that the Parukotoan case conforms to Harris’ 1990 Complementarity Principle, which restricts extension to cases in which the donor and the recipient can be combined into some consistent category). In the Akuriyó case, the spreading would have to go from the O-conjugation first person dual to the A-conjugation first person singular, and only to s-initial stems, not e-initial ones. It is not clear at present how this process could involve a ‘consistent category’. Notice, en passant, that there is one irregular Tiriyó verb which takes a first-person k-: oeka / weka ‘to defecate’, which in the first person is k-oeka-e ‘I am defecating’. The verb was apparently w-initial (the o only occurs in 1, 2, and 3 forms; 1+2 is ki-weka-e ‘we are defecating’; nominalizations are also based on weka); the irregularity in stem allomorphy may be connected to the unexpected first-person prefix, but it is hard to see how. An explanation for this irregularity is still being sought.
retained the Proto-Cariban system intact, or whether the prefix shifts had happened beforehand. Fig. 6 illustrates this hypothesis:

**Figure 6**

The evolution of first-person markers from Proto-Cariban to the Taranoan languages

<table>
<thead>
<tr>
<th></th>
<th>Proto-Cariban</th>
<th>Proto-Taranoan</th>
<th>Tiriyó</th>
<th>Akuriyó</th>
<th>Karihona</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Tr. A-marking</strong></td>
<td>*t-/*ti-</td>
<td></td>
<td>w-/wi-</td>
<td>Ø-/i-</td>
<td>Ø-/i-</td>
</tr>
<tr>
<td><strong>Intr. A-marking</strong></td>
<td>*w-/wi-</td>
<td></td>
<td>t-/s-/w(i)-</td>
<td>k-/t-/c-/w-</td>
<td>j-/Ø[voice]-/w(i)-</td>
</tr>
<tr>
<td><strong>Tr./Intr. O-marking</strong></td>
<td>*uj-/*u-</td>
<td></td>
<td>j-/j'i-</td>
<td>j-/Ø:-</td>
<td>j-/Ø[voice]-</td>
</tr>
<tr>
<td><strong>(1+20?)</strong></td>
<td>*k-</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

As can be seen, every Taranoan language experienced some major extensions. Tiriyó is the most drastic case: the transitive and intransitive A-marking prefixes were simply swapped. This could not have happened as two simple extensions, one after the other: the first prefix to extend would have completely obliterated the other, thus making the second extension impossible. One could argue that *i(i)- did not extend completely, since some cases of *w(i)- have remained; they might have been the source for the extension into the transitive verbs. However, it is hard to see a pattern that was restricted to three or four intransitive verbs as spreading to the entire class of transitive verbs. It makes more sense to suppose that the two extensions were ongoing simultaneously for at least part of the time between Proto-Carib and the modern Taranoan languages. It is
difficult to guess whether this simultaneous spreading was a case of lexical diffusion (implying extensions from lexical item to lexical item, possibly generating a rather chaotic scenario in which the first-person prefix was not predictable from the form of the stem) or whether it went along more orderly lines, with different prefixes extending to different subclasses of stems (conditioned morphologically, phonologically, or semantically). The real process probably had aspects of both. Whatever the details of the process of simultaneous spreading may have been, it must be admitted that the motivation for its occurrence still remain mysterious.

For the sake of completeness, let us now turn our attention to the small number of irregular verbs for which a first-person prefix *w(ː)‐ can be reconstructed. This category includes a small number of stems, among which ‘to go’, ‘to come’, ‘to say’, ‘to go down’, ‘to defecate’, and the copula. These are basically the verbs that are not synchronically or diachronically detransitivized, yet belong to the A conjugation. Let us first consider the two consonant-initial ones, ‘to go’ and ‘to say’:

| Table 25. |  |
|-----------|
| Conjugation of the verb *təmə*³⁹ ‘to go’ |  |
| | Person | PT | Tiriyó | Akuriyó | Karihona |
| 1 | (‘I have gone’) | *wi-təmə | wi-tə[mi] | ə-təmi | wi-təmə |
| 2 | (‘you have gone’) | *mi-təmə | mi-tə[mi] | mi-təmi | mi-təmə |
| 1+2 | (‘we have gone’) | *ki-təmə | ki-tə[mi] | ki-təmi |  |
| 3 | (‘s/he/it has gone’) | *ni-təmə | ni-tə[mi] | ni-təmi |  

³⁹ The syllable reduction pattern associated with the last syllable of *təfmal* and its reflexes in the modern languages is different from the usual one, and may reflect an evolution different from the one postulated in 4.2.3 and in Gildea 1995. This matter will not be discussed here.
The Karihona third-person form *dama can be explained if an intermediate stage in which the third-person prefix lost its vowel is assumed: *ni-*ama > *ntama > dama, where *nt > d is a regular change (cf. 4.2.1). The first-person forms are strange; Akuriyó ə- is unique to this verb, as Karihona wí- also appears to be (but notice that no first-person forms of ka ‘say’ are attested for Karihona). Reconstructing *wí- and assuming an irregular change *wí- > ə in Akuriyó does not seem too far-fetched. The reconstruction of the stem-final vowel as ə rather than i is supported by the existence of related forms ending in o rather than i. Since Proto-Carib *o appears to have become ə in some languages under certain (not yet well understood) circumstances, forms like Kaxuyana tomo ‘to go’ agree with Proto-Taranoan təma. The Tiriyó and Akuriyó final i can be considered a reduced form (cf. the notion of ‘reduction-to-i’ in 4.3).

<table>
<thead>
<tr>
<th>Person</th>
<th>PT</th>
<th>Tiriyó</th>
<th>Akuriyó</th>
<th>Karihona</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>*wi-ka</td>
<td>wi-ka</td>
<td>wi-ka</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>*mi-ka</td>
<td>mi-ka</td>
<td>mi-ka</td>
<td></td>
</tr>
<tr>
<td>1+2</td>
<td>kih-ka</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>*ni-ka</td>
<td>n-kan</td>
<td>ni-ka</td>
<td></td>
</tr>
</tbody>
</table>

Unfortunately, the conjugation of *ka is not attested in Karihona; the only form found in the corpus is i-ka-ri (‘his/her saying’), a nominalization. The 1+2 form is also unattested in the Akuriyó corpus. Only the forms found in more than one language were reconstructed; the only change was the Tiriyó third-person form, which is probably the
Present form (*nkən 's/he is saying') that was extended into Immediate Past, presumably replacing an earlier *nka.

Table 27.
Conjugation of the verb *ʔe[pi]'to come'

<table>
<thead>
<tr>
<th>Person</th>
<th>PT</th>
<th>Tiriyó</th>
<th>Akuriyó</th>
<th>Karihona</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 ('I have come')</td>
<td>*w-ʔepi</td>
<td>w-ʔepi</td>
<td>Ø-e:pi</td>
<td></td>
</tr>
<tr>
<td>2 ('you have come')</td>
<td>*mən-e:pi</td>
<td>mən-e:pi</td>
<td>m-e:pi</td>
<td>m-ehi</td>
</tr>
<tr>
<td>1+2 ('we have come')</td>
<td>*kic-e:pi</td>
<td>k-e:pi</td>
<td>kəʔ-e:pi, k-e:pi</td>
<td></td>
</tr>
<tr>
<td>3 ('s/he/it has come')</td>
<td>*n-e:pi</td>
<td>n-e:pi</td>
<td>n-e:pi</td>
<td>n-ehi</td>
</tr>
</tbody>
</table>

For this verb, the Tiriyó forms are rather surprising. Since the forms are all idiosyncratic, and without any obvious source, it seems best to reconstruct them in some way and assume that Karihona and Akuriyo regularized this verb independently. Notice that the vowel length in Akuriyó is probably not part of the person-marking morphology (since it occurs in all persons instead of only in the first person); rather, it is probably the reflex of the reconstructed stem-initial irregularities. Furthermore, non-Taranoan cognates also have unexpected details: e.g. Panare ʔpi has ə, not e, as its first vowel, and Apalaí has oepi as the stem. This points to a Proto-Taranoan diphthong *ʔe in the stem-initial syllable, which would have been monophthongized in the forms that have a long vowel; in Taranoan, that would include all non-first persons. The vowel length in all forms in Akuriyó suggests that at least this remnant of the original diphthong must be reconstructed to Proto-Taranoan. The first person is reconstructed as a *w- marker because this agrees with the other 'special cases' considered in this section. The loss of this marker in Akuriyó
might perhaps be seen as a *wæ > e evolution (cf. a similar *wi > a case in the first-
person form of ‘to go’, in Table 26).

The second-person form is very irregular in Tiriyó. It is not clear whether this
irregularity should be ascribed to the prefix (mən-əpi) or to the stem (m-ənepi). The
longer 1+2 form in Akuriyó, if analyzed as k-əʔepi, would also suggest that the stem was
trisyllabic; however, since the ʔn correspondence would be really unique, and a prefix
form kəʔ- does exist in the A conjugation, it seems better to analyze it as kəʔ-e:pi. It is
also true that another irregular stem has what looks like a prefix man-, at least historically:
the second-person copula (Tir manaæ, Ak2 mana, Kh1 manai; cf. below). However that
may be, the second-person irregularity apparently has to be reconstructed to Proto-
Taranoan; the segmentation is given as *mən-e:pi only to keep the stem maximally
consistent. The 1+2 form is a regular development of PT *kic-: lengthening in Tiriyó, and
a glottal stop in Akuriyó.

Table 28.
Conjugation of the irregular Present / Certainty forms of *a ‘COP’

<table>
<thead>
<tr>
<th>Person</th>
<th>PT</th>
<th>Tiriyó</th>
<th>Akuriyó</th>
<th>Karihona</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>*wae</td>
<td>wae</td>
<td>aʔe</td>
<td>wae</td>
</tr>
<tr>
<td>2</td>
<td>*manaæ</td>
<td>manae</td>
<td>manaʔe</td>
<td>manai</td>
</tr>
<tr>
<td>3</td>
<td>*na(e/i), *ana (?)</td>
<td>nai</td>
<td>naʔe, ana</td>
<td>nai</td>
</tr>
<tr>
<td>1+2</td>
<td>*kitaæ</td>
<td>kitaæ</td>
<td>kitaʔe</td>
<td>kitaæ</td>
</tr>
</tbody>
</table>

The glottal stop in Akuriyó is probably the same one that occurs in the ‘Certainty’
evidential marker, which is part of the above copular forms; cf. details in the discussion
following Table 30, in the next section. There seem to be two third-person forms in
Akuriyó; although the consultants were not consistent in their usage, this does correlate with the existence of two or three third-person forms, with different evidential values, in non-Taranoan languages (cf. Wayana nai and man, Karinya na, nan and man). The initial a, however, is rather unexpected. A form like *na would have been closer to non-Taranoan cognates (Karinya na); however, since there did not seem to be any source for this a, the only option appears to be its reconstruction.\footnote{Two other Tiriyó verbs present first-person irregularities worth mentioning: ōta ‘to go down’, which takes a p- (p-ōta ‘I went down’), and oeka / weka ‘to defecate’, which takes a k- (k-oeka-e ‘I am defecating’). The k- in k-oeka-e may be related to the Akuriyó first-person k-; the p- in p-ōta seems to have been part of the stem at some point (it still occurs in nominalized forms: pōta-to ‘going down’. Non-Taranoan languages indicate that the h may result from the reduction of a pV syllable (cf. Wayana ipto ‘to go down’); this fact may be related to this possible old stem-initial p in (Pre-)Tiriyó, but its development is not clear.}

6.5.2. Tense-Aspect-Modality and Number-E evidentiality Morphology. TAM markers fall into two positional categories with respect to the number markers; cf. Fig. 4, at the beginning of 6.5, repeated below as Fig. 7 for convenience. Table 29 compares the morphemes occurring in the TAM slots individually. Cf. Table 42 (7.1) for the reconstructed suffix sequences which they can form.

<table>
<thead>
<tr>
<th>person</th>
<th>VERB STEM</th>
<th>TAM-1</th>
<th>number</th>
<th>TAM-2 / evidentiality</th>
</tr>
</thead>
<tbody>
<tr>
<td>1, 2, 1+2, 3</td>
<td>Present, Future</td>
<td>Immediate Past, Distant Past, Imperative</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\footnote{Two other Tiriyó verbs present first-person irregularities worth mentioning: ōta ‘to go down’, which takes a p- (p-ōta ‘I went down’), and oeka / weka ‘to defecate’, which takes a k- (k-oeka-e ‘I am defecating’). The k- in k-oeka-e may be related to the Akuriyó first-person k-; the p- in p-ōta seems to have been part of the stem at some point (it still occurs in nominalized forms: pōta-to ‘going down’. Non-Taranoan languages indicate that the h may result from the reduction of a pV syllable (cf. Wayana ipto ‘to go down’); this fact may be related to this possible old stem-initial p in (Pre-)Tiriyó, but its development is not clear.}
Table 29.
Suffixes marking Tense-Aspect-Modality

<table>
<thead>
<tr>
<th>Suffix</th>
<th>PT</th>
<th>Tiroyo</th>
<th>Akuriyo</th>
<th>Karihona</th>
</tr>
</thead>
<tbody>
<tr>
<td>Present (nasal and $pV$-reducing stems)</td>
<td>*-ja</td>
<td>-ja</td>
<td>-ja</td>
<td>-ja</td>
</tr>
<tr>
<td>Present (other reducing stems)</td>
<td>*-ja</td>
<td>-ja</td>
<td>-ca</td>
<td>-ja</td>
</tr>
<tr>
<td>Present (non-reducing stems)</td>
<td>*-(;</td>
<td>-(;</td>
<td>-(;</td>
<td>-Ø</td>
</tr>
<tr>
<td>Future</td>
<td>*-ta</td>
<td>-ta</td>
<td>-ta</td>
<td>-ta</td>
</tr>
<tr>
<td>Immediate Past (non-collective)</td>
<td>*-Ø</td>
<td>-Ø</td>
<td>-Ø</td>
<td>-Ø</td>
</tr>
<tr>
<td>Immediate Past (collective)</td>
<td>*-wi</td>
<td>-Ø</td>
<td>-u</td>
<td>-wi</td>
</tr>
<tr>
<td>Distant Past</td>
<td>*-ne</td>
<td>-ne</td>
<td>-ne</td>
<td>-ne</td>
</tr>
</tbody>
</table>

The Future, Distant Past, and Immediate Past (non-collective) suffixes can be reconstructed immediately as *-ta, *-ne and *-Ø; they were conserved without changes in all languages. Here are some examples (the O in the glosses stands for any third-person object):

(22)  
<table>
<thead>
<tr>
<th>Tiroyo</th>
<th>Akuriyo (Ak2)</th>
<th>Karihona (Kh1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>m-ene-ta-e</td>
<td>kit-acapakoma-ta-Øe</td>
<td>Ø-ekarama-ta-e</td>
</tr>
<tr>
<td>2A-see-Fut-Evid</td>
<td>1+2A-be.in.need-Fut-Evid</td>
<td>1A-give-Fut-Evid</td>
</tr>
<tr>
<td>‘you will see O’</td>
<td>‘the two of us will be in need’</td>
<td>‘I will give O’</td>
</tr>
<tr>
<td>w-eta-ne</td>
<td>m-e:pi-ne</td>
<td>Ø-akama-ne</td>
</tr>
<tr>
<td>1A-hear-D.Pst</td>
<td>2-come-D.Pst</td>
<td>1A-arrange-D.Pst</td>
</tr>
<tr>
<td>‘I heard O’</td>
<td>‘you came’</td>
<td>‘I arranged O’</td>
</tr>
<tr>
<td>ni-ponofot-Ø</td>
<td>ni-pananipi-Ø</td>
<td>n-onami-Ø</td>
</tr>
<tr>
<td>3AO-tell-Im.Pst</td>
<td>3A-hear-Im.Pst</td>
<td>3AO-bury-Im.Pst</td>
</tr>
<tr>
<td>‘s/he has said O’</td>
<td>‘s/he has heard O’</td>
<td>‘s/he has buried O’</td>
</tr>
</tbody>
</table>
The Present has two allomorphs: a syllabic one, which occurs with the reduced form of reducing stems, and a non-syllabic one, realized as vowel length (which goes unnoticed if the last syllable of the stem is affected by rhythmic stress [cf. Chap. 3 for the stress pattern]). The non-syllabic allomorph reconstructs without problems. As for the syllabic allomorph, both Tiriityó and Karihona have only -ja with reducing syllables, but Akuriyó has -ja and -ca. Akuriyó speakers were not entirely consistent in their use of these two allomorphs. Both -ja and -ca were accepted with stems in which the reducing syllable was pV (e.g. pananiapi ‘to hear’ ⇒ i-pananiapi-ja- ?e, i-panani-ca- ?e ‘I hear / I am hearing’), though not always by the same speakers;\textsuperscript{31} -ja also occurred with NV-reducing stems (e.g. ko(:mam) ‘to fall (night)’ ⇒ ni-ko(:)man-ja-n ‘night is falling, it is getting dark’). For stems with other reducing syllables, only -ca was accepted (e.g. a:niki ‘to sleep’ ⇒ k-a:ni:-ca- ?e ‘I am sleeping’; a form like *k-a:nik-ja- ?e was refused).\textsuperscript{32} This distribution cannot be attributed to *c-loss: there would be a glottal stop in Akuriyó, and the *c would have been conserved in Karihona. It seems more reasonable to ascribe it to the ‘hardening’ of j to c. In most non-Taranoan languages, the only syllabic allomorph has the form -ja; however, in one language, Karinya (which appears to be closer to Taranoan than to other sub-branches of Cariban), the allomorph found with stems that have an obstruent-vowel reducing syllable is -sa (Hoff 1968:169). The two possibilities are that the ‘hardening’ of j to c had already occurred before Proto-Taranoan (in which case the *c

\textsuperscript{31} One speaker usually (but not always) used the -ja form spontaneously, and accepted and repeated the -ca form; another speaker only used the -ca form, but acknowledged the -ja form as correct. A third speaker would sometimes insist that only one of the two was correct, and then contradict himself by using the other one a few moments later.

\textsuperscript{32} Notice, en passant, that it is quite unexpected to find one kind of obstruent-vowel reducing syllable, pV, being treated differently from the others. The occurrence of the allomorph -ja, and the survival of the p, suggest that not all obstruent-vowel syllables reduced at the same time; apparently, kV and rV syllables went first. No obvious phonological or phonetic motivations were found for this.
should have been preserved in Karihona), or that the ‘hardening’ happened independently twice, in Akuriyó and Karinya. Since the latter seems slightly more plausible, it is preferred here; however, this is not a closed case.\textsuperscript{33}

The Immediate Past (collective) is in the TAM-2 position class (see Table 29). It occurs as -\textit{wi} in Karihona (e.g. \textit{abonanipí} ‘to slow down O’ > \textit{m-abonani-tə-wi} ‘you all have slowed down O’), -\textit{u} in Akuriyó (e.g. \textit{arə} ‘to take away O’ > \textit{kii-arə-tə-u} ‘we all have taken away O’), and -∅ in Tiriyó (e.g. \textit{ene} ‘to see O’ > \textit{m-ene-ti} ‘you all have seen O’; see below for -\textit{ti}: instead of -tə as the collective marker). A cross-Cariban look reveals that -\textit{wi} appears to be the most conservative form (cf. Kaxuyana, where -\textit{wi} occurs even with non-collective forms; e.g. \textit{ene} ‘to see’ > \textit{w-ene-wi} ‘I have seen O’); Gildea 1998 (Table 5.11) reconstructs *-\textit{wi} to Proto-Cariban. It apparently reduced to nothing in the non-collective in Taranoan, and to -\textit{u} in the collective in Akuriyó (remaining unchanged in the Karihona collective form). The Karihona pattern is thus reconstructed to Proto-Taranoan.

The Number category has two possibilities: collective and non-collective (cf. 6.1.1). On transitive verbs, the collective markers are sensitive to the two-level person hierarchy mentioned in 6.5.1.1 (1/2 > 3): if a non-third-person (SAP) is involved, either as an object or as a subject, the collective suffix must refer to it. Thus, in a form such as Tiriyó \textit{m-ene-ti} ‘you all have seen it’, from \textit{ene} ‘see’, the collective -\textit{ti[f:]j} refers to the second-person subject (\textit{m- 2A’}), whereas in a form such as \textit{ə-ene-ti} ‘s/he saw you all’, it

\textsuperscript{33} Not all languages in which there is ‘hardening’ can be argued to belong to the same genetic subgroup; cf. Panare, which seems to be very distant from Taranoan languages and from Karinya, but in which there are examples such as \textit{t-epət-tah} ⇒ \textit{te-pəcəh} ‘I washed my hands’ (Gildea 1995:89). It would be interesting to check how many kinds of ‘hardening’ there are, what their properties are, and if any of them has classificatory value.
refers to the second-person object (ə ‘2O’). If both the subject and the object are third persons, the collective suffix refers to the object (e.g. Tiriýó n-ene-ti ‘s/he has seen them all’, with n- ‘3AO’). If the speaker wishes to collectivize the other participant (i.e. the subject in a 3AO situation, or the third person when a SAP is involved), an independent particle must be used (e.g. Tiriýó ə-ene to ‘they all have seen you’, n-ene to ‘they all have seen him/her/it’). On an intransitive verb, -ti is used with non-third persons, and to with third persons: mi-ta-ti ‘you all have gone’ (from ta[mi] ‘go’), but ni-tan to ‘they all have gone’. Cf. Gildea 1998 (Sec. 2.1.1) for a similar number system in non-Taranoan Cariban languages.

The Evidential category has two possibilities, here labeled ‘Certainty’ and ‘Doubt’ (probably corresponding to Hoff’s 1986 ‘Extraspective’ and ‘Introspective’ in Karinya, respectively; the meaning of the evidential markers in Taranoan languages has not yet been as well researched as in Karinya). The ‘Doubt’ suffix is used in questions, and co-occurs with particles meaning ‘maybe’, ‘possibly’, and, in general, when the speaker is not sure about the veracity of what s/he is saying; otherwise, the ‘Certainty’ suffix is used. Compare the Tiriýó kure manan ‘you are good (Doubt)’, which suggests almost immediately a question, with kure manae ‘you are good (Certainty)’, which is a claim about the ‘niceness’ of the hearer (and can be used, e.g., as a ‘thank you’ expression).

TAM-2 suffixes (i.e. those that follow the number markers) do not co-occur with evidential markers (which is the reason why Hoff 1986 wants to analyze them as including evidential value); only TAM-1 suffixes (Present and Future) do. Evidential markers thus immediately follow the number markers, which has led to a certain degree of fusion. For
this reason, it seems better to compare Number-Evidential sequences rather than Number and Evidential markers separately; this is done in Table 30.

<table>
<thead>
<tr>
<th>Suffix</th>
<th>PT</th>
<th>Tiriýó</th>
<th>Akuriyó</th>
<th>Karihona</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-Collective, Certainty (Present)</td>
<td>*-ø-e</td>
<td>-ø-e</td>
<td>-ø-*e</td>
<td>-ø-e</td>
</tr>
<tr>
<td>Non-Collective, Doubt (Present)</td>
<td>*-ø-øa</td>
<td>-ø-ø[a]</td>
<td>-ø-øa</td>
<td>-ø-øa</td>
</tr>
<tr>
<td>Collective, Certainty (Present)</td>
<td>*-ø-a</td>
<td>-ø[i:]</td>
<td>-ø-a</td>
<td>-ø-a</td>
</tr>
<tr>
<td>Collective, Doubt (Present)</td>
<td>*-ø[a]</td>
<td>-ø[i:]</td>
<td>-ø-a</td>
<td>-ø-a</td>
</tr>
<tr>
<td>Non-Collective, Certainty (Future)</td>
<td>*-ø-øa</td>
<td>-ø-ø</td>
<td>-ø-*e</td>
<td>-ø-e</td>
</tr>
<tr>
<td>Non-Collective, Doubt (Future)</td>
<td>*-ø-øa</td>
<td>-ø-ø[a]</td>
<td>-ø-øa</td>
<td>-ø-øa</td>
</tr>
<tr>
<td>Collective, Certainty (Future)</td>
<td>*-ø-øa</td>
<td>-ø-ø[a]</td>
<td>-ø-øa</td>
<td>-ø-øa</td>
</tr>
<tr>
<td>Collective, Doubt (Future)</td>
<td>*-ø-øa</td>
<td>-ø-ø[a]</td>
<td>-ø-øa</td>
<td>-ø-øa</td>
</tr>
<tr>
<td>Non-Collective (Immediate Past)</td>
<td>*-ø</td>
<td>-ø</td>
<td>-ø</td>
<td>-ø</td>
</tr>
<tr>
<td>Collective (Immediate Past)</td>
<td>*-ø</td>
<td>-ø</td>
<td>-ø</td>
<td>-ø</td>
</tr>
<tr>
<td>Non-Collective (Distant Past)</td>
<td>*-ø</td>
<td>-ø</td>
<td>-ø</td>
<td>-ø</td>
</tr>
<tr>
<td>Collective (Distant Past)</td>
<td>*-ø</td>
<td>-ø</td>
<td>-ø</td>
<td>-ø</td>
</tr>
<tr>
<td>Third-person Collective Particle</td>
<td>*toto</td>
<td>to ( / toto)</td>
<td>toto</td>
<td>toto</td>
</tr>
</tbody>
</table>

The Collective and Non-Collective forms used in the Immediate and Distant Past, *-ø and *-ø, can be reconstructed without much trouble (Tiriýó -ti: [in which the vowel length is only perceptible if a clitic particle follows] appears to be an extension from the Present Certainty form). The Non-Collective Certainty forms used in the Present and Future are identical; they present the problem of an unexpected glottal stop in Akuriyó, pointing to a Proto-Taranoan *c, which is contradicted by Karihona, in which the *c should have been preserved. There is some further evidence for a fricative consonant
there: in more conservative non-Taranoan languages, the Certainty evidential suffix has
the form -sǐ (e.g. in Kaxuyana). Gildea 1998 (table 5.11) reconstructs *-ce to Proto-
Cariban. It seems, however, somewhat hasty to reconstruct a Proto-Taranoan *-ce for this
suffix, especially since glottal stops in Akuriyó have a somewhat unstable status (cf. Chap.
3); *-e will be preferred here.

The Non-Collective Doubt forms used in the Past and in the Future are
reconstructed as differing in the last vowel based only on Tiriyó evidence (e.g. the 1 form
w-ene-ta-n ‘maybe I will see’, but w-ene-ta-ne nkəra ‘maybe I will still see’, with the clitic
particle nkəra ‘still’); the Akuriyó cognate found in the corpus is in a reduced form, and
no Karihona cognate is attested (which presumably would remain fully syllabic instead of
reducing to -n). For the time being, *-ne and *-ne will be reconstructed as different
suffixes at the Proto-Taranoan level. 34

The Collective forms used in the Present have the same *-ta collective mark found
in the Immediate and Distant Pasts. In Tiriyó, the form -tiː: may have been the result of the
coalescence of *-tə with the Certainty marker *-i < *-e (*-tə-i > -tiː); it would then have
replaced the Doubt form (which one might expect to be *-tə-na, but which is unattested in
all Taranoan languages; it was included in Table 30 to represent a possible vacant slot, but
there were no attested forms that could be used to reconstruct the morpheme sequence
necessary to fill it). 35 The suffix -tiː: would have been later extended to the Immediate Past
(possibly replacing an earlier *-tə-u < *-tə-wi).

---

34 The suffix *-ne may be related to the Distant Past, also reconstructed as *-ne in Table 29 (cf. Hoff's
1986 suggestion that the Distant Past suffix be analyzed as having evidential value). Cf. also the final
syllable of the Kaxuyana future marker -jañe.
35 In fact, given the absence of *-tə-na, there is no reason to segment the final *-i in *-tə-i synchronically
(except perhaps to point out the similarity of *-tə with the Past collective marker *-ta, and the possibility
The Collective forms used in the Future have a different collective marker *-hkə (which, in Tiriyó, appears to have followed a path analogous to its Present counterpart: *-hkə-i > -hki:). Why this marker should be *-hkə rather than *-tə remains unexplained.\textsuperscript{36}

The third-person collective particle is reconstructed as *toto. The Tiriyó reflex represents an apparently irregular loss of the second syllable. This loss appears to be ongoing: Tiriyó speakers recognize the form toto, which occurred a couple of times in recorded texts, as being equivalent to the overwhelmingly more frequent to.\textsuperscript{37}

6.5.3. Imperatives. The imperatives can be seen as belonging to the TAM-2 affixes; since, however, there are certain differences concerning the person-marking prefixes that can occur with them, they will be treated separately here. The following table contains the attested forms.

There are two imperative suffixes: the Motion (or 'go') Imperative, which implies motion to some other place before carrying out the order (e.g. Tiriyó ene-tə 'go [elsewhere] see it!', from ene 'to see'), and the Static Imperative, which does not imply motion (e.g. Tiriyó apəh-kə 'catch it!'). Each imperative has a collective form, used when a group is being addressed (e.g. Tir. apəh-tə-kə 'you all catch it!', ene-ta-tə-kə 'you all go see it!'). The following table contains the attested forms.

\textsuperscript{36} One possibility is that the \( k \) may have been originally a part of the Future marker. The (possibly) closely related language Karinya (which seems to be the only other Cariban language to have a finite future form) has as the Future Certainty Non-Collective form -take (the Doubt form is -tan; the Collective Doubt/Certainty form is -ta:ton), which is comparable to Proto-Taranoan *-ta. This \( k \) in Karinya seems to be the same as the \( k \) in the Taranoan Future Collective forms; the preceding aspiration, however, remains unclear.

\textsuperscript{37} The loss of the second syllable should cause compensatory lengthening in Tiriyó, which would be hearable whenever a clitic particle follows. This detail will be checked in future elicitation.
Table 31.
Imperative suffixes (collective and non-collective forms)

<table>
<thead>
<tr>
<th>Suffix</th>
<th>PT</th>
<th>Tiriyó</th>
<th>Akuriyó</th>
<th>Karihona</th>
</tr>
</thead>
<tbody>
<tr>
<td>Static Imperative (non-collective)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nasal reducing stems</td>
<td>*-Ø-κə</td>
<td>[-Ø-κə]</td>
<td>-Ø-κə</td>
<td>-Ø-гə</td>
</tr>
<tr>
<td>Other stems</td>
<td>*-Ø-κə</td>
<td>[-Ø-κə]</td>
<td>-Ø-κə</td>
<td>-Ø-κə</td>
</tr>
<tr>
<td>Static Imperative (collective)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nasal reducing stems</td>
<td>*-τə-κə</td>
<td>-τə[-κə]</td>
<td>-τə-κə</td>
<td>-дə-κə</td>
</tr>
<tr>
<td>Other stems</td>
<td>*-τə-κə</td>
<td>-τə[-κə]</td>
<td>-τə-κə</td>
<td>-τə-κə</td>
</tr>
<tr>
<td>Motion Imperative (non-collective)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nasal reducing stems</td>
<td>*-τa[-κə]</td>
<td>-τa</td>
<td>-τa</td>
<td>-da</td>
</tr>
<tr>
<td>Other stems</td>
<td>*-τa[-κə]</td>
<td>-τa</td>
<td>-τa</td>
<td>-τa[-κə]</td>
</tr>
<tr>
<td>Motion Imperative (collective)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>*-τa-τə-κə</td>
<td>-τa-τə-κə</td>
<td></td>
<td>-τa-τə-κə</td>
</tr>
</tbody>
</table>

The Static and Motion Imperatives can be easily reconstructed as *-κə and *-τa.

The Karihona allomorphs -гə, -дə and -да occur with nasal reducing stems and is explainable as the result of the evolution of nasal clusters into voiced stops (cf. 4.2.1). So, Karihona imo-гə ‘stack it!’ imo-дə-κə ‘you all stack it!’, and imo-да ‘go stack it!’, from the root momu ‘to stack’, indicates Pre-Karihona *imon-κə, *imon-τə-κə, and *imon-τa, further reconstructible to Proto-Taranoan due to the presence of nasal clusters in the same environment in Tiriyó (e.g. Tiriyó ona[mi]l ‘to hide/bury’ > onan-κə ‘hide/bury it!’, onan-τə-κə ‘you all hide/bury it!’, onan-τa ‘go bury it!’; no relevant Akuriyó data is available, but it presumably would follow the Tiriyó pattern).
Certain person-marking prefixes co-occur with imperative morphemes. Transitive verbs take $k$-, to indicate a first-person object, or $\emptyset$-, to indicate a third-person object, as in the examples below:

<table>
<thead>
<tr>
<th>(23)</th>
<th>Tiriyó</th>
<th>Akuriyó</th>
<th>Karihona</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$eta$ ‘hear’</td>
<td>$ar\omega$ ‘take’</td>
<td>$eba$ ‘teach’</td>
</tr>
<tr>
<td>first-person O: ‘V me!’</td>
<td>k-$\text{ata-}k\omega$</td>
<td>k-$\omega\text{r-}k\omega$</td>
<td>k-$e\text{ba-}k\omega$</td>
</tr>
<tr>
<td>third-person O: ‘V him/her/it!’</td>
<td>$\emptyset$-$\text{eta-}k\omega$</td>
<td>$\emptyset$-$\omega\text{r-}k\omega$</td>
<td>$\emptyset$-$e\text{ba-}k\omega$</td>
</tr>
</tbody>
</table>

Intransitive verbs in Tiriyó and Akuriyó take the prefix $\omega$-, if they belong to the O conjugation, or $\emptyset$-, if they belong to the A conjugation:

<table>
<thead>
<tr>
<th>(24)</th>
<th>Tiriyó</th>
<th>Akuriyó</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$\text{emamina}$ ‘play’</td>
<td>$\text{erama}$ ‘return’</td>
</tr>
<tr>
<td></td>
<td>(O-conjugation)</td>
<td>(A-conjugation)</td>
</tr>
<tr>
<td></td>
<td>$\omega\text{-emamina-}k\omega$</td>
<td>$\text{erama-}k\omega$</td>
</tr>
<tr>
<td></td>
<td>‘play!’</td>
<td>‘come back!’</td>
</tr>
</tbody>
</table>

In Karihona, intransitive verbs apparently never take any person-marking prefixes in the imperative (e.g. $k\omega\text{tu-}k\omega$ ‘shout!’; cf. Tiriyó O-conjugation $\omega\text{-k\omegahtun-}k\omega$ ‘shout!’), a partial cognate).

The following table summarizes the information concerning person-marking prefixes on imperative forms.

---

38 Co-occurrences of prefixes other than $\emptyset$- with the Motion Imperative ($\text{-}ta$) are attested only in Tiriyó. Although I do not expect the other languages to differ from Tiriyó in this respect, this detail should of course be checked in the future.
<table>
<thead>
<tr>
<th>Prefix</th>
<th>PT</th>
<th>Tiriyó</th>
<th>Akuriyó</th>
<th>Karihona</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transitive Verbs</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1O (‘V me!’)</td>
<td>*k(ə,o)-</td>
<td>k(ə,o)-</td>
<td>k(ə,o)-</td>
<td>k-</td>
</tr>
<tr>
<td>3O (‘V him/her/it!’)</td>
<td>*Ø-</td>
<td>Ø-</td>
<td>Ø-</td>
<td>Ø-</td>
</tr>
<tr>
<td>Intransitive Verbs</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>O conjugation</td>
<td>*ə-/*a-/*o-</td>
<td>ə-/a-/o-</td>
<td>ə-</td>
<td>Ø-</td>
</tr>
<tr>
<td>A conjugation</td>
<td>*Ø-</td>
<td>Ø-</td>
<td>Ø-</td>
<td>Ø-</td>
</tr>
</tbody>
</table>

As far as their forms and allomorphy patterns go, these prefixes are identical with (and probably really are) some allomorphs of the 1+2 (or 12AO; cf. 6.5.1.1), 2, and 3 prefixes of the O set; their reconstructed forms are thus based on the same arguments used in 6.2.\(^{39}\) The remaining O set prefixes, 1 and 3R, do not occur on Imperative forms.

The distribution of the prefixes for transitive Imperative forms is the same in all languages and can be immediately reconstructed to Proto-Taranoan. As for intransitive verbs, Tiriyó and Akuriyó distinguish in the Imperative form the same two categories that were conjugated differently in the finite tenses (cf. 6.5.1.2), while Karihona treats both in the same way. The best account of these correspondences is to see the Imperative prefixes as another specificity of each Intransitive conjugation, and to see Karihona as having generalized the (originally A-conjugation) prefixless forms as a part of the process of

---

\(^{39}\) This implies that one should expect vowel-initial O-conjugation verb stems to have taken *əj-, not simply *ə (i.e. a hypothetical *emamina ‘play’ would have the imperative form *əj-emamina-kə), although no such cases are preserved, since Karihona, the only language that would have preserved the final j, lost this morphological feature of the O-conjugation.
merging both conjugations into one (cf. 6.5.1.2, and also 7.2.1; cf. Meira ms-c for a first family-wide approach at the two intransitive conjugations).⁴⁰

6.5.4. *-ce Forms. All tense/aspect/modality affixes considered thus far are attached to what might be called the ‘normal stem’ of a verb. In addition, there are several other verb forms that are derived from a different form of the stem, marked with a special suffix reconstructed as *-ce for Proto-Taranoan, and glossed as -CE below. The Tiriyo examples below illustrate these forms (based on the reducing stem ponopi ‘to tell (a story)’)

(25) Supine (stem + -se) Participle/Narrative Past (t- + stem + -se)

\[
\begin{align*}
\text{i- pono: -se wi-tan} & \quad \text{sera ti-pono: -se pahko ja} \\
3O-tell \ -CE 1-go:Im.Pst & \quad \text{this T-tell \ -CE 1:father Agt} \\
'\text{I have gone (there) to tell}' & \quad \text{‘My father told this (long ago).'}
\end{align*}
\]

Negative (stem + -se-wa) Habitual Past (stem + -se)

\[
\begin{align*}
\text{sera in-pono: -se-wa wae} & \quad \text{pena ahtao, amera ra i-pono: -se pahko} \\
\text{this 3Neg-tell-CE-Neg 1:Cop} & \quad \text{long.ago when everything 3O-tell -CE 1:father} \\
'\text{I don’t tell this (story).'} & \quad \text{‘Long ago, my father used to tell all kinds of things’}
\end{align*}
\]

The *-ce stem formative,⁴¹ on which all these forms are based, has a relatively complex allomorph pattern, as can be seen in the following table and examples.

---

⁴⁰ One irregular form deserves mention: the imperative of the verb ‘to come’ (Tir. ohka, Ak2. aeka, no Karihona cognate available). No explanation has been found for the difference in the stem vowels.

⁴¹ Whether the stem formative -se should be analyzed as a separate morpheme (or as having coalesced with the other morphological markers) depends on the language; in Tiriyo, it may be better to consider e.g. the negative morpheme as -sewa rather than -se-wa.
### Table 33.
Allomorphs of *-ce.

<table>
<thead>
<tr>
<th>Suffix</th>
<th>PT</th>
<th>Tiriyó</th>
<th>Akuriyó</th>
<th>Karihona</th>
</tr>
</thead>
<tbody>
<tr>
<td>CV reducing stems (C = p/h, t, k, r)</td>
<td>*-ce</td>
<td>-se</td>
<td>-ce</td>
<td>-se</td>
</tr>
<tr>
<td>Nasal reducing stems</td>
<td>*-ce</td>
<td>-je</td>
<td>-?e</td>
<td>(-se)</td>
</tr>
<tr>
<td>Stems ending in a, ŋ, o</td>
<td>*-e</td>
<td>-e</td>
<td>-?e</td>
<td>-e</td>
</tr>
<tr>
<td>Stems ending in e</td>
<td>*-e</td>
<td>-:</td>
<td>-?e ~ -Ø</td>
<td>(-Ø)</td>
</tr>
</tbody>
</table>

(26)

<table>
<thead>
<tr>
<th></th>
<th>Tiriyó</th>
<th>Akuriyó</th>
<th>Karihona</th>
</tr>
</thead>
<tbody>
<tr>
<td>CV reducing</td>
<td>iponopi ‘tell’ &gt; ipono:-se</td>
<td>ipananipi ‘hear’ &gt; ipanani:-ce</td>
<td>enahī ‘eat’ &gt; ena-se</td>
</tr>
<tr>
<td>Nasal reducing$^{42}$</td>
<td>onami ‘bury’ &gt; onan-je</td>
<td>ko(ː)mami ‘night’ &gt; ko(ː)ma-?e</td>
<td>koma-mi ‘night’ &gt; koma-se</td>
</tr>
<tr>
<td>Stems in a, ŋ, o</td>
<td>eta ‘hear’ &gt; eta-e</td>
<td>ehpā ‘bathe’ &gt; ehpā-?e</td>
<td>iwa ‘fetch’ &gt; iwa-e</td>
</tr>
<tr>
<td>Stems in e</td>
<td>ene ‘see’ &gt; ene-:</td>
<td>ene ‘see’ &gt; ene-?e</td>
<td>ene ‘see’ &gt; ene-Ø</td>
</tr>
</tbody>
</table>

The data in this section must be considered with some caution. Only two cases of nasal reducing stems with -se are attested in the Akuriyó (Ak2) data; one of them has -je with retention of the nasal consonant (ko(ː)manje), while another one had -?e without retention of the nasal consonant (ko(ː)ma?e). Since the former is exactly what is found in Tiriyó, and comes from an informant who is younger and thus more susceptible to Tiriyó influence, the latter was considered as closer to the original form. In the Karihona corpus, due to the fact that most of the data in Kh1 (except in the phonology sections) are segmented in underlying morphemes, the actual phonological shape of polymorphemic words must be calculated with the help of the morphophonological rules. This was the case for the few examples of nasal reducing stems, and of stems ending in e; the forms koma-se and ene-Ø, given in the Karihona column, reflect my interpretation, according to the author’s rules for combining morphemes, of the segmented examples. For ena-se and

$^{42}$ Some stems ending in i-diphthongs in Tiriyó had the allomorph -je (e.g. imoi ‘to obey’ > imoi-je); since no cognates are attested in the other languages, these stems are disregarded here.
iwa-e, non-segmented examples (from the phonology section and from one short text) could be found.

The reconstruction of *-ce for CV reducing stems presents no special problem. The *-ce form of nasal reducing stems shows the correspondence Tir nj, Ak ??, Kh s, which was reconstructed in 4.2.1 as *nc. Thus, the *-ce form of *ko:mami ‘fall (night), stay out until nightfall’ (Tir ko:manje, Ak ko(:)ma?e, Kh komase) should be reconstructed as *ko:mance.

The reconstruction of *-e, rather than *-ce, occurring with stems ending in a, o, is basically due to the fact that a *c would have been preserved in Karihona in this environment; Kh -e indicates that, if this *c existed (for which there is evidence from non-Taranoan languages; e.g. Kaxuyana t-oska-ce ‘bit, bitten’, the t-V-ce form of eska ‘bite’; cf. Gildea 1997, and also Gildea 1998 [Sec. 8.3]), it was lost before Proto-Taranoan times. The glottal stop in Akuriyó suggests that *-e may have been an independent syllable, which might be a reflex of this Pre-PT *c; since, however, Akuriyó glottal stops are not always consistent, it seems better to leave this detail undecided.

The reconstruction of *-e, rather than *-Ø, as the allomorph of *-ce that occurs with stems ending in e is based on the final lengthening in Tiriyó (observed in the negative form: in-ene:-wa ‘not seeing him/her/it’), and in the -?e ~ -Ø in Akuriyó (e.g. the t-V-se form of ene ‘see’, which was transcribed once as t-ene-?e and once as t-ene). It is possible that Proto-Taranoan already had pure vowel length (and the Akuriyó optional glottal may have resulted from the stress system [cf. Chap. 3], which optionally glottalizes long vowels); by writing the allomorph as *-e, without indicating its syllabic status, this question is left open.
The verb forms which are based on the *-ce stem are not the same in all Taranoan languages; this is shown in Table 34.

<table>
<thead>
<tr>
<th>Suffix</th>
<th>PT</th>
<th>Tiriýó</th>
<th>Akuriýó</th>
<th>Karihona</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supine (‘purpose-of-motion’)</td>
<td>*YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td>Habitual Past</td>
<td>*?</td>
<td>YES</td>
<td>YES</td>
<td></td>
</tr>
<tr>
<td>Participial (‘t-V-ce’)</td>
<td>*YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td>Negative</td>
<td>*NO</td>
<td>YES</td>
<td>YES</td>
<td>NO</td>
</tr>
</tbody>
</table>

Since these forms have specific individual characteristics, each of them will be discussed in a different subsection.

6.5.4.1. Supine and Habitual Past. The supine, or ‘purpose-of-motion’, form is used to indicate purpose with a verb that implies motion (such as Tir. tɔ[mɪ] ‘go’, ɛe[pɪ] ‘come’, enno[kɪ] ‘send/order’, etc.), as in (25) above. It is formed with the appropriate reflex of the suffix *-ce, and a possible person-marking prefix. Transitive verbs (at least in Tiriýó, and presumably also in the other languages) take O set prefixes referring to the object, including third-person Ø-. Intransitive verbs take no prefix if the stem is vowel-initial, and a ‘generic’ i- prefix if the stem is consonant-initial.\(^{43}\)

\[(27)\] sen pona w-æ æ- eta -e (eta ‘hear’, transitive stem)
this Dir 1-come 2O-hear-CE
‘I came here to hear you.’

\(^{43}\) This i- prefix is probably related to (if not the same as) the prefix-final i discussed in 6.5.1.1; cf. the discussion after Table 22; they may also be related to the third-person O set allomorph i-.
(28a) sen pona w-ae i-kahtun-je  
this Dir 1-come Gen-shout-CE  
'I came here to shout.'

(28b) sen pona w-ae ere:ta-e  
this Dir 1-come  rest -CE  
'I came here to rest.'

Similar forms with the same meaning exist also in Akuriyó and Karihona (cf. examples below), which allows the reconstruction of the supine, with its 'purpose-of-motion' meaning, to Proto-Taranoan.

(29) ehpá-e a-ta-e  
bathe-CE 1-go-Pres.Evid  
'I am going (to the river) to bathe.'

(30) wi-ta-e i- wa -e  
1-go-Pres.Evid 3O-fetch-CE  
'I am going (there) to get it.'

The habitual past has exactly the same form as the supine: an optional prefix (an O set prefix marking the object on transitive stems, the generic i- on consonant-initial intransitive stems, and nothing on vowel-initial intransitive stems), the stem, and the reflex of *-ce. Unlike the supine, which requires a verb of motion, the habitual past can occur by itself as the main predicate. As exemplified for Tiriýó in (25) above, its meaning is comparable to that of the English 'used to'. Comparable forms occur in Akuriyó:

(31) anja pa a?iwa-?e repe  
1+3 Rept hunt- CE Frust  
'(Back then) we used to hunt in vain.'
No conclusive examples of the habitual past occurred in the Karihona corpus. There were, however, certain cases of a *-ce form occurring with the copula, which is not a motion verb:

\[(32a) \quad \emptyset\text{-arə-e nai} \quad \text{3O-take-CE 3:Cop} \quad \text{3O-eat-CE 3:Cop} \quad \text{3O-eat-CE 3:Cop} \quad \text{Orig. 'Hay que cargar.'} \quad \text{Orig. 'Hay que comer.'}\]

It would appear that these Karihona examples represent an intermediate stage between the supine (which occurs with verbs implying motion) and the Tiriwó-Akuriwó habitual past (which occurs by itself), in which the *-ce form occurs with the copula. This means that the supine and the habitual past forms should not be reconstructed independently to Proto-Taranoan; rather, only the supine is reconstructible, while the Tiriwó-Akuriwó habitual past can be seen as resulting from a path of evolution such as the one depicted in Fig. 8:

\begin{figure}
\centering
\begin{tabular}{cccc}
(1) Proto-Taranoan$^{44}$ & (2) Karihona & (3) Tiriwó-Akuriwó & \\
\hline
\text{supine + Motion Verb} & \text{supine + Motion Verb} & \text{supine + Motion Verb} & \text{habitual past (*Copula)} \\
\text{supine + Copula} & \text{supine + Copula} & \text{supine + Copula} & \\
\end{tabular}
\caption{The evolution of supine into habitual past.}
\end{figure}

\footnote{It is not impossible that the supine + copula construction already existed in Proto-Taranoan; a cross-Cariban comparative study would be necessary to check whether the first phase of this diagram actually happened between Proto-Taranoan and the modern languages, or before Proto-Taranoan times.}
The meaning of the supine + Copula construction in Karihona ('must', 'hay que') is not hard to relate to the 'purpose' meaning of the supine with motion verbs when one realizes that the copula can also have existential value: from 'there is' (cf. the original Spanish gloss 'hay', which has existential uses, too) + purpose, i.e. 'there is (something) to be done', to '(something) must be done'. Thus, (32a) would have evolved from 'there is' + 'to take it' to 'it must be taken', 'it is to be taken'.

The further evolution into a habitual past is semantically less clear; however, especially with a past copula ('was to be done'), similar cases are attested elsewhere (cf. Bybee, Perkins and Pagliuca's 1994:154ff description of several cases of 'was' + Future constructions becoming habitual pasts, the closeness between purpose and future being obvious), so that the path from 's/he had to play', 's/he was to play' to 's/he used to play' becomes more acceptable. The interesting final detail is that, at least in Tiriyó, the copula can no longer co-occur with the habitual past.

6.5.4.2. Participial. The participial or t-V-ce form is formed with a prefix t-, which has, for transitive and O-conjugation intransitive verbs, the same allomorphic pattern as the third-person reflexive (3R) prefix reconstructed in the O set (cf. 6.2), and which is also reconstructed as *(a,o)-. For A-conjugation intransitives, however, the prefix becomes

---

45 It might be the case that the copula could have an explicit subject, which could be expected to be the person who has the obligation: 'there is [someone] to take it', as in English 'someone is to take it'. Unfortunately, there were no such examples in the Karihona materials.

46 The reason for the label 'participial' is that this form can have the meaning of a stative participle (as in e.g. Tiriyó apa t-e:pahka-e 'the seat is broken', from epahka 'to get broken', and this meaning seems to be the oldest one in the Cariban family (cf. Gildea 1997, 1998 [Chap. 13]). In Taranoan languages, however, other meanings are more frequent; in Tiriyó, for instance, it would be better to call the t-V-ce form a 'narrative/distant past'. Since the meanings are not the same in all languages, the word 'participial' will be kept as a convenient, but not very precise, label.
more complicated. No person-marking prefixes can occur on a participial form. The forms are illustrated in the following table and examples.

Table 35.
Forms of the participial prefix (*t-*)

<table>
<thead>
<tr>
<th>Prefix</th>
<th>PT</th>
<th>Tiriyó</th>
<th>Akuriyó</th>
<th>Karihona</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transitive and O-Intransitive stems</td>
<td>*t(ə,o)-</td>
<td>t(ə,o)-</td>
<td>t(ə,o)-</td>
<td>t-</td>
</tr>
<tr>
<td>ə-initial A-Intransitive stems</td>
<td>*tiw-</td>
<td>tiw-</td>
<td>t-</td>
<td>t-</td>
</tr>
<tr>
<td>e-initial A-Intransitive stems</td>
<td>*t(:)-</td>
<td>t(:)-</td>
<td>t(:)-</td>
<td>t-</td>
</tr>
<tr>
<td>C-initial A-Intransitive stems</td>
<td>*ti:-</td>
<td>ti:-</td>
<td>ti:-</td>
<td>ti-</td>
</tr>
</tbody>
</table>

(33) 

<table>
<thead>
<tr>
<th>Tr., O-Intr.</th>
<th>Tiriyó</th>
<th>Akuriyó</th>
<th>Karihona</th>
</tr>
</thead>
<tbody>
<tr>
<td>ə-initial A-Intr.</td>
<td>ə:niki 'sleep' &gt; t-ənɪ-ce</td>
<td>ə:niki 'sleep' &gt; t-ənɪ-ce</td>
<td>oniki 'sleep' &gt; t-oni-se</td>
</tr>
<tr>
<td>e-initial A-Intr.</td>
<td>epi 'bathe' &gt; t-ɛpə-e⁴⁷</td>
<td>ɛtaka 'eat' &gt; t-ɛ(:)taka-ɛl</td>
<td></td>
</tr>
<tr>
<td>Stems in e</td>
<td>tə(mi) 'go' &gt; ti:-tə-e</td>
<td>tami 'go' &gt; ti:-tə-e</td>
<td>ta(mə) 'go' &gt; ti-tə-e</td>
</tr>
</tbody>
</table>

The reconstruction of *t(ə,o)-* is exactly the same as that of the 3R prefix in 6.2 (including the existence of a *ti* allomorph for consonant-initial stems; cf. the following transitive forms: Tir ponopi 'to tell' > ti-pono:-se, Ak2 pananipi 'to listen' > ti-panani:-ce, Kh1 hinahi 'kill' > ti-hina-se).⁴⁸ The forms *tiw-, *t(:)-* and *ti:-* are kept consistently

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⁴⁷ The change from /i/ to ə in the stem-final vowel is an irregularity of this stem and remains unexplained.

⁴⁸ The similarity with the third-person reflexive O set prefix suggests some speculation on a possible path of development for the participle with the supine as the source. The various allomorphs of the participial prefix can be seen as reflexes of an intrusive *w* in the A-conjugation stems (conserved with ə-stems, changed into vowel length with e-stems and consonant-initial stems; cf. next footnote); this would make the participial prefix have exactly the same allomorphs as the third-person reflexive. To see how *t- '3R' could fit in the supine + motion verb construction, consider the following Tiriyó examples, based on the verb stem e:ka 'bite':

(i) nitaŋ j-e:ka-e 's/he went to bite me' (j- '1O')
(ii) nitaŋ ə-eka-e 's/he went to bite you' (ə- '2O')
(iii) nitaŋ k-ə:ka-e 's/he went to bite us' (k- '1+2O')
(iv) *nitaŋ t-ə:ka-e '?' (t- '3R') (hypothetical, non-attested Tiriyó form)

Notice that the subject of nitaŋ 's/he went' is coreferential with the subject of e:ka 'bite' in (i-iii); if something like (iv) is assumed to have existed at some point in the history of Cariban languages, what could it have meant? There would be a contradiction: the construction demands that the subjects of both verbs be coreferential, but the t- prefix, which is occurring in the object slot, demands coreferentiality with
distinct only in Tiriyó; since there is no obvious source for the *w- and the vowel length in these forms, they will be reconstructed as such to Proto-Taranoan; Karihona probably lost the difference, and Akuriyó apparently lost the *w- part.  

The participial form can occur in Tiriyó (and presumably also in Akuriyó) with the meaning of a stative participle (cf. the first footnote in the present section). In these two languages, however, its most frequent meaning is that of an eventive ‘distant/narrative past’, with overt marking of the A NP, as in (25), and in (34-35):

(34) \textit{jii:-re ti-ra-e pahko ja} \hspace{1cm} \textit{(Tiriyó)}
\begin{itemize}
\item 1-arrow T-make-CE 1:father Agt
\item ‘My father made my arrow (long ago).’
\end{itemize}

(35) \textit{pawana t-ap\=a(h)-ce anja pipi -ri ja} \hspace{1cm} \textit{(Akuriyó)}
\begin{itemize}
\item cayman T-catch-CE 1+3 brother-Psfx Agt
\item ‘Our brother caught the cayman (long ago).’
\end{itemize}

the object of the supine verb \textit{e:ka} ‘to bite’. This degree of freedom is not available in the present-day languages; (iv) is not possible in Tiriyó. But what if it had been available before? What if the *-ce morpheme had marked a general purpose construction, with both A and O free. O probably indicated by the O set prefixes and A occurring in a postpositional (by-)phrase (possibly with the postposition *w\=a)? In this case, the (pre-Proto-Cariban?) analogous of (iv) might have meant: ‘s/he went in order for (someone else) to bite him/her’; or, if the subject of ‘to bite’ was not specified, ‘s/he went in order to get/be bitten’, which would explain the O-orientedness of the \textit{t-V-ce} form. In other words, maybe *-ce had, long ago, the functions and the morphosyntax of the present-day purpose construction based on *-\textit{topo me/pe} (cf. Gildea 1998 [Sec. 8.2] for a summary description): a *-\textit{topo me/pe} analogous of (iv) would probably have exactly the meaning that is being suggested here for (iv). This *-ce general purpose construction would have later on evolved into the more specialized purpose-of-motion construction, losing part of its morphosyntactic independence.

\footnote{This *w- may be seen as an independent prefix, marking certain (less finite, nominalized) forms of A-conjugation intransitive verbs. Its etymology is unknown, though it probably is related to the reflexive morpheme; this issue will not be pursued here (cf. Meira ms-b for a synchronic description in Tiriyó, and Gildea 1998 [Sec. 8.3] for a cross-Cariban perspective). This *w- was probably present in all forms at some point in the Pre-PT past; it became vowel length on e-initial stems in Tiriyó, on consonant-initial stems in both Tiriyó and Akuriyó, and was lost in Akuriyó on a-initial stems. In Karihona, it simply disappeared, as part of the process of merging of the A and O conjugations (cf. 6.5.1.2, 6.5.3).}
In Karihona, the participial does not occur as an eventive ‘distant/narrative past’ marker, but rather only with a more stative meaning, apparently close to ‘serving for good for’ (36-37 from Kh1, 38 from Kh3).^{50}

(36)  
\[ t\text{-eni-se}\_nai \]
T-drink-CE 3:Cop
‘(in order to, let’s) drink’
(Orig. ‘a beber’)  
(37)  
\[ t\text{-eni-se}\_ake\_nai \]
T-drink-CE Neg 3:Cop
‘we don’t have to drink, there isn’t (to) drink’
(Orig. ‘on n’a pas à boire’; oblig. / exist.)

(38)  
\[ moni\_tawi\_t\text{-oni-ce} \]
house Loc T-sleep-CE
‘Let us sleep in the house!’ (i.e. = ‘in the house (it is good) to sleep’)
(Orig. ‘läßt uns im Haus schlafen!’ / ‘durmamos en la casa!’)

An explanation for this difference in meaning between Karihona and Tiriyo-Akuriyo is that the Proto-Taranoan participial was semantically stative, and that the eventive value is a more recent Tiriyo-Akuriyo innovation while Karihona remained more conservative. A possible path for this evolution was developed by Gildea 1997 (cf. also Gildea 1998 [Chap. 13]) for the entire family. The interesting detail brought up by the Taranoan case is that, at least in this sub-branch, this evolution must have been rather recent, due to the shallow time depth of Taranoan (500-900 years; cf. Chap. 8).

6.5.4.3. Negatives. As was shown in Table 34, not all Taranoan languages base their negatives on the *-ce form of the verb stem. In fact, given the existence of several different ways of doing negation (particles, affixes) across word classes, it seems wiser to

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^{50} The Spanish and French translations, ‘a beber’, ‘on n’a pas à boire’, do not permit an unambiguous interpretation of the meaning of this form in Karihona. The interpretation offered here is based on Derbyshire’s 1985 for Hixkaryana, a non-Taranoan Cariban language, which seems compatible with the available examples.
have a general comparative look at negative markers in terms of their functions and pattern of occurrence, which is done in Table 36 (the morphemes that contain *-ce or its reflexes should be understood to follow the allomorphic pattern described in Table 33).

<table>
<thead>
<tr>
<th>Marker/Type of Negation</th>
<th>Tiriyó</th>
<th>Akuriyó</th>
<th>Karihona</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal/Adjectival Negation</td>
<td>ta[ike]</td>
<td>ti[ke]</td>
<td>daike, ake</td>
</tr>
<tr>
<td>Nominal Existential Negation</td>
<td>wa[: ]</td>
<td>wa[:]</td>
<td>wa</td>
</tr>
<tr>
<td>Privative/Generic Negation (Nouns, Verbs)</td>
<td>-ra</td>
<td>-pira</td>
<td></td>
</tr>
<tr>
<td>Verbal Negation</td>
<td>-se-wa</td>
<td>-ce-wa</td>
<td>wa, -ha</td>
</tr>
</tbody>
</table>

The Nominal/Adjectival Negation markers are particles used to form opposites:

(39) Adjective: *kure* ‘good, pretty’  Noun: *pəmɔi* ‘pepper’, *hamaɔi* ‘salt’

Tiriyó: kure ta ‘bad, ugly’  pəmɔi ta ‘not pepper’
Akuriyó: kure tike ‘bad, ugly’  pəmɔi tike ‘not pepper’
Karihona: kur-ake ‘bad, ugly’  hama daike ‘not salt’

Tiriyó *ta[ike]* and Akuriyó *ti[ke]* have the same function. The difference between Karihona *ake* and *daike* is not well understood. The above example (the only one found in Kh1) suggests a word class categorization: *-ake* on adjectives/adverbs, and *-daike* on nouns. There are three more examples in Kh3, two of which are *t-N-ke* adverbs: *t-ənu-*daike ‘blind’ (from *enu* ‘eye’), *t-i-pana-*daike ‘deaf’ (from *pana* ‘ear’), and *ikudza sa(x)kani daike* ‘unsuccessful in fishing’ (from *ikudza* ‘fish’, *sa(x)kani* ‘catching’

---

51 Briefly, *t-N-ke* are adjectives/adverbs derived from nouns and mean ‘having N, provided with N’; e.g. Tiriyó *pakoro* ‘house’ > *t-i-pakoro-*ke ‘having a house, provided with a house’. These derived adjectives/adverbs are not treated in the present work.
[probably from a verbal root sa(x)ka ‘fish’; the ending looks like the non-possessible nominalizing suffix -ni, which Gildea 1998 (Sec. 8.1) calls ‘infinitive’)]. It may be the case that daike is restricted to these environments (nouns, t-N-ke); some cases of nominalizations negated with ake did occur in Kh1, but not with the same nominalizer (e.g. t-eni-se-mi ake ‘not drink’, from t-eni-se-mi ‘drink’, a nominalization based on the t-V-ce form of eniri ‘to drink’). In short, daike and ake may be in complementary distribution rather than in opposition; but the data is too scant to allow any conclusions.

As for determining cognates, Kh daike and Tir ta[ike] certainly look like good candidates; the only problem is the initial d in daike, which suggests a previous *nt cluster which should have been preserved in Tiriyó. Worse than that is Akuriyó ti[ke], which looks enough like ta[ike] and daike to feel cognate, but has a totally unexpected i instead of the ai diphthong. The first idea that comes to mind, when looking at these forms, is that they may have been compound forms; perhaps there were, at some point, smaller independent particles, say *(i)ke, *a, and *(n)ti, which formed the present-day negative markers by coalescing in different orders (*nti + *(i)ke in Akuriyó, *(n)ti + *a + *ike in Tiriyó and Karihona, and *a + *(i)ke in Karihona). Similar negative particles in non-Taranoan languages also look as though they could result from the coalescence of smaller particles: cf. the negative tapek in Wayana and taki in Kaxuyana. For the time being, however, it may be better to reconstruct only *(n)taike, based on Tiriyó and Karihona, and leave Kh ake and Ak ti[ke] unexplained.

The Nominal Existential Negation particle can be reconstructed easily as *wa: to Proto-Taranoan; it occurs in copular clauses to indicate the non-existence of a noun, as in the following examples:
This particle *wa: appears to be present also in the Verbal Negation affixes, but only in Tiriyó and Akuriyó, the two languages in which the negative form is also based on the *-ce form of the stem. Karihona is the odd one out in that it takes -ha, a different suffix, on the normal (not the *-ce) form of the verb stem. In all three languages, these negative verb forms are used as complements of the copula, as in the following Karihona examples:

(41a) oniki-ha_wae
sleep-Neg 1:Cop
'I don’t sleep.'

(41b) kaikuci j-eseka-ha_nai
dog IO-bite-Neg 3:Cop
'The dog doesn’t bite me.'

It is possible to have verbal negatives with wa in Karihona, but the verbs are not in the *-ce form (example from Kh3):

(42) ikud3a_ehori wa_nai _karihona
fish find Neg 3:Cop people
'People haven’t caught any fish'

It is difficult to see whether this negative is semantically different from the -ha negative (e.g. 41a-b). It may be closer to a negative existential particle being applied to a
Ø-nominalized form of the verb stem ehorı ‘to find’ (i.e. ‘there wasn’t any catching of fish’). This idea is problematic, though; in such a construction, one would expect the agent to be expressed in a postpositional phrase, similar to an English by-phrase, probably with the postposition ja (cf. Meira-ms for such situations in Tiriyük), but this is not the case for the word karihona ‘people’. At any rate, due to the absence of *-ce, (42) is not the same as the negatives in Tiriyük and Akuriyő, which have the *-ce form, as in (43-44):

(43a) a:ni-se-wa wae
    sleep-CE-Neg 1:Cop
    ‘I don’t sleep.’

(43b) kaikui j-e:ka-e-wa nai
    dog 1O-bite-CE-Neg 3:Cop
    ‘The dog doesn’t bite me.’

(44) a:ni-ce-wa a?e
    sleep-CE-Neg 1:Cop
    ‘I don’t sleep.’

Considering the existence of a likely source for this negative -wa (the Existential Negation particle *wa:), and also the fact that non-Taranoan Cariban languages follow the Karihona pattern (negative formed not with *wa:, but with some form of the Proto-Cariban negation marker *pıra, and based on the normal, not on the *-ce, form of the verb stem), it must be concluded that Karihona is, once more, conservative, and that the evolution of negatives in Tiriyük-Akuriyő involved the extension of the *wa:, from existential negatives, to simple verb negation, replacing *pıra. Notice that the Generic / Privative Negative forms, exemplified below, can be seen as remnants of this earlier stage.
Tir -ra and Ak -pira are certainly cognates; the lengthening in the Tiriyó reflex is obviously the result of the reduction of the first syllable pi. From this cognate set, a Proto-Taranoan negative *pira can be reconstructed. Kh -ha may belong in this set, but the evolution PT *-pira > Kh -ha is unexpected: the intervocalic r and the vowel preceding it were lost, instead of the first syllable. There seems to be another instance of this ir-loss: FOAM *akiro > Kh1 (kahu-)ako ‘cloud’ (=presumably ‘sky-foam’).

The fact that the original negative was not based on the *-ce form of the verb stem while the Tiriyó-Akuriyó innovative negative is begs for an explanation. Why not simply replace *-pira without changing the form of the stem? This fact gives us a clue to the process whereby the extension of *-wa: took place: it must be related to the evolution of the functions of the *-ce form. Therefore, some structure other than the Karihona one in (42) must have been the source of the Tiriyó-Akuriyó negative. A good hypothesis is the ‘supine + Copula’ construction illustrated in (36) for Karihona. This would link the evolution of the negative to that of the other *-ce forms, as is shown in Fig. 9:

---

53 The root ari means ‘that which is contained’; ‘content’; ‘charge’ (as in the charge of a battery).
54 Another possibility, besides considering -ha non-cognate, would be to see in -pira and -ha evidence for the coalescence of smaller particles, as was suggested above for Tir tai[ke], Ak ti[ke], Kh daike, ake. Note also that Karinya, a language suspected to form a subgroup with Taranoan languages, has a similar negative suffix -(x)pa (Hoff 1968:140-141).
Figure 9
The evolution of habitual past and negative from supine + Copula.

<table>
<thead>
<tr>
<th>(1) Proto-Taranoan</th>
<th>(2) Karihona</th>
<th>(3) Akuriyó/Tiriyó</th>
</tr>
</thead>
<tbody>
<tr>
<td>supine + Motion Verb</td>
<td>supine + Motion Verb</td>
<td>supine + Motion Verb</td>
</tr>
<tr>
<td>supine + Copula</td>
<td>habitual past (*Copula)</td>
<td>simple negative (+ Copula)</td>
</tr>
</tbody>
</table>

Recall that the supine + Copula construction apparently has in Karihona a meaning of ‘obligation’, as in (32a-b): arə-e nai ‘it must be taken’, ‘it is to be taken’; ena-se nai ‘it must be eaten’, ‘it is to be eaten’. It is possible to imagine the occurrence of the existential negation particle in such sentences as a means of saying ‘there is nothing to be taken’ (unfortunately unattested in Karihona), a very strong negative, which would later on have weakened into a simple normal negative. This weakening of negation is a well-attested evolution (e.g. the Modern Greek negative particle δεν, from Ancient Greek οὐδέν ‘nothing’). In this respect, it is interesting to note that the negation of the supine in Tiriyó is made with ta[ike], but when it occurs by itself, in the habitual past sense (which derived from the supine + Copula, as shown in Chart 2 above), it takes -wa, which would be expected if the supine + Copula construction could co-occur with *wa:. Compare affirmative examples such as (25) with (45-46):

(45) mərə ˈponə ˈwi-tən ˈepə-ə ˈta
that Dir 1-go bathe-CE Neg
‘I went there in order not to bathe.’

(46) mərə ˈne-kəɾə ˈwi ˈahtə-o ˈj-əki ˈiŋ-ˈtuː-ka-ə ˈwa ˈwi
child as still 1 when, 1-pet 3Neg-hit-CE-Neg 1
‘When I was still a child, I didn’t use to hit my pet.’
Chapter 7

Historical morphology of Taranoan languages.

This chapter sketches the historical development of the morphological systems from Proto-Taranoan to the modern languages. The examples are meant only as illustrations: although they are all composed of reconstructed morphemes, it is not always the case that the specific combination being exemplified (e.g. the first-person collective distant past of the verb 'to go') was attested in all languages.

Section 7.1 contains a sketch of the inflectional morphology of Proto-Taranoan. Section 7.2. describes the changes that took place between Proto-Taranoan and the modern Taranoan languages.

7.1. A sketch of Proto-Taranoan inflectional morphology.

From the viewpoint of inflectional morphology, the following word classes existed in Proto-Taranoan: pronoun, interrogative, noun, verb, postposition, adverb, and particle.

Pronouns, nouns, verbs, and postpositions were sensitive to person (involving at least 1, 2, 3, and 1+2 forms; pronouns were richer, in that they had a 1+3 form, and were also sensitive to deixis/visibility and to animacy in their third person forms) and to number (collective = 'all' vs. non-collective = 'less than all'). Each class had a different set of collective markers. Pronouns could not be possessed; nouns could form possessive constructions. Verbs had a system of Tense-Aspect-Modality/Evidentiality markers. Postpositions could form postpositional constructions when not inflected. Adverbs had no
inflectional morphology, but they could be nominalized. This distinguished them from
particles, which could bear no morphology whatsoever.

The pronominal system of Proto-Taranoan was as follows:

<table>
<thead>
<tr>
<th></th>
<th>Non-Col.</th>
<th>Collective</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>*əwi</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>*əma</td>
<td>*ənjamo</td>
</tr>
<tr>
<td>1+2</td>
<td>*kimə</td>
<td>*kinjamo</td>
</tr>
<tr>
<td>1+3</td>
<td>*anja</td>
<td></td>
</tr>
</tbody>
</table>

The third person forms distinguished (judging by the meaning of their Tiriyo
reflexes) animate and inanimate. For these two classes, there were anaphoric and deictic
forms. For the animate pronouns, this is instantiated as an opposition between anaphoric
*n(ə) forms and deictic *m(ə) forms. The n(ə) and m(ə) syllables may have been
independent elements at some point in the past; *n(ə) may be related to the third-person
prefix n(i)- (cf. Table 41). The deictic forms distinguish three levels of deixis: proximal,
distant visible and distant invisible. The similarities between them suggest that some of
them may have been derived from the others, so that there might have been fewer forms at
some point in the past. The animate pronouns also had collective forms in *-amo, *-jamo,
*-camo, like the non-third person forms (which are also animate). The inanimate pronouns
had an anaphoric *i form, two proximal *(c)e forms and two distal *mə forms. They did
not have specific collective forms.
Table 38.
Third Person Pronouns / Deictics

<table>
<thead>
<tr>
<th></th>
<th>Anaphoric</th>
<th>Proximal</th>
<th>Distant Visible</th>
<th>Distant Invisible</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anm.NC.</td>
<td>*nə(ː)ra</td>
<td>*mə(c)e</td>
<td>*məkiri</td>
<td>*məki</td>
</tr>
<tr>
<td>Anm.Col</td>
<td>*nəmo</td>
<td>*məcəmo</td>
<td>*məjamo</td>
<td>*məki jamo</td>
</tr>
<tr>
<td>Inanimate</td>
<td>*irə</td>
<td>*(c)əra,</td>
<td>*məro</td>
<td>*məni</td>
</tr>
<tr>
<td></td>
<td></td>
<td>*(c)enι</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The interrogatives that have been reconstructed were as below (there are more interrogatives in e.g. Tiriyó that could not be reconstructed to the entire sub-branch without evidence from Karihona and/or Akuriyó cognates):

Table 39.
Reconstructed Interrogatives

<table>
<thead>
<tr>
<th></th>
<th>Interrogative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Animate ('who')</td>
<td>*ənəki</td>
</tr>
<tr>
<td>Inanimate ('what')</td>
<td>*əti</td>
</tr>
<tr>
<td>Manner ('how')</td>
<td>*əke</td>
</tr>
<tr>
<td>Quantity ('how many')</td>
<td>*əhta:ra</td>
</tr>
<tr>
<td>Locative / Directional (where', 'whether')</td>
<td>*ə(c/j)ə</td>
</tr>
</tbody>
</table>

There were two person-marking prefix sets: a more widespread one, used on postpositions (to mark the object), nouns (to mark the possessor) and verbs (to mark the object when the subject was a third person; the third person reflexive, 3R, does not occur

---

1 These forms suggest some speculations. The Animate forms seem to be characterized by an opposition between anaphoric *n forms and deictic *mA forms; the *n(ə) may be related (or even identical) to the third-person verbal prefix n- (especially if the final syllables *ra are seen as reflexes of the emphatic particle *ra). The similarity between the Animate Distant Visible and Invisible forms suggest that they may have the same source (*məkiri looks like *məki with the emphatic particle *ra, *məjamo looks like a reduced form of *məki jamo). The Inanimate Anaphoric might have the particle *ra occurring on the third-person possessive prefix *i-. The deictic forms show an opposition between Proximal *(c)e forms and Distal *mA forms.
on verbs), termed 'O set', and a more restricted one, found only with verbs, termed 'A set'. The O set is shown in table 34, and exemplified with paradigms (which should be considered solely as an illustrative device, since not all forms of the stem used in them are attested in all languages; this is true for all illustrative paradigms in this section).

Table 40.
O Set Prefixes

<table>
<thead>
<tr>
<th></th>
<th>Vowel-Initial Stems</th>
<th>Consonant-Initial Stems</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>*j:-</td>
<td>*V-</td>
</tr>
<tr>
<td>2</td>
<td>*əj-, *aj-, *oj-</td>
<td>*ə-</td>
</tr>
<tr>
<td>3</td>
<td>*Ø-</td>
<td>*i-</td>
</tr>
<tr>
<td>1+2</td>
<td>*k-, *k(ə)-, *k(o)-</td>
<td>*ki-</td>
</tr>
<tr>
<td>3R</td>
<td>*t-, *t(ə)-, *t(o)-</td>
<td>*ti-</td>
</tr>
</tbody>
</table>

(47)  
Postposition: *pəkə 'about/concerning'  
Noun: *enu ‘eye’  
Verb: *arə ‘take’, *Ø-Past

1  *V-pəkə ‘about me’  
2  *ə-pəkə ‘about you’  
1+2  *ki-pəkə ‘about us’  
3  *i-pəkə ‘about him/her/it’  
3R  *ti-pəkə ‘about him/her/itself’

The allomorphs of the 2 prefix were selected according to the initial vowel of the stem: *aj- occurred on a-initial stems, *əj- on o-initial stems, *aj- on other vowel-initial stems. The 1+2 prefix *k- and the 3R prefix *t- had the effect of changing certain initial vowels: *e or *a into *ə on *e-initial and *aCə-initial stems, and *a into *o on *aCo-initial stems.

Postpositions were either inflected for person with an O set prefix, or accompanied by an overt object; in the latter case, they occur in an uninflected (prefixless) form (e.g.
*pi̱jaci paque ‘about the shaman’). They could also take number morphology, in the form of the suffix -:ne (e.g. *ki-paque:ne ‘about all of us’, *σ-paque:ne ‘about all of you’, *i-paque:ne ‘about all of them’).

Nouns could be possessed or unpossessed. Possessed nouns bore, in addition to the possessor-marking O set prefix, a possessive suffix that indicated their possessed status, and also whether this status was valid at the moment of speaking (‘Present Possession’, marked by the suffixes *-ri and *-∅, which defined two lexical classes of nouns; e.g. *σ-pana-ri ‘your ear’, *i-πi-∅ ‘his wife’), or had already ceased (‘Past Possession’, equivalent to English ex- in e.g. ex-husband; indicated by the suffix *-hp∅, as in e.g. *ki-pakoro-hp∅ ‘our ex-house’).

Nouns were also sensitive to number (the collective vs. non-collective opposition). This was indicated by the elements (probably independent particles) *tomo, which indicated the collective status of the noun to which it attached (e.g. *pakoro tomo ‘houses’), and *komo, which attached to possessed nouns to collectivize the possessor, causing also the optional reduction of the possessive suffix *-ri, in case it occurred, to *h (e.g. *σ-pakoro-ri komo ~ *σ-pakoro-h komo ‘your [=y’all’s] house’).

Verbs could be distinguished by their tense-aspect-modality-number inflections. They fell neatly into two groups, transitive and intransitive verbs. Transitive verbs could take A and O prefixes, according to a two-level person hierarchy: a non-third person was always marked on the verb, by an A prefix if it happened to be the subject (and the object was a third person), or by an O prefix if it happened to be the object (and the subject was
a third person. When both participants were non-third persons, a special prefix \( *k(i) \)^2 was used; when both participants were third persons, the verb bore no prefix if the object was overt and immediately preverbal; if the object was not immediately preverbal, the verb had a special prefix \( *n(i) \). Gildea 1998 (Sec. 5.2.1) calls the A and O set prefixes direct and inverse, respectively. All prefixes are listed in the following table; the conjugation of the verb stem \( *\text{eceka} \) ‘to bite’, in its Immediate Past (\( \emptyset \)-marked) form illustrates their use.

<table>
<thead>
<tr>
<th>A set (direct) C-initial</th>
<th>V-initial</th>
<th>O set (inverse) C-initial</th>
<th>V-initial</th>
<th>Only 3rd-Person C-initial</th>
<th>V-initial</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>*i-</td>
<td>*(-)</td>
<td>*v-</td>
<td>*j-</td>
<td>*(-)</td>
</tr>
<tr>
<td>2</td>
<td>*mi-</td>
<td>*m-</td>
<td>*(\emptyset)-</td>
<td>*aj- (*a(j)-, *o(j)-)</td>
<td>*ni-</td>
</tr>
<tr>
<td>1+2</td>
<td>*kici-</td>
<td>*\text{ki-} (_\text{e} _)</td>
<td>*ki-</td>
<td>*k((\emptyset), o)-</td>
<td>*(-)</td>
</tr>
<tr>
<td></td>
<td>*kit-</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(48)

\*\(\emptyset\)-\text{eceka-\(\emptyset\)} ‘I bit him/her/it’
\*m-\text{eceka-\(\emptyset\)} ‘you bit him/her/it’
\*kic-\text{eceka-\(\emptyset\)} ‘we bit him/her/it’
\*j-e:\text{eceka-\(\emptyset\)} ‘s/he bit me’
\*aj-e:\text{eceka-\(\emptyset\)} ‘s/he bit you’
\*k-\text{aceka-\(\emptyset\)} ‘s/he bit us’;
‘I bit you’, ‘you bit me’
\*n-\text{eceka-\(\emptyset\)},
\*NP \(\emptyset\)-\text{eceka-\(\emptyset\)}
‘s/he bit him/her/it’,
‘s/he bit NP’

At some point between Proto-Cariban and the modern Taranoan languages, there was a stage at which intransitive verbs fell into two categories: the A group and the O group. Verbs of the A group took the A set prefixes as subject markers (except for first person); verbs of the O group took O set prefixes as subject markers; both groups took

\(^2\) This prefix is identical in form and allomorphic patterns to the 1+2 O prefix \( *k- \). As was mentioned before, it is an interesting question whether or not both should be analyzed as the same prefix, with a general meaning of ‘both first and second persons are involved, and at least one of them is a patient’, or as different prefixes.
*n(i)*- as a third-person marker. A few irregular verbs (‘to go’, ‘to say’, ‘to come’, etc.) took *w(i)*- to mark first person; the majority of the A verbs, however, marked the first person with one of two prefixes: *c- (e-initial stems) or *t- (ɔ-initial stems). The following three roots, *ko:mami ‘to stay out till nightfall’ (O group), (ɔ/o):niki ‘to sleep’, and *epi ‘to bathe’ (A group), are conjugated below as examples.

(49)

<table>
<thead>
<tr>
<th></th>
<th>*V-ko:mami</th>
<th>*c-epi</th>
<th>*t-(ɔ/o):niki</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>*ɔ-ko:mami</td>
<td>*m-epi</td>
<td>*m-(ɔ/o):niki</td>
</tr>
<tr>
<td>2</td>
<td>*ki-ko:mami</td>
<td>*kic-epi</td>
<td>*kit-(ɔ/o):niki</td>
</tr>
<tr>
<td>3</td>
<td>*ni-ko:mami</td>
<td>*n-epi</td>
<td>*n-(ɔ/o):niki</td>
</tr>
</tbody>
</table>

However, the evolution of first-person markers on intransitive verbs points to some intermediate chaotic state, in which some intransitive verbs had a first-person *w-* (originally, in Proto-Cariban, all the A-conjugation verbs were in this group) while *t- and *s-* were spreading, probably coming from an earlier first-person A marker on transitive verbs (cf. 6.5.1.2). The situation illustrated above, with *c-* on e-initial verbs and *t-* on ɔ-initial ones, must have arisen at the end of the ‘chaotic’ period, but it is not clear whether this was at Proto-Taranoan times, or at some posterior stage.

The Tense-Aspect-Modality and Number-Evidentiality morphology on verbs occurred as suffixes (cf. the schema at the beginning of 6.5.2); their co-occurrences are listed in the table below, and exemplified with second-person forms of two transitive stems: the non-reducing *ene ‘to see’, and the reducing *ene[pi] ‘to bring’.
Table 42.
Tense-Aspect-Modality and Number-Evidentiality morphology

<table>
<thead>
<tr>
<th></th>
<th>Non-Collective</th>
<th>Collective</th>
</tr>
</thead>
<tbody>
<tr>
<td>Present</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Certainty (Reducing stems)</td>
<td>*-ja-e</td>
<td>*-ja-tə-i</td>
</tr>
<tr>
<td>Doubt (Reducing stems)</td>
<td>*-ja-nə</td>
<td></td>
</tr>
<tr>
<td>Certainty (Non-reducing stems)</td>
<td>*-(::)-e</td>
<td>*-(::)-tə-i</td>
</tr>
<tr>
<td>Doubt (Non-reducing stems)</td>
<td>*-(::)-nə</td>
<td></td>
</tr>
<tr>
<td>Future</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Certainty</td>
<td>*-tə-e</td>
<td>*ta-hkə-i</td>
</tr>
<tr>
<td>Doubt</td>
<td>*-tə-ne</td>
<td></td>
</tr>
<tr>
<td>Past</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Immediate</td>
<td>*-Ø</td>
<td>*-tə-wi</td>
</tr>
<tr>
<td>Distant</td>
<td>*-ne</td>
<td>*-tə-ne</td>
</tr>
</tbody>
</table>

(50)

Reducing Stem: *ene[pɨ] 'to bring'
Non-Reducing Stem: *ene 'to see'

Pres. C.  *m-enep-ja-e  *m-enep-ja-tə-i  *m-ene-::-e  *m-ene-::-tə-i
D.   *m-enep-ja-nə       *m-ene-::-nə

Fut. C.  *m-eneh-τa-e  *m-eneh-τa-hkə-i  *m-ene-ta-e  *m-ene-ta-hkə-i
D.   *m-eneh-ta-ne      *m-ene-ta-ne

Past Im.
Pres. C.  *m-enepi-Ø  *m-eneh-ta-wi  *m-ene-Ø  *m-ene-ta-wi
D.   *m-ene-::-ne      *m-eneh-ta-ne  *m-ene-::-ne  *m-ene-ta-ne

The collective suffixes obeyed the same two-level hierarchy that was described for the A and O prefixes in the selection of the participant to which they referred. On a transitive verb, they collectivized a non-third person if there was any, or the object if both participants were third persons. On an intransitive verb, they collectivized only non-third persons. To collectivize a third person, a special collective particle *toto was used.
(51) Transitive *ene ‘see’

*mena-ta-wi
2A-see-Col-I.Pst
‘You all have seen him/her/it.’

*ene-ta-wi
2O-see-Col-I.Pst
‘S/he has seen you all.’

*n-ene-ta-wi
3AO-see-Col-I.Pst
‘S/he saw them all.’

*n-ene-wi toto3
3AO-see-I.Pst Col
‘They all saw him/her/it.’

Intransitive *ko:mami ‘spend the night, stay out till nightfall’

*eka:man-ta-wi
2O-spend.night-Col-I.Pst
‘You all have spent the night.’

*n-ko:mami-wi toto
3AO-spend.night-I.Pst Col
‘They all spent the night.’

The Imperative was formed with a suffix *-kə. Transitive verbs took different prefixes (*k(a,o)-, *-∅-) to indicate whether the object was first or third person, respectively. A-conjugation intransitives took no prefixes in addition to the Imperative suffix *-kə. O-conjugation ones had an additional prefix *a(j)-.

(52) Transitive A-Intransitive O-Intransitive
*ene ‘see’ *(a/o):niki ‘sleep’ *ko:mami ‘stay out till night’

*k-ene-kə ‘see me!’ *(a/o):nih-kə ‘sleep!’ *a-ko:man-kə ‘stay out till night!’

*ene-kə ‘see it!’

There were two less finite forms based on the *-ce form of the stem: the Supine, which had no additional mark, and the Participial, which had an additional *t- prefix with three allomorphs: *(a,o)- with transitives and O-conjugation intransitives, *(a,o)- with e-

3 It may have been the case in Proto-Taranoan, as it is in some modern non-Taranoan languages (e.g. Kaxuyana), that the immediate past marker -wi reduced (possibly to ∅) if certain particles followed.
initial A-conjugation intransitives, and *tīv- with ə-initial A-conjugation intransitives. The
Supine was used with motion verbs to express purpose:

(53) *wi-tamī (ə/o):nīh-ce
l-go  sleep-CE
‘I am going (there) in order to sleep.’

The participial may have had the meaning of ‘good for, serving for’:

(54) *t-ani(h)-ce nai
T-drink-CE 3:Cop
‘(It) is for drinking’, ‘let’s drink’

There was also a negative form, probably in *-pira:

(55) *(ə/o):niki-pira nai
sleep- Neg 3:Cop
‘S/he does not sleep’.

The remaining classes, adverbs and particles, had no inflectional morphology.
Adverbs, however, could still be nominalized; particles, on the other hand, had only one
form, without any morphological possibilities.

7.2. Diachronic change in Taranoan morphology.

The changes that occurred after the end of Proto-Taranoan times were relatively
small (with the exception of the loss of the intransitive two-conjugation system in
Karihona). The Pronoun system remained the same after the end of theProto-Taranoan
period; the only changes were in the phonological shapes of the pronouns. The Tense-
Aspect-Modality system also remained the same. There were a few slight changes in the Number-Evidential system. More important changes occurred in the Person-Marking system.

7.2.1. The evolution of Karihona morphology. Karihona consistently added a syllable rə / ro (from the particle rə ‘really’) to must pronouns, excepting the first persons əwɨ, əfa and some of the third-person forms. Tense-Aspect-Modality and Number-Evidentiality systems were apparently preserved without structural changes. In the Person-Marking system, however, the following changes have taken place (not necessarily in the order given):

O set (cf. 6.2):

1. Extension of first-person *j- (in the form of ji-) from vowel-initial to some (but not all) sonorant-initial stems.
2. Appearance of a voicing alternation to mark first person on stop- or h-initial stems as a result of the loss of a previous first-person prefix (possibly a remnant of Proto-Cariban *u, or maybe a reflex of the innovative ji- mentioned in 1.).
3. Creation of a new second-person prefix əji- (perhaps in analogy to the first-person ji-), used with consonant-initial stems.
4. Loss of the stem-initial ãe, ãa and ola alternations induced by the 1+2 and 3R prefixes *k- and *ɾ-.
A set (cf. 6.5.1.1):

1. The vowel of the second and third person prefixes *mi- and *ni-, used with consonant-initial stems, changed idiosyncratically to *i.

2. Two 1+2 allomorphs, *kic- and *kii-, merged as kis-.

Distribution of the sets:

1. Merging of the two intransitive verb conjugations (originally based on the O and A sets) into one, according to Fig. 10 (repeated from 6.5.1.2, Fig. 5):

   **Figure 10**
   The merging of the O and A conjugations in Karihona

   PT                      Karihona
   O set  *V:-/*j:-        Ø (+voice)- / jì-
          *a-/*a:i-       m-/mì-
          *ki-/*k(a,o)-   kìse, kisi- / kì-
          *ni-/*n-       n-/ni-
   A set  *mìi-/*m-         Ø
          *kici-/*kis-, *kii-  Ø (+voice)- / jì-
          *ni-/*n-         m-/mì-

   2. Loss of the 2 prefix *a- on intransitive verbs in the Imperative (i.e. extension of prefixless Imperatives from the A to the O conjugation as part of the merging process; cf. 6.5.3).
3. Loss of the allomorph *tʰw-, occurring on A-conjugation a-initial intransitive verbs, of the markers of the participial form (cf. 6.5.4.2)

7.2.2. The evolution of Tiriyó-Akuriyó morphology. Akuriyó shares no morphological changes with Karihona. With Tiriyó, on the other hand, Akuriyó shares the following innovations (not necessarily in this order):

A1. Change of the Collective forms of the 2 and 1+2 pronouns, from PT*ənjamo and *kɪnjamo to *ənənjamo and *kimənjamo, via the reinterpretation of a the original forms as having a suffix *-njamo (cf. 6.1.1);

A2. The extension of the Proto-Cariban first-person marker *t- to the A-conjugation of intransitive verbs; the palatalization that generated the *c-/s- had probably already happened; (cf. 6.5.1.2)

A3. The further evolution of the meaning of the supine marker *-ce to habitual past (cf. 6.5.4.1);

A4. The evolution of the participial *t-V-ce to a narrative/distant past form (cf. 6.5.4.2);

A5. The evolution of *-ce wa: from a marked negation to a simple one (cf. 6.5.4.3).

Akuriyó can be considered the most conservative language morphologically. Aside from the above, only the following minor changes occurred (not necessarily in this order):

B1. The unexplained appearance of a k- first-person marker in the A conjugation of instransitive verbs, replacing an earlier t- (cf. 6.5.1.2);
B2. The hardening of the Present marker *ja to -ca with non-pV, non-nasal stem-final reducing syllables (cf. 6.5.2);

B3. The change of the Immediate Past suffix in the Collective form: *-tə-wi > -tə-u (cf. 6.5.2);

B4. The apparently idiosyncratic evolution of the vowel of the Future Collective marker *hkə > :ki (cf. 6.5.2).

Morphological changes that distinguish Tiriyó (not necessarily in this order):

C1. The analogic extension of the first vowel a of the interrogative a:ño to all the other interrogatives (cf. 6.1.3);

C2. The extension of the first-person marker j- from vowel-initial to consonant-initial stems (in the form ji-) (cf. 6.2);

C3. Ongoing loss of the possessive suffix -ri, with concomitant development of a new possessive construction N i-N instead of the old N N-ri (cf. 6.3.1);

C4. Extension of what seems to have been the old Proto-Carib A-conjugation first-person marker w- to the transitive verbs (cf. 6.5.1.2);

C5. Complete loss of the Immediate Past suffix *-wi > -∅ (cf. 6.5.2);

C6. Coalescence of the verbal collective markers *-tə and *-hkə with what seems to be the final Certainty evidential marker *-i: *-tə-i > -ti:, *-hkə-i > -hki: (cf. 6.5.2);

C7. Extension of the Present Collective suffix -ti: (< *-tə-i) to the Immediate Past (cf. 6.5.2).
C2 and A2 cannot have occurred in sequence, so it is hard to say that e.g. A2, which is 'shared' by Tiriyó and Akuriyó, preceded C2 (cf. 6.5.1.2). Instead of saying that Tiriyó and Akuriyó share A2, it may be better to say that A2 and C2 were ongoing simultaneously. At Proto-Tiriyó-Akuriyó times, they had both affected some subset of stems; after that, Tiriyó and Akuriyó concluded the evolution separately, each finding a different solution. Thus, out of a possibly relatively chaotic Proto-Akuriyó-Tiriyó situation came the relatively orderly Tiriyó and Akuriyó situations.

Together with the phonological innovations described in Chap. 5, the morphological evidence points towards the following subclassification of Taranoan languages (basically confirming Kaufman 1994):

```
  Proto-Taranoan
     /      \
   /        \
Tiriyó  Akuriyó
     \      \ 
      \    /  
       \  /   
        Karihona
```

It is interesting to notice *en passant* that the *Stammbaum* model, in spite of all its well-criticized imperfection, is not a bad representation of the historical evolution of Proto-Taranoan. This is certainly not always the case (cf. e.g. Lamb 1990 for the complexities involved in the internal classification of Uto-Aztecan), and all criticism which has been directed at the *Stammbaum* model is certainly justified. However, it can be an acceptably good approximation, given the necessary historical conditions of evolution without influence from sister languages. In the Taranoan case, the apparently abrupt separation of the Karihona from the other groups seems to have provided exactly these conditions.
Chapter 8

Some Remarks on Taranoan History

The linguistic evidence for the Taranoan languages as an independent group which has been presented in the present work seems overwhelmingly conclusive. The differences between them are relatively small and point to a shallow time depth. In order to evaluate this time depth, a glottochronological estimation was carried out, using Swadesh’s 100-word list (from Samarin 1967:221), with the following modifications: the words for ‘swim’, ‘fly’, ‘hair’, ‘seed’, ‘bark’, ‘fingernail’, ‘full’, ‘round’, ‘cold’, ‘green’, ‘lie’, ‘sit’ and ‘stand’, which are not independent lexical items (e.g. ‘swim’ is ‘go in water’, ‘hair’ is the same word as ‘head’, etc.), were replaced by the following words, taken from Swadesh’s 200-word list: ‘there’, ‘snake’, ‘fall’, ‘lake’, ‘swell’, ‘wind’, ‘wife’, ‘child’, ‘father’, ‘mother’, ‘heavy’, ‘when?’, and by an additional pronoun, ‘we 1+3’, so as to keep the total of 100 words. Since several of Swadesh’s words are missing in the available Akuriyó corpus, only Tiriyo and Karihona will be compared. Given the subclassification proposed in the preceding section, in which Karihona and Tiriyo are the two extremes, this should be sufficient to estimate the time depth of the whole subgroup. The items that were compared are listed in Table 43.¹

¹ The principles of lexicostatistics are highly controversial. Many scholars dismiss it as a rather useless methodology, arguing e.g. that different languages change at different rates, so that the assumption of a constant rate of ‘cognate decay’ is simply wrong (cf. e.g. Blust’s 1991:100ff and Grace’s 1991 criticisms of Dyen’s 1965 lexicostatistical subgrouping of Austronesian languages; cf. also Embleton 1986:50ff for a review of the most important criticisms). Many of the arguments presented against lexicostatistics and glottochronology are quite strong and deserve full consideration. Concerning this debate, the present study takes no position. One of its aims is, however, to include as much information as possible on a poorly documented Cariban subgroup; thus, a glottochronological analysis has been carried out and its results have been included here. The readers may judge it as they please.
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<th>Word</th>
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**TOTAL:** $x = 14$ $? = x = 8$ $! = 78$
Of the 100 pairs, 14 are non-cognate, 8 are possibly or partially cognate, and 78 are fully cognate. The number of retentions is thus at least 78, and at most 78+8 = 86. The following equation (cf. Embleton 1992:133) is used to evaluate the time depth (\(\Delta t = \text{time depth in millennia}, R = \text{morpheme loss (decay) rate, approximately } 14\% = .14; c = \text{number of shared cognates}; N = \text{number of words in the list } = 100\)):

\[
\Delta t = -(1/2R) \ln(c/N)
\]

If the doubtful cases are counted as cognate, then \(c = 78 + 8 = 86\), and the formula yields \(\Delta t = .5 \text{ millennia } = 500 \text{ years}\). If the doubtful cases are counted as non-cognate, \(c = 78\), and \(\Delta t = .88 \text{ millennia } = 900 \text{ years}\). Thus, this method places the split between Karihona and Tiriyó-Akuriyó somewhere between 500 and 900 years ago.

This calculation agrees nicely with Friel's 1961 timetable for the history of the Tiriyó, based on archaeological findings. According to him, Tiriyó ethnogenesis should be placed in the 16th-17th centuries, i.e. 300-400 years ago. He also claims that the modern Tiriyó result from the merging of various separate populations, with very closely related cultures and languages (presumably leaving as a reflex the numerous subgroup names still found among them [cf. Friel 1957, 1961]). Since the other Cariban groups in the area speak languages that are markedly different from Taranoan, the degree of proximity that Friel postulates implies that these Pre-Tiriyó groups did not include any non-Taranoan members; they must all have been descendants of Proto-Taranoan speakers. Based on this idea, the following historical development may be put forth as a working hypothesis:

1. Proto-Taranoan speakers arrive at the Central and Southern Surinam area, some six or seven centuries ago. They may have separated off from a larger Pre-Karinya-
Taranoan group closer to the coast, where the Karinya live now (in case the hypothesis of a closer relationship between Karinya and Taranaon is correct), and followed the course of the Corantijn river (Schumann's 18th-century *Arowakisches Wörterbuch*, cited in De Goeje 1943:340, mentions a group of Pianakóte on the upper Corantijn, who are identified by Friel 1964 as ancestors of the modern Tiriyó).

2. The original group splits, giving rise to a number of different subgroups that scatter themselves all over the area (from the Corantijn / Sipaliwini to the Tapanahoni / East Paru area).

3. After some time, contacts between the groups become more intense. Conflicts between them (and also with other local indigenous tribes) lead certain groups (among whom the Pre-Akuriyó and Pre-Karihona) to isolate themselves from the others. The linguistic similarities between Tiriyó and Akuriyó suggest that the Pre-Karihona went first.

4. The remaining groups converge, forming the Tiriyó. Knowledge of some of the isolated or 'wild' groups (e.g. the Akuriyó, mentioned by Friel 1957, 1960, but not the Karihona) remains alive.

5. The isolated Pre-Akuriyó in the Oelemari area become the modern Akuriyó. The Pre-Karihona, for unknown reasons, migrate to Colombia, where they become the Karihona. Note that one of their subgroups still has the name Hianakoto (Koch-Grünberg 1908, Schindler 1977), obviously cognate with Pianakoto, the name given by the Tiriyó to their ancestors (Friel 1964). This suggests that at least some of the Pre-Karihona were also Pianakotos, and that their separation and migration took place before the word Pianakoto acquired derogatory implications (Friel 1964) and was replaced as an autodenomination by *tirío* and *taranó*.
Chapter 9

Preliminary Taranoan Etymological Dictionary


This section contains all Taranoan cognate sets found thus far in the available data. Every set is identified by a number and a reconstructed gloss (in capitals), followed by the reconstructed proto-stem and its class. The cognates are presented in three lines, one for every language; cognates from different sources for the same language are shown in the same line. Every cognate is preceded by an abbreviation identifying its source (cf. 1.2).

Symbols in parentheses indicate 'doubtful' elements ('less well-pronounced' sounds, optional elements, or elements whose presence in reconstructions is in doubt). Symbols in brackets indicate morphophonologically reducing syllables (cf. 4.2.3). The original gloss is given between single quotes (for the published sources, in the original language: Spanish or French for Kh1, Spanish for Kh2 and Ak3, and German for Kh3). Presumed additional information (not present in the original source) is given in curly brackets ({}). Nouns with two ablaut forms (possessed/non-possessed) have both forms reconstructed and separated by commas whenever possible.

For possessible stems, a possessed (generally third person) and an unpossessed form are given whenever attested. Affixes are segmented with hyphens. Doubtful affixes are segmented with hyphens in parentheses. The word class is indicated in parentheses (A = Adverb, N = Noun, Pp = Postposition, Ptc = Particle, V = Verb). Many of the Kh1 verbs were listed as verb stems in the original source, without full word examples; they are listed here as such.
1. ABOUT  Tir  i-pa  ‘about him/her/it’, i-pa:ka:-ne  ‘about them’  
  *pa:ka (Pp)  Ak2  pa:ka  ‘about’, i-pa?  a?e  ‘I am doing this’  
   Kh1  ha:ka  {progressive, used with verb stems}  

2. ACAÍ  Tir  wapu  ‘acai’  
  *wapu (N)  Ak2  wapu  ‘acai’  
   Kh3  wahú  ‘Assai-Palme’  

3. ACOUCHY  Tir  pai  ‘tapir’; cf. also pa:sinore  ‘cotiara’.
  *paci (N)  Ak2  pa:ti  ‘cotiara’  {pa:ti translates Tir. pa:sinore}  
   {Tir pai appears to have undergone a surprising semantic shift.}  

4. AFTERNOON  Tir  kokonje  ‘afternoon’
  *kokonje (A)  Kh3  kokónje-nédʒi  ‘Abend’  {Probably, n-édʒi  ‘3-COP’}  

5. AGAIN  Tir  pa  ‘Repetitive’
  *pa (Ptc)  Ak2  pa  ‘Repetitive’
   Kh1  ha  {Repetitive; the original source analyzes /ha/ as part of another particle.}  

6. AGOUTI  Tir  akuri  ‘agouti’
  *akuri (N)  Ak2  akuri  ‘agouti’
   Kh2  akúri  ‘aguti’, Kh3  akúri  ‘Aguti (Dasyprocta Aguti Erxl.)’  

7. ALLIGATOR  Tir  ariwe  ‘alligator’
  *ariwe (N)  Ak2  ariwe  ‘alligator’
   Kh2  aribe-jmi  ‘caimán’, Kh3  ariú  ‘Alligator’
   {The b in Kh2 probably represents [β] as in Spanish.}
   {Akuriyó: maybe /pawana/ instead of /ariwe/.}  

8. ANATTO  Tir  wi:se  ‘urucú’  {Presumably, *wipuce > *wihse > wi:se }
  *(w)i(puce (N)  Ak2  u(ː)ce  ‘urucú’
   Kh2  ihúse  ‘achiote’, Kh3  ihúse  ‘Urucú (Bixa Orellana)’  {/w/-loss in Kh; why?}  

9. ANKLE  Tir  manini  ‘foot wrist’
  *man(j)iCV (N)  Ak3  manini  ‘tobillo’
   Kh3  manjitu:-ru  ‘Fußknöchel’  {[1]}  {No explanation for the Kh3 last syllable /tu/}  

10. ANSWER  Tir  eu[ku]  ‘answer’
  *eu[ku] (V)  Kh3  eu[ku]  ‘contestar’  

11. ANT  Tir  iraká  ‘big ant (tocandeira)’
  *iraká (N)  Ak2  iraká  ‘big ant (tocandeira)’
   Kh3  iráki  ‘Tocandira’
12. ANTEATER
Tir wari-imà 'tamandua'
*(w)ar(i)ci (N)
Ak2 ari?imà 'tamandua'
Kh2 warici 'oso hormiguero', Kh3 waridži, wariri 'kleiner Ameisenbär
(Myrmecophaga tetratactyla')

13. ANUS
Tir pitiki, i-hpitiki 'anus' {No explanation for the /h/ in the Tir possessed form.}
*p(i/u)tiik (N)
Ak1 i-pu'tiki-ri 'anus', Ak2 i-piiitiik(-ri) 'anus'
Kh3 hitiik 'Anus'

14. ARM
Tir apà, apà 'arm'
*apà (N)
Ak1 k-apà:-komo, apà-ri 'arm', Ak2 apa-ri 'arm'
Kh3 ahi-ri 'antebrazo', Kh3 j-ahi-ri 'Oberarm' {1}

15. ARMADILLO
Tir kapai 'armadillo'
*kapa (N)
Ak2 kapà?i 'armadillo'
Kh3 kahâdži 'Riesengürteltier (Dasypus Gigas Cuv.)'

16. ARMPIT
Tir jahta, i-jahta 'armpit'
*(e)jahta (N)
Ak2 j-ejata-ri {1} 'armpit'
Kh3 j-ejata-ri ho:ti 'Achselhaar' {No explanation for the /e/ in Kh3; maybe Tiriyó loss?}

17. ARRIVE
Tir i(-)tunta 'to arrive'
*(i/h)(-)tun (V)
Kh3 n-i(-)tu:ta 'kommen' {3}

18. ARROW
Tir piràu 'arrow (cane)', ji:-re {1} 'arrow'
*[pi]ràu (N)
Ak2 piràu 'arrow cane', pire {1}, i-pire 'arrow'
*[pi]rè (N)
Kh3 hârêu-ari 'Pfeilrohr' (cf. ali 'leaf'); hóu(d)ja, hú(d)ja 'Pfeil'
{The Kh3 word for 'arrow cane' looks cognate, but not the words for arrow.}

19. ASH
Tir a~ren 'smoke' {maybe also 'ash'?}
*(w)a(e)renà (N)
Ak2 a~renà 'smoke; ash'
Kh1 were:na 'ceniza' {Cf. SMOKE, probably a related cognate set.}

20. AT (time)
Tir serà mao 'now' {3InPx at, i.e. 'at this (time)'
*me awà (N)
Ak2 cerà me(?)awa 'now'

21. AX
Tir wiwi, ji:-wi {1} 'ax'
*wìwi (N)
Kh1 wiwi-ri 'hache', Kh2 wiwi 'hacha', Kh3 wàwà 'Beil'

22. BACABA
Tir kumu 'bacaba'
*kumu (N)
Ak2 kumu 'bacaba'
Kh3 kù(;)mu 'Pataú-Palme'

23. BACK
Tir mi'ka, i-nka 'back'
*[mi]ka (N)
Ak3 mèka, i-nka-i jehà 'columna vertebral', Ak2 mi'ka-ri {1} back'
Kh1 i-gà-ri 'espalda' {3}
24. BANANA  Tir  paruru ‘banana’
   *paruru (ru) (N)  Ak2 par-ru-imá ‘banana’
   Kh1 haru-ru ‘el plátano’, Kh2 harú ‘plátano’, Kh3 háru ‘Banane’
   {Why the Tir long /a:/? Is the final /ru/ a reanalyzed possessive suffix?}

25. BASE    Tir.  entu ‘base, foundation, owner’
   *entu (N)  Kh1 edu ‘base du tronc (‘cépa’)’

26. BAT     Tir  nere ‘bat’ {dissimilation}
   *nere (N)  Ak2 rere ‘bat’
   Kh1 rere ‘murciélago’, Kh2 reré ‘murciélago’, Kh3 re(i)re ‘Fledermaus’

27. BATHE   Tir  epi ‘to bathe’
   *epi (V)  Kh3 epi-e ‘baden’ {purpose form? The vowel is probably /a/: cf. Tir epa-e}

28. BE      Tir  ei ‘to be’
   *eci (V)  Ak2 e?i ‘to be’
   Kh1 eci [to be] {The original source analyzes this verb as ‘superate, go over’}.

29. BEARD   Tir  ahpot[t], ehpot[t] ‘beard’
   *atipoti,  Ak1 k-atí:3-ri ‘eti:3-ri ‘beard, hair’
   *etipoti (N)  Kh2 e:tiho, ethóte ‘barba’
   {Probably a compound; the Ak1 cognate seems to have only the first element.}

30. BEAK    Tir  poti, i-poti ‘beak; muzzle; extremity; point’
   *poti (N)  Ak2 i-poti ‘beak’

31. BEE     Tir  arama ‘bee (sp)’
   *arama (N)  Kh2 aramá ‘abeja’

32. BEFORE  Tir  wapo ‘before; ahead of’ {Ptc; Pp}
   *wapo (Ptc; Pp)  Kh1 waho ‘antes’, Kh3 uáho-nai {before-3:Cop} ‘vorwärts’

33. BELLY   Tir  waku, i-waku ‘belly’
   *waku (N)  Ak1 i-wá:3-ru ‘belly’, Ak2 i-waku-ru[j] ‘belly’, Ak3 i-waku ‘barriga’
   Kh1 waku-ru (1) ‘barriga’, Kh2 i-waku-ru ‘vientre, barriga’, Kh3 wakú-ru ‘Bauch’ (1)

34. BIG     Tir  mono ‘big (one)’
   *mono (N)  Ak2 mono me ‘big’
   Kh1 mono ‘grande’, Kh2 monó ‘grande’, Kh3 móno-mi-nai ‘groß’ {big-Attrib-3:Cop}

35. BIRD    Tir  tonoro ‘bird’
   *tonoro /  Ak2 tonoro ‘bird’
   *tonoro (N)  Kh1 tonoro ‘pájaro’, Kh2 toronó ‘pájaro’, Kh3 toróno ‘kleiner Vogel’

36. BITE    Tir  e:ka ‘bite’
   *e:eka (V)  Kh1 j-eseka-ri ‘me mordre’ {1-bite-Psf}
37. BLOOD
	Tir munu, i-munu ‘blood’
	*munju (N) Kh1 muju ‘sangre’, Kh2 múju ‘sangre’, Kh3 múnjú ‘Blut’
	(The Akuriyó word for ‘blood’, /apiro/, seems related to the RED cognate set.)

38. BLOW
	Tir pu:ka ‘to blow’
	*pu(:)ka (V) Kh1 i-huka -ri {3-blow-Psfx} ‘soplar’ {Short or long /u/:?}

39. BODY HAIR
	Tir i-hpoti ‘body hair’
	*poti (N) Ak2 j-enu-ru hpoti {1} ‘eyebrow’, Ak3 enu-potí ‘pestaña’ {eye-hair}
	*cipotí (N) Kh2 i-hoté ‘el pelo del cuerpo’, Kh3 ita-dʒiho:ti ‘Bart’, j-ejata-ri hotí ‘Achsehaar’
	{Kh3: mouth-hair, armpit-hair. The *ci- may be a morpheme or formative.}

40. BONE
	Tir jetipa, i-jetipa ‘bone’
	*jetipa (N) Ak1 i-je?pá-ri ‘bone’, Ak2 je?pá {1} ‘bone’, Ak3 jehpá ‘huesos’
	Kh1 jeriba. Kh2 i-jejiti ‘hueso’, Kh3 i-(d)jéjiti ‘Knochen’
	(The /t/ in Kh1 is unexplained; it looks like a mistranscription.
	OR: It may be /jɛr/ ‘tooth’ with /ba/ ‘Deval’ (cf. Tiriýó -napa/)}

41. BOW
	Tir wirá:pa, ji-:ra:pa {1} ‘bow’
	*[wi]ra(:)pa (N) Ak2 wirá:pa-ri {1}, i-:ra:pa-ri {3} ‘bow’
	Kh2 wiraha, ú:r:ra-ri {1} ‘arco’, Kh3 wiraha ‘Bogen’

42. BRAIN
	Tir pijaku, i-pijaku ‘brain’
	*picaku (N) Kh3 i-hi(d)saku-ru, bisaku-ru {1} ‘Gehirn’

43. BREAK
	Tir :mo ‘break (in two)’ {e.g. /wi:moe/ ‘I am breaking it in two’}
	*:mo (V) Kh1 i-mo-ri ‘hender’

44. BREAST1
	Tir susu, i-susu ‘breast, milk’
	*cucu (N) Ak1 i-su’su-ru ‘breast’, susu ‘leche’, Ak2 cu:cu-ru {1}
	Kh2 susu-ru {1} ‘teta, seno’

45. BREAST2
	Tir manati, i-manati ‘breast, nipple’
	*manati (N) Ak2 ma:na-rí ‘breast’ {1}
	Kh2 manati ‘teta, seno, pecho’, manáti-ri ‘Brustwarze’

46. BRING
	Tir m-enepi ‘you have brought’, m-eneh-tae ‘you will bring’ {m- ‘2sg’, -tae ‘Future’}
	*enepi (V) Ak1 m-enepo ‘to make bring’, Ak2 n-enepi ‘s/he brought’ {m- ‘2sg’, -po ‘Causative’}
	Kh1 enepi[hi] ‘traer’, Kh3 ene-ki ‘bringe!’ {bring-Imperative}

47. BURN
	Tir ni-jatu ‘it has burned’, ni-já:jan ‘it is burning’ {-jan ‘Progressive’}
	*jatu (V) Kh1 ni-jatu ‘arder’ {Final /tu/ probably reduces, but the evidence is missing.}

48. BURY
	Tir ona[mí] ‘to dig, to hide’
	*ona[mí] (V) Kh1 ona[mí] {2} ‘tú enterraste’
49. BY Tir jiomih tae ‘by (=in) my language’
   *tae (Pp) Ak2 k-o:mi:-kon tae ‘by (=in) our language’
   Kh1 womiri tae ‘by (=in) my language’
   [In spatial contexts, this postposition is perlocutive: ‘by the river’, etc.]

50. CANOE Tir kanawa, i-kanawa ‘canoe’
    *kanawa (N) Ak1 i-kanawa-ri ‘canoe’
    Kh2 kanawá ‘canoe’

51. CAPIVARA Tir iwiri ‘capivara’
    *iwiri (N) Ak2 i:wiri ‘capivara’ {Long /i/ unexplained.}
    Kh2 iwiri ‘chigüiro’, Kh3 iwari ‘Capivara’

52. CASHEW Tir oroci ‘cashew’
    *oroci (N) Kh3 oródʒi ‘Acayú’

53. CASSAVA,STONE Tir aripo ‘stone for cooking cassava’
    *aripo (N) Kh1 ariho ‘stone for cooking cassava’

54. CAT Tir miki ‘cat’
    *miki(kč) (N) Kh2 mici ‘gato’, Kh3 míči ‘Katze’
    {This is the only k/c correspondence; maybe these words are not cognate.}

55. CATERPILLAR Tir aruká ‘lagarta’
    *arukə (N) Kh1 arukə ‘gusano’, Kh2 iruki ‘gusano’

56. CHAMELEON Tir iwana ‘chameleon’
    *iwana (N) Ak2 iwana ‘chameleon’
    Kh3 iwána ‘Leguan’

57. CHEST Tir piropi, i:-ropi ‘chest’
    *[p(o)i/ro]pi (N) Ak1 po:ropi-ri {1}, i:-ropi*-ri ‘chest’, Ak2 po:ropi-ri {1}, i:poropi-ri ‘chest’
    Kh2 i-rohi-ri ‘pecho’, Kh3 ji-rohi-ri {1} ‘Brust’
    {The Ak2 3 form, without loss of the first syllable, is unexplained.}

58. CHILD1 Tir mure, murehti (collective?) ‘child’
    *mure, Kh1 mure ‘niño’, Kh2 mure ‘niño’, Kh3 mure ‘Kind’, mirétu(i) ‘kleine Kinder’
    *m(u/i)reht (N)

59. CHILD2/SON Tir muku, i-mmuku ‘child, son’ {Tir: *i-mumuku-ru > i-mmuku}
    *[mu]muku (N) Ak2 mu:muku-ru {1}, i-mmuku-ru {2} ‘child, son’
    Kh3 múgu-ru {1} ‘Sohn’ {Kh: *mumuku-ru > *munku-ru > muku-ru.}

60. CHIN Tir jaramata, i-jaramata ‘chin’
    *jaramata / Ak2 ja’ramata(-ri) {1} ‘chin’, Ak3 jaramata ‘mandíbula’
    *jamarata (N) Kh2 zámaratá-ri ‘mentón’, Kh3 jamaráta-ri ‘Kinn’
61. CLAY  
*ərɪna (N)  
Ak2 ərɪna ‘clay’  
Kh3 ərɪni ‘Töpferton’

62. CLOTHES  
*Tir yi-po {1} ‘clothes’  
*po (N)  
Kh1 i-ho ‘su ropa (de él)’

63. CLOSE/Cover  
*Tir apuru ‘to close, to cover’  
*apuru (V)  
Kh1 ahuru ‘tapar’

64. COAL  
*Tir samarakata ‘coal’  
*camarakata (N)  
Ak2 camarakata ‘coal’  
Kh2 sámarakata ‘carbón’, dzamarakáti ‘Kohle (aufglüh)’

65. COATI  
*Tir seu ‘coati’  
*ceu (N)  
Ak2 seu ‘coati’  
Kh3 tčeu, dcé ‘Cuati, Nasenbär (Nasua spec.)’

66. COATIPURU  
*Tir meri ‘coatipuru, seralepe’  
*meri (N)  
Ak2 meri ‘coatipuru, seralepe’  
Kh3 méri ‘Agutipuru’

67. COMB1  
*Tir ekurima ‘to comb’  
*ekurima (V)  
Kh1 (e)kurima ‘peinarse’

68. COMB2  
*Tir ankai, ənkai ‘comb’, i-jankai {3sg}  
*w(a)nkac(c)ii (N)  
Ak2 wanka(?)i-ri {1sg} ‘comb’ {Unfortunately, no Kh cognate available.}

69. COME  
*Tir æ[pi] ‘to come’; ohka ‘imperative form’  
*(ə)ε[pi]  
Ak2 e[pi] ‘to come’; əkə ‘imperative form’  
Kh1 e[hi] ‘venir’

70. CORN  
*Tir a:nai ‘corn’  
*a:(c)naci (N)  
Kh2 anáci ‘maíz’, anádzi ‘Mais’

71. COTTON  
*Tir maaru ‘cotton’  
*mauru (N)  
Ak2 maaru ‘cotton’  
Kh2 mawru ‘algodón’, Kh3 máuru ‘Baumwolle’

72. CURASSOW  
*Tir o:ko ‘curassow (mutum)’  
*əko (N)  
Ak2 əko, auko ‘curassow (mutum)’  
Kh3 okó-imí ‘Mutum’

73. CUT  
*Tir n-aka, n-akata ‘s/he has cut it’  
*akata (V)  
Kh1 akata-ri ‘his/her cutting’ {The final syllable in Kh1 probably reduces, but this was not attested.}
74. DAUGHTER

Tir ə:mi, e:mi ‘daughter’

*əmci.

Ak1 e?i-ri ‘daughter’, Ak2 j-e?i-ri (1) ‘daughter’

*emci (N)

Kh1 eci ‘hija’, Kh3 j-édʒi:-re, j-édʒi:-ri ‘Tochter’

75. DEER

Tir wikipau ‘deer’

*(wi)kapau (N)

Ak2 wikipau ‘deer’

Kh2 kahao ‘venado’, Kh3 kahau ‘mittelgroßer Hirsch’

76. DEER2

Tir kajakə ‘jungle deer’

*Kajakə (N)

Ak2 kajakə ‘jungle deer’

Kh3 kadja:kí ‘roter, sehr kleiner Hirsch’

{(Even if Kh3 [dj] represents a fricative, this cannot be *c, for it would have resulted in a long vowel in Tiriyo. I presume that the [dj] was an emphatic pronunciation of a [j].)}

77. DEFECATE

Tir oeka / weka ‘to defecate’; k-oeka-e (1-defecate-Prog), ki-weka-e (1+2).

*weka (V)

Kh3 weka-í ‘kacken’ {supine form?}

78. DIRTY

Tir tikuije ‘dirty’

*(t(i/u)kuice (A) Kh1 tukuise ‘sucio’

79. DRESS

Tir ponta ‘to dress’

*po(n/h)ta (V)

Kh1 i-hota ‘vestirse’ {The *-nta verbalizer should be -də in Kh1;

maybe it is the *-hta verbalizer here instead.}

80. DRINK1

Tir ji-joki (1) ‘drink’

*wo(ki (N)

Kh3 woki {drink}

81. DRINK2

Tir eni[ri] ‘to drink’

*eni[ri]

Ak1 eni-topo ‘thing for drinking water’ {drink-Nzr)

Kh3 eni[ri] ‘tomar, beber’

82. EAR

Tir pana, i-pana ‘ear’

*pana (N)

Ak1 i-pa:na-ri ‘ear’, Ak2 i-pana(-ri) ‘ear’, Ak3 pana ‘oreja’

Kh1 hana ‘oreja’, Kh2 i-hana-ri ‘ojoo’, Kh3 hana, baná-ri (1) ‘Ohr’

{The Kh2 words for ‘ear’ and ‘eye’ seem to have been mistakenly switched (cf. EYE).}

83. EARTH

Tir nono ‘earth’

*nono (N)

Kh1 nono ‘tierra’, Kh2 nonó ‘tierra’, Kh3 nóno, nónu ‘Erdboden’

84. EAT.FRUIT

Tir m-enat-jan (2-eat-Prog), m-enati (2-eat-R.Pst) ‘you eat (fruit, sweet things)’

*enapi (V)

Kh1 en[a]hi ‘comer’

85. EAT.MEAT

Tir m-əna (2-eat.meat-R.Pst) ‘you have (just) eaten meat’

*əna (V)

Kh1 t-əna-e-mi ‘carne’ {Azr-eat.meat-Azr-Nzr}
86. EGG
	Tir i:mo ‘egg’
	*pimo.
	Ak2 i:mo ‘egg’, Ak1 pi:mo-ri {1sg}
	*i-(h)mo-ri (N)
	Khl imo ‘huevo’, Kh2 imó ‘huevo’, Kh3 i(h)mu ‘Ei’

87. ELBOW
	Tir aparitiki, aparitiki ‘elbow’
	*parit(t/c)(i)kV (N)
	Ak1 j-apa;reci:2-ri {1} ‘elbow’ (Ak2 j-apari?na(-ri) {1})
	Kh2
	ahirikika-ri ‘codo’, Kh3 j-ahareškete ‘Ellbogen’

[A probable compound of /apari/ ‘branch, wing’ and /tiki/ ‘?’. This
would explain why Ak1 has /c/ instead of /t/ as would be expected.]

88. ENTER
	Tir m-əməmi, m-əmimi {2} ‘you have entered’ {Ongoing assimilation?}
	*mə[mɪ] (V)
	Ak1 m-əmami ‘you have entered’
	Khl əma[mɪ] ‘entrar’

89. EXCREMENT
	Tir wata, i-weti ‘excrement’
	*wata,
	Ak2 wata, (i)weti ‘excrement’, Ak1 i-we:7-ri ‘feces’
	*weti (N)
	Kh3 wati ‘Kot’

90. EXIT
	Tir epataka ‘to exit’
	*epataka (V)
	Khl n-ehatka ‘treten aus’

91. EYE
	Tir ənu, ənu ‘eye’
	*ənu,
	Ak1 k-ənu2-ru, enù2-ru ‘eye’, Ak2 k-ənu-ru, enu-ru ‘eye’
	*enu (N)
	Khl enu-ru ‘ojö’, Kh2 e:nú-ru ‘oreja’, Kh3 j-enú-ru {1} ‘Auge’

{The Kh2 words for ‘eye’ and ‘ear’ seem to have been mistakenly switched (cf. EAR).}

92. FACE
	Tir əmpata, empata ‘face’
	*əmpata,
	Ak2 j-empata-ri {1} ‘face’, Ak3 empata ‘face’
	*empata (N)

93. FALL
	Tir n-anota ‘s/he/it fell’
	*anota (V)
	Ak2 n-anota ‘s/he/it fell’
	Khl n-anota-nə ‘il tombe’, Kh3 anota-ni {fall-?} ‘fallen’

94. FART
	Tir wejadi, i-wejadi ‘fart’
	*wecaki (N)
	Kh3 we(d)sáki ‘Flatus’

95. FAT
	Tir kati, i-kati ‘fat’
	*kati (N)
	Kh1 i-kati ‘grasa’, Kh2 i:-kati ‘grasa’, Kh3 i-kati ‘Fett’

96. FATHER1
	Tir pa. pahko, i-papa ‘father’

{The /-ko/ may be an old honorific.}
	*papa (N)
	Ak2 papa {1, 2} ‘father’
	Kh2 hahá ‘padre’, hāhá ‘Vater, Kinderwort’

97. FATHER2
	Tir jum-me ‘wise, adult’ {father?-Attrib}
	*jumu (N)
	Khl i-jumu ‘padre’, Kh2 i-jomó ‘padre’, Kh3 i-(d)jumů ‘Vater’
98. FEVER/COLD  Tir  kai-ke ‘feverish {fever-with}’
   *kɔci (N)  Kh1  kɔci ‘frío’ {cf. English ‘to have a cold’}

99. FIND  Tir  ep[o]ri ‘to find, to meet’
   *ep[o]ri (V)  Kh1  ep[o]ri ‘encontrar’

100. FINGER NAIL  Tir  omoi,  amoî ‘finger nail’
   *omo(sa)i (?)  Ak1  k-omoî-komo,  amoî-ri ‘f. nail’.  Ak2  j amoî-ri {1}.  Ak3  amoî-ri ‘uñas’
   *amo(sa)i (N)  Kh2  amosai-re.  Kh3  hamosai-ri,  j-amosai-ri {1} ‘Fingernagel’

101. FIRE  Tir  mahto ‘fire’
   *mapoto (N)  Ak2  ma:to ‘fire’
   Kh1  mahto ‘fuego’,  Kh2  mahotó ‘fuego’,  Kh3  mahóto ‘Feuer’

102. FISHHOOK  Tir  keweî ‘fishhook’
   *kweï (N)  Kh3  kweî ‘Angel, Angelhaken’

103. FLEA  Tir  sikɔ ‘flea, bicho do pé’
   *cikɔ (N)  Ak2  cikɔ ‘flea, bicho do pé’
   Kh2  cicî ‘nigua, pique’.  Kh3  dfîkî ‘Sandfloh’

104. FLESH  Tir  pun[u], i-pun[u] ‘flesh’
   *punu (N)  Ak2  pu:nu {1} ‘flesh’ {Accepted by one informant, refused by another}
   Kh1  hunu ‘pie’ {?!},  Kh3  bu:nû {1} ‘Fleisch’

105. FLY  Tir  werewere ‘small fly’
   *werewere (N)  Ak2  werewere ‘mosquito sp’
   Kh2  wewéwe ‘mosca’

106. FOAM  Tir  aaro ‘foam’
   *aka:ro (N)  Ak2  akiro ‘foam’
   Kh1  kahu-ako ‘nube’ {cloud; presumably ‘sky-foam’}

107. FOOD  Tir  a:repa, erepa ‘food (manioc)’
   *a:repa,  Ak2  erepa ‘food’
   *a:repa (N)  Kh1  areha, ereha ‘nourriture’

108. FOOT  Tir  pu:pu,  i-hpu ‘foot’
   *pu:pu (N)  Ak1  pu:pu-ru,  i-pu:pu-ru ‘foot’
   Kh2  hûhu ‘pie’.  Kh3  buhu-ru {1} ‘Fuß’

109. FOREST  Tir  itu(h) tao ‘in the jungle, forest’
   *itu(h) (N)  Ak2  itu(h) tawô ‘in the jungle, forest’
   Kh1  itu ‘forêt’, ‘bosque’.  Kh2  itu ‘monte / bush’.  Kh3  itu ‘Wald’
110. FRUIT  
Tir  eperu ‘fruit’
*eperu (N)  Ak2 wewe epiri ‘tree fruit’
Kh1  eheru ‘fruito’. Kh2 ehenú ‘fruta’

111. GIVE  
Tir  ekarama ‘to give’
*ekarama (V)  Kh1 ekarama -ri {give-Psfx} ‘to give’. Kh3 ekaramá-ki ‘gib!’ {give-Imperative}

112. GO  
Tir  ta[mi] ‘to go’  {The /ia/ in Kh3 is probably a transcription error.}
*ta[mi] (V)  Ak2  ta[mi] ‘to go’
Kh1 wi-ta-e {1} ‘voy’, Kh2 wi tá-i {1} ‘andar’, Kh3 dama {1}, tiami ‘gehen’

113. GO.GET  
Tir  m-iwa-n ‘you are looking for him/her/it’ {2-go.get-Pres.Evid}
*iwa (V)  Ak1 m-iwa7-ni ‘buscar’ {2-go.get-Pres.Evid}
Kh1 (i)wa ‘chercher’

114. GOOD  
Tir  kure, kurano {nominalized form} ‘good, pretty’
*kure (A),  Ak2 kure ‘good, pretty’
*kurano (N)  Kh2 kuré, kuráno ‘bueno’, Kh1 kurano ‘bueno’, Kh3 kúre ‘gut’

115. GOURD  
Tir  kariwa ‘gourd’
*kariwa (N)  Kh3 kariwa-imi ‘Trinkkalebasse’

116. GRANDCHILD  
Tir  pari, i-pa, i-pan-kon ‘grandchild(ren)’
*pa(n) (N)  Ak1  pa-ri {1} ‘my grandchild’
Kh3  ba:ri {1}, i-ha:ri ‘Neffe’

117. GRANDFATHER  
Tir  tamo, i-tamu, tamusimpa ‘grandfather’
*tamo(ko),  Ak2 tamoko ‘grandfather’
*tamu (N)  Kh1 tamu ‘viejo’. Kh3 tiamu ‘Großvater’
   {Tir. /tamo/ = /tamu/ + /ko/? Cf. also /tamokompa/ ‘coatá monkey’; maybe ‘old man’?}

118. GRANDMOTHER  
Tir  no:si, no:simpá, kuku {1}, i-no[t]? ‘grandmother’
*kuku (N)  Ak2  kukuni ‘grandmother’, a-kukuni {2}
Kh1  kuku ‘grand-mère’, Kh3 kuku ‘Großmutter’

119. GRATE  
Tir  ki ‘to grate (cassava)’
*ki (V)  Kh1 i-ki-ri {3-grate-Psfx} ‘jalar’

120. GROIN  
Tir  mone, i-mone ‘groin; womb?’
*mone (N)  Ak3  i-mone ‘ombligo’

121. GROW  
Tir  j-anihta-ne ‘I grew’ {1-grow-D.Pst}
*anihta (V)  Ak1 j-ani37a-ne ‘I grew’ {1-grow-D.Pst}
Kh1 anita ‘crecer’
122. HAMMOCK
  (Tir. ehke[t]i ‘hammock’ looks at best only partially cognate)
  *etati (N)
  Ak2 etati ‘hammock’
  Kh3 atati-ho {hammock-Loc} ‘in der Hängematte’ {Assimilation? Non-poss. form?}

123. HAND
  Tir ānja, ēnja ‘hand’
  *ānja, Ak3 ēnja-ri ‘mano’, Ak2 j-ēnja-ri {1} ‘palm of the hand’
  *ēnja (N)
  Kh1 ānā ‘mano’, Kh2 ēnāri ‘mano’, Kh3 j-ēnja-ri {1} ‘Hand’

124. HARD
  Tir akipā ‘hard’
  *akipā (A)
  Kh3 akihii ‘hart’

125. HAWK
  Tir pijana ‘hawk’
  *pijana (N)
  Ak2 pi?ana ‘hawk’ {Accepted by one informant and refused by another.}
  Kh3 hîana ‘sehr großer Geier (Harpia ferox?)’

126. HEAD
  Tir putupa, i-putupa ‘head’
  *putupa (N)
  Ak1 pū:pā-ri {1}, i-pū:pā-ri, Ak2 ə-pu:pə {2} ‘head’ Ak3 i-pu:hə ‘cabellos’
  Kh1 hutu:hə ‘cabeza’, Kh2 i-hutu:hə, hûtu ‘head’, Kh3 hutuhi, bûtuhi {1} ‘Kopf’
  {The Kh2 /hutu/ suggests -/pu/ as an old suffix instead of -tupa. An error?}

127. HEAR
  Tir eta ‘to hear’
  *eta (V)
  Kh1 eta -takə ‘oigan’, Kh2 eta-ɛ ‘ofr’ {purpose}, Kh3 etâ-ki ‘hör!’ {hear-Imperative}

128. HEART
  Tir əwani, əwani ‘heart’
  *əwani, Ak1 (ə)wa:ˈne-ri, ewa:ˈne-ri ‘heart’, Ak2 j-e(ː)wənə ‘heart’. Ak3 ewane ‘corazón’
  *əwani (N)

129. HEAVY
  Tir amiimakə [ka] ‘heavy’
  *am(ə)cimcaka (A)
  Ak2 ami:jaka ‘heavy’
  Kh1 amɔ:isaka ‘pesado’

130. HERE
  Tir tarano ‘Tiriyō’ {etym. /tar-wo/ {here-Nzr} ‘someone from here’}
  *t(a/a)ra (A)
  Kh1 tɔra ‘ici’

131. HERON1
  Tir wara ‘heron (garça)’
  *wara (N)
  Ak2 wara ‘heron (garça)’
  Kh3 wará ‘weißer Reiher’

132. HERON2
  Tir onore ‘heron (socó)’
  *(ə/o)nore (N)
  Ak2 onore ‘heron’
  Kh3 onôre ‘Socó’
  {Ak2: the main consultant’s name is Onore...}

133. HIGH
  Tir kawə ‘high, tall’
  *kawə (A)
  Kh3 káui-nai {high-3:Cop} ‘hoch’
134. HIP  Tir  akun,  ekun ‘hip’ {There probably is a final reducing vowel [u].}
  *akunu,  Ak1 k-akun-komo, ekun tu ‘hip’, Ak2 j-ekunu {1}, Ak3 eku ‘vien tre (bajo)’
  *ekunu (N)

135. HITHER  Tir  sarə ‘hither’
  *carə (A)  Kh3 tčā:ri, dčā:ri ‘hier, hierher’

136. HOLE  Tir  o:ta ‘hole’
  *ota,  Ak2 ota ‘hole’, j-ota-ri {1}
  *eota (N)  Kh1 ota-ri ‘hueco’, Kh2 otá-ri ‘puerta’, Kh3 otá-ri ‘Loch’

137. HORN  Tir  reti, i-reti ‘horn, top (crown) of head’
  *reti (N)  Kh2 i-reti-hi sohé ‘corona’ {-hi ‘Pst’?}

138. HOUSE1  Tir  pakoro, i-pakoro ‘house’
  *pakoro (N)  Ak1 pa(ː)ko ‘house’, Ak2 pakoro, pata ‘house’
  Kh1 hakoro ‘rancho’, Kh3 hakóro ‘Barracke zum Schlafen’
  {The meaning of Kh3 /hakóro/ looks like that of Tiriýô /minnα/; a meaning switch?}

139. HOUSE2  Tir  minnα, ji-min {1} ‘shelter (for hunting), tocaia’
  *minnα (N)  Ak2 minna, i-minna-ri ‘kind of house’
  Kh1 ji-mini-ri, ji-mina-ri {1} ‘casa’, Kh3 man ‘Haus, Dorf’

140. HOW  Tir  eeke ‘how, what’
  *ække (Intrg)  Ak2 ække ‘how, what’

141. HOW.MANY  Tir  ahta:rə
  *(a/i)hta:rə (Intrg)  Kh3 i(x)tā:ri

142. HUMMINGBIRD  Tir  tukui ‘hummingbird’
  *tukucí (N)  Ak2 tuku?i ‘hummingbird’
  Kh2 tukucí, Kh3 tukudʒi ‘Kolibri’

143. HUNT  Tir  aiwa ‘hunt’
  *(a/e)ciwa (V)  Ak2 a?iwa-e {hunt-Purpose} ‘hunt’
  Kh1 eciwa ‘cazar’

144. HUSBAND  Tir  i-njo ‘husband’
  *mijo,  Ak2 mijo {1}, a-mijo {2} ‘husband’ {The 2sg form may be analogical reshaping.}
  *(i-/j-)no (?)  Kh2 ?i:nö ‘marido’, injö ‘Ehemann’

145. I 1)  Tir  wi ‘I’
  *əwi (Pr)  Ak2 wi ‘I’
  Kh1 awi {1}, Kh3 iwa ‘ich’
146. IF/WHEN  Tir ahtao ‘if, when’
*ahtawɔ (P)  Ak2 ahtawɔ ‘if, when’

147. IN1  Tir pakoro tao ‘in the house, inside of the house’
*tawa (Pp)  Ak2 pakoro tawɔ ‘in the house’
Kh1 ati tawɔ {what in} ‘when’, Kh3 mani-tau ‘in dem Hause’ (house Loc)

148. IN2  Tir pata po ‘in the village’
*po (Pp)  Ak2 irɔ po ‘over there’ {that Loc}
Kh3 uɛue-ho ‘auf dem Baum’ {tree Loc}

149. IN3  Tir tuna hka ‘in the water/river’
*hkwawɔ (Pp)  Ak2 tuna :kwawɔ ‘in the water/river’

150. INAMBU  Tir patuna ‘big inambu’
*patuna (N)  Ak2 patuna ‘inambu’
Kh3 hituni ‘mittelgrobes Inambů (Crypturus Tataupa Temm.)’

151. INTO1  Tir pakoro ta[ka] ‘into the house’
*taka (Pp)  Ak2 pakoro taʔ atae ‘I am going into the house’ {house into I-am-going}
Kh3 mani-takå ‘in das Haus’ {house Into}

152. INTO2  Tir tuna-hka[ka] ‘into the river’
*hkwak(a/i) (Pp)  Ak2 tuna kwaʔ atae ‘I am going into the river’ {river into I-am-going}
Kh3 tuná-xkaki ‘in den Fluß’

153. INAJÁ  Tir maripa ‘inajá’
*maripa (N)  Kh3 marihá ‘Inajá-Palme’

154. INGÁ  Tir karau ‘ingá’
*karau (N)  Ak2 karau ‘ingá’
Kh3 karú ‘zahme Ingá’

155. IT (3In)  Tir irɔ ‘it (anaphoric inanimate)’
*irɔ (Pr)  Ak2 irɔ ‘it (anaphoric, inanimate)’
Kh1 irɔ (3In)

156. JACAMIM  Tir mami ‘jacamim’
*mami (N)  Ak2 mami ‘jacamim’
Kh3 ma:mi ‘Yacamí’
{Since the length was not preserved in Tir, it is probably spurious.}

157. JACU  Tir marasi ‘jacu’
*mara(u/c)i (N)  Kh2 maratti ‘pava de monte’, Kh3 maráti ‘Yacú (Penelope Marail)’
158. JACURARU  Tir rupe `jacuraru'
*rupeci (N)  Ak2 kurupe `jacuraru'  [There should be a ŋ/ here. The /ku/ is unexplained]  
Kh3 ruhe:哨 `Yacurarú'

159. JAGUAR  Tir kaikui `jaguar'  
*kaikuci (N)  {Ak1, Ak2 wiri `dog, jaguar' do not belong here.}  
Kh1 kaikuci `perro', Kh2 kaikúci `tigre', Kh3 kaikúdʒi `Jaguar'

160. JENIPAPO  Tir menu `jenipapo'
*menu (N)  Ak2 menu `jenipapo'\'s  
Kh3 ménu `Genipapo'

161. KNEE  Tir were:na, i-were:na `knee'
*(w)erece(m/n)a (N)  Ak1 c’e:na:-ri `knee'. Ak2 j-ere:\'na-ri {1}, Ak3 erehema `rodilla'
Kh2 esena-ri `rodilla'
{These words may not be cognate, or only partially so: Tir /were:na/ may be an old compound.}

162. KNOW  Tir ji:-warə {1} `I know'
*warə (Pp)  Ak2 wi-warə {1} `I know'
Kh2 dʒi:-wári {1} `saber'

163. LAKE  Tir ikutupə `lake'
*ikutupa (N)  Ak2 ikutupə `lake'
Kh1 ikutuhə `lago', Kh2 ikutuhə `lago', Kh3 ikútuhí `See'

164. LAUGH  Tir e:ranə `to laugh'
*euran(a/i) (V)  Kh3 eura:ni `lachen'

165. LEAF  Tir ari `leaf'
*ari (N)  Ak2 wewe ari `tree leaf'
Kh1 ari `hoja'. Kh2 ári `hoja', Kh3 ari, ari `Blatt'

166. LEAVE  Tir na[mi] `to leave, to abandon O'
*na[m(i/a)] (V)  Kh1 na[ma] `dejar, olvidar'

167. LEG  Tir pirepə, i:-repa `leg'
*[pi]repa (N)  Ak1 pi\'repa:`ri {1}, i:-repa:ri `calf', Ak2 pi:repə-ru, pi:repə, ji:-repa {1}
Ak3 ki-repa {1+2} `pierna'

168. LIP  Tir ahpi, ehpi `(upper) lip'
*ahpi,  Ak2 k-ahpi-ri, ehpi-ri `(upper) lip'
ehpi (N)

169. LITTLE1  Tir pijə, pijə-nə [nominalized form] `little'
*pica (A)  Kh1 hica-no `corto, pequeño', Kh3 hó\dʒa `wenig', hitçá-rikí-nai `klein'
170. LITTLE2 Tir akii ‘little things, insects’
   *akii (N) Kh1 akii-me ‘estrecho’

171. LIVER Tir are, ere ‘liver’
   *are, Ak1 k-are, ere:rei ‘liver’. Ak2 j-e:re [1] ‘liver’, Ak3 ire-re ‘hígado’
   *ere (N) Kh1 ere-ri ‘hígado’, Kh2 ere-ri ‘hígado’, Kh3 ere:-ri ‘visceras’

172. LIZARD Tir joi ‘lizard (calango)’
   *joci (N) Ak2 jo?l ‘lizard (calango)’
   Kh3 jo:dʒi ‘Eidechse’

173. LONG Tir ma:. ma:no (nominalized form) ‘far, long’
   *mi(p/c)a (A) Ak2 mi?a, mi?a-no (nominalized form) ‘far, long’
   Kh1 miha ‘lejos’, miha-no ‘largo’, Kh3 miha-nai, maha-nai [long-3:Cop] ‘lang, weit’
   {Irregular development in Tiriyó: *mipa > ma: ? Maybe *mica? Cf. LOUSE}

174. LONG AGO Tir pena ‘long ago’
   *pena (A) Ak2 pena-ra ‘long ago’
   Kh1 hena -ra ‘il y a longtemps’

175. LOUSE Tir ja:mi ‘louse’
   *ja(p/c)ami (N) Kh1 jahami ‘piojo’, Kh2 dʒámi ‘piojo’, Kh3 ja:mi ‘Laus’

176. MACAW Tir kinoro ‘macaw’
   *kinoro (N) Ak2 kinoro ‘macaw’
   Kh2 kinoró ‘guacamayo’, Kh3 kinóro ‘Arara (Macrocerus Macao)’

177. MAKE Tir [ti]ri ‘to make, put’
   *[ti]ri (V) Ak2 mi-ri [2-make] ‘you made it’
   Kh3 tar-ki (put/make-Imperative) ‘lege!’

178. MAN Tir kiri ‘man, male’
   *(k/g)iri (N) Ak2 kiri ‘man’
   Kh1 giri ‘hombre’, Kh2 giri ‘hombre’, Kh3 gari ‘Mann’
   {Does the /g/ indicate */nk/? Cf. also Karinya wokiri [Hoff 1968:437]}

179. MANIOC Tir wii ‘manioc’
   *wii (N) Kh3 wai, wəi, wa:ii ‘Mandiokafladen (Beijü)’

180. MILIPEDE Tir kunepepe ‘milipepe’
   *kunepepe (N) Ak2 kunepepe ‘milipepe’
   Kh3 kunehehe ‘Tausendfuß’

181. MOON Tir nunna ‘moon’
   *(N) [Ak2 wa:wa ‘moon’ does not belong here.]
   *nunna (N) Kh2 nuná ‘luna’, Kh3 núni ‘Mond’
182. MORNING
  Tir kokonkərə ‘morning’ (koko-nkərə ‘night-still’, i.e. ‘still night’)
  *kokonkərə (A)
  Ak2 kokonkərə ‘morning’ (koko-nkərə ‘night-still’, i.e. ‘still night’)
  Kh3 kokogiri ‘morgen’ (/giri/ is probably a particle, like Tiriyó/ŋkərə/.)

183. MORTAR
  Tir ako ‘mortar’
  *ako (N)
  Kh3 á:ko, á:go ‘Mörser’

184. MOSQUITO
  Tir ma:knə ‘mosquito, carapana’
  *macakə (N)
  Ak2 ma:kanə ‘mosquito’
  Kh2 masāki ‘zancudo’, masāki ‘Mosquito’

185. MOTHER1
  Tir ma, manko, i-mama ‘mother’
  *mama (N)
  Ak2 mama {1, 2} ‘mother’
  Kh1 mama ‘mamá’, Kh2 mamá ‘madre’, Kh3 máma ‘Mutter’

186. MOTHER2
  Tir ipa-ije ‘daughter-in-law’ [diachronically, i-pa-i(-)je ‘grandson’s mother’]
  *i(-)je (N)
  Kh1 ije ‘madre’, Kh2 idże ‘madre’, Kh3 i(d)je ‘Vatterschwestern’

187. MOUNTAIN
  Tir pi ‘mountain, hill’
  *pi(p)i? (N)
  Kh1 hibi ‘cerro’ [Kh1 /bi/ might indicate a missing nasal, */mp/.]

188. MOUTH
  Tir mita, i-nta ‘mouth’
  *[mi]ta (N)
  Ak1 mi:ta-ri {1}, i-nta ‘mouth’, Ak2 i-nta-ri ‘mouth’, Ak3 i-nta ‘boca’
  Kh1 mida ‘boca’, Kh2 i-da-ri ‘boca’, Kh3 ji-ta-ri ‘Mund’

189. NAME
  Tir æ:ti, æ:ti ‘name’ [No explanation for Kh2. Kh3 /ej/-.]
  *(æ)j:eceti (N)
  Kh1 eseti ‘nombre’, Kh2 ejeseti ‘nombre’, Kh3 aw-ije(d)zeti ‘Name’

190. NAVAL
  Tir ponì, i-ponì ‘navel’
  *ponì (N)
  Kh2 hóni-ri ‘ombrego’, Kh3 boni-ri {1} ‘Nabel’

191. NECK
  Tir pima, i-pima ‘neck’ {Tir final /a/ may be a mistake.}
  *pim(a)i? (N)
  Ak1 p:i-ma-ri {1}, i-pim-ri ‘neck’, Ak2 pi:mi-ri {1}, a-pimi-ri {2} ‘neck’
  Kh1 i-himi-ri ‘cuello’, Kh2 himi-ri ‘cuello’, Kh3 bama-ri ‘Hals’

192. NEW
  Tir kainan ‘new’
  *kaenan (N?)
  Kh1 kaenan ‘nuevo’

193. NIGHT
  Tir koko ‘night’
  *koko (A)
  Ak2 koko-ro ‘tomorrow’ [lit. night-Emph]
  Kh1 koko ‘noche’, Kh2 kóko ‘noche’, Kh3 kóko ‘Frühmorgens’

194. NIGHT: FALL
  Tir ko:ma[mi] ‘to become night; to be out until nightfall’
  *ko:ma[mi] (V)
  Ak2 ni-koman-jan ‘it is getting dark’
  Kh1 koma[mi] ‘atardecer’
195. NOSE

*ōna (N)  Ak1 oñá-ri 'nose', Ak2 eonata-ri 'nose', Ak3 eunate 'nariz'
Kh1 ona-ri 'nariz', Kh2 o:ñá-ri 'nariz', Kh3 j-oná-ri 'Nase'
(The Ak3 form suggests *ouna or *euna, but it may be mistaken. Ak2 confirms it)

196. NOT1

*ta[ike] (Ptc)  Kh1 daike 'négation identité'

197. NOT2

*wa:ke[ne] (Ptc)  {wa: 'Neg', ke[ne] 'Continuous'}

198. OLDER BROTHER

*pi (N)  Ak2 pipi {1, 2} 'older brother'
Kh1 hihi 'mi hermano mayor', Kh3 hhí 'älterer Bruder'

199. OLDER SISTER

*waikó (N)  Ak2 wai {1} 'older sister'
Kh3 wiiícó 'ältere Schwester'

200. OLD MAN

*tamutupá (N)  Kh1 tamutuhá 'viejo', Kh2 tamutuhí 'viejo', Kh3 tamúthá 'Greis'

201. OLD WOMAN

*noti[p] (N)  Kh2 notití 'viejita', Kh3 notitá 'Greisin'

202. ON

*po (Pp)  Ak2 po 'on'
Kh1 ho 'superesivo ('sobre')'

203. ONE

*t(a/e)jun(j) (A)  Ak2 tainá-ra 'one'
Kh2 ténjí 'un', Kh3 ténji '1'

204. ONLY

*r(a/e)kene (Ptc)  Ak2 raken 'only'
Kh1 reke 'seulement'

205. OPEN/UNCOVER

*apumaka (V)  Kh1 apumaka 'abrir, destapar'

206. OTHER

*akoron[i] (N)  Kh3 akronó 'ein anderer'
(Final /i/ instead of /o/ suggests lexicalization, i.e. not derived from /akaron/ 'with'.)
207. OTTER1  Tir  jawi ‘big otter, ariranha grande’  
  *jawi (N)  Ak2 jawi ‘big otter’  
  Kh3 (d)jawi ‘Fischottter e(Lutra brasiliensis)’

208. OTTER2  Tir  saro ‘small otter, ariranha pequena’  
  *caro (N)  Kh2 saró ‘perro de agua’

209. PACA  Tir  kurimau ‘paca’  
  *kurima(u/o) (N)  Ak2 kurimau ‘paca’  
  Kh2 kurimáo ‘paca’. Kh3 kurí.mau ‘Paca (Coelogenys Paca)’

210. PACU  Tir  paku ‘pacu (fish sp)’  
  *paku (N)  Ak2 paku ‘pacu (fish sp)’  
  Kh3 háku ‘Pacü (Prochilodus, Myletes spec.)’

211. PAINFUL  Tir  kutuma[ka] ‘painful’  
  *kutumcaka (A)  Ak2 kutu?(w)a [ka] ‘painful’  
  Kh3 kutusaka-nai [ill-3:Cop] ‘krank’

212. PAINT  Tir  i(-)menuhta ‘to paint’ {menu-htä ‘jenipapo-Provide:Vzr’}  
  *i(-)-menuhta (V)  Kh3 ime:nuxtä-ri ‘malen’

213. PAPAYA  Tir  mapaja ‘papaya’  
  *(p/m)apa(i)ca (N)  Kh3 hahaidja ‘Mamão (Carica Papaya)’  
  [The Kh3 /i/ might be a part of the /iy/... Tir /m/ is hard to explain.]

214. PATH  Tir  æema, e:ma ‘path’  
  *ecema (N)  Ak1 æema ‘path’  
  Kh1 esema ‘camino’, Kh2 esesmä ‘camino’. Kh3 eséma ‘Weg’

215. PECCARY1  Tir  pakira ‘samlle peccary, caititu’  
  *pakira (N)  Ak2 pakira ‘smaller peccary’  
  Kh2 hakira ‘saino’, Kh3 hakîra ‘Taitetú (Dicotyles torquatus)’

216. PECCARY2  Tir  ponjeke, panjeke ‘bigger peccary, queixada’ {dialectal variants}  
  *paineke (N)  Ak2 paineke ‘bigger peccary, queixada’

217. PENIS  Tir  oroki,  
  *oroki,  
  Ak1 k-orokí1-komo {i+2}, aró:ki-ri ‘penis’, Ak2 j-a:roki {1}, Ak3 aroki ‘pene’  
  *aro (N)  Kh1  
  aroki-ha ‘rabo’, Kh2 aroki-ri ‘coda’, Kh3 j-aróki-ri ‘Penis’

218. PEPPER  Tir  pamai ‘pepper’  
  *pamai (N)  Ak2 pamai ‘pepper’  
  Kh1 hamai-ma ‘sal’, Kh2 hmaí ‘aji’, Kh3 hamii ‘Pimento, spanischer Pfeffer (Capsicum L.)’
219. PERSON
   *witoto (N)
   Tir  wítoto ‘person, people’
   Ak2 wítoto ‘person, people’
   Kh1 wítoto ‘witoto (nom d’ethnie)’; Kh3 uítoto ‘Feind’

220. PIUM
   *mapiri (N)
   Tir  mapiri ‘pium’
   Kh3 mahı:ri, màhiri ‘Pium (Simulium)’

221. PIRANHA
   *pane (N)
   Tir  päne ‘piranha’
   Ak2 päne ‘piranha’
   Kh2 hi:né ‘caribe’, Kh3 hãni ‘Piranha (Serrasalmo, Myletes spec.)’

222. POTATO
   *napi (N)
   Tir  nàpi ‘potato’
   Kh3 nahf ‘Batate’

223. PREGNANT
   *minoto (N?)
   Tir  mìno-me ‘pregnant’ (pregnant-Attrib)
   Kh3 minóto, mánoto ‘schwanger’

224. PUBIC HAIR
   *moti (N)
   Tir  mo[t]i, i-mo[t]i ‘pubic hair’
   Kh3 moti ‘Schemhaar’

225. RAIN
   *konopo (N)
   Tir  konopö ‘rain’
   Ak2 konopo ‘rain’
   Kh1 konóho ‘lluvia’, Kh2 konóho ‘lluvia’, Kh3 konóho ‘Regen’

226. RAT
   *munjupa (N)
   Tir  munupa ‘rat’
   Kh2 muñúhi ‘ratón’, Kh3 múngúhi ‘kleine Maus’ {fu/ or ny/? Probably /u/}

227. RATTLE
   *maraka (N)
   Tir  maraka ‘rattle’
   Kh2 maraká ‘sonajero, maraca’, Kh3 maráká ‘Kürbisklapper’

228. REALLY
   *ra. *ro (Ptc)
   Tir  ra, ro ‘really (emphasis particle)’
   Ak2 ra, ro ‘really (emphasis particle)’
   Kh1 amá-ra ‘2’, ajanam-ro ‘2col’ [emphasis particle]

229. RED
   *ta(mi):re, ta(mi):ren [=mi] {Nominalized form} ‘red’
   Kh1 tamire-mi ‘rojo’, Kh3 taxmire-mi ‘rot’
   {Ak1, Ak2 apiru ‘blood’ may be related to this cognate set.}

230. RELATIVES
   *m(o/ø)iti
   Tir  moiti ‘relatives’
   Kh1 mäiti ‘familia, parentela, los parientes’

231. RIB
   *awotí (N)
   Tir  aotí ‘rib’ {Irregular development in Tiriyó: *awotí > aotí (i.e. /w/-loss); why?}
   Ak3 aotí-jehpa ‘costillas’ {rib-bone}, Ak2 jaoh-pana-ri ‘ribs’ {1-rib-ear?-Psfx}
   Kh3 j-aotí ‘Rippen’
232. ROOT/VEIN  Tir  im[i]i ‘root’
  *(i)mi[i] (N)  Ak2  j-e?na miti ‘back of knee’ {1-knee?--line/nerve? Is this really cognate?}
  Kh1  im[i]i ‘raiz’, Kh2  im[i]i ‘raiz’, Kh3  m[i]i ‘Wurzel’, (d)j[i]-mi:-ri {1} ‘Ader, Sehne’
  {Kh3 /d]j]imi:ri/ shows syllable reduction, i.e. it already existed in Proto-Taranoan}

233. ROPE  Tir  āwa,  ēwa ‘rope’
  *āwa,  Ak2  j-e:wa-ri {1; the /j/ is part of the 1 marking} ‘rope’
  *ēwa (N)  Kh1  ewa-ri ‘cuerda’, Kh2  ewa-ri ‘cuerda’, ēwa-ri ‘Schnur’

234. SALIVA  Tir  ataku,  etaku ‘saliva’
  *ataku,  Ak1  k-at:a?ku komo {1+2}, eta?ku-ru ‘saliva’
  *etaku (N)  Kh1  etaku-ru ‘saliva’, Kh2  etát:ku-ru ‘saliva’, Kh3  j-eta:ku-ru {1} ‘Speichel’

235. SAND  Tir  samu ‘sand’
  *camutu (N)  Ak2  camutu
  Kh1  samutu ‘arena’, Kh2  samutu ‘arena’, Kh3  (d)amutu ‘Sand’

  *euku,  Ak2  weve eukuru ‘tree sap’
  *epuku (N)  Kh2  eki:ru ‘savita’, Kh3  eku:ru-ru ‘Baumsaft’
  {Kh probably non-cognate; cf. Wayana, with both epku and euku as different words.}

237. SAY  Tir  ka ‘say’
  *ka (V)  Ak2  ka-e {habitual?} ‘(we) used to say’
  Kh2  ka-e {purpose?} ‘decir’, Kh1  i-ka-ri ‘decir’ {3-say-Psfx, ‘his/her saying’}

238. SAVANNA  Tir  oi ‘grass, savanna’
  *wowi (N)  Ak2  oi ‘grass, savanna’
  Kh3  owi ‘Savane, Campo’

239. SCORPION  Tir  minata ‘scorpion’
  *minata (N)  Ak2  minata ‘scorpion’
  Kh3  mina:ti ‘Skorpion’

240. SCROTUM  Tir  āmu,  emu ‘scrotum’
  *āmu,  Ak1  k-āmu:-komo {1+2}, emu:-ru ‘testicles’, Ak2  j-e:m-ru {1}, Ak3  āmu-ru
  *emu (N)  Kh3  j-em-u-ru {1} ‘Scrotum’

241. SEAT  Tir  āpai, apai ‘seat’
  *apa?i,  Ak2  apai ‘seat’
  *apa?i (N)  Kh2  ihi ‘bancio’, Kh3  ahii ‘Sitzschemel’

242. SEE  Tir  ene ‘to see’
  *ene (V)  Kh1  ene -ka {see-Imperative} ‘mire’, Kh3  ene-ki {see-Imperative} ‘seh!’
243. SEIZE  
Tir apə[i] ‘to seize, catch, grab’
  *apəc (V)  Ak2 m-apə-ca-na {2-grab-Prg-Evid} ‘you are grabbing it’
  Kh1 j-at-ahɔci {1-Ref-grab} ‘yo me cogí, me agarré’, Kh3 n-ahidʒi ‘greifen’

244. SHADOW/SOUL  
Tir omore, amore ‘shadow, soul, spirit’
  *omore, amore (N)  Kh3 j-amóre-ri {1} ‘Schatten’

245. SHAMAN  
Tir pijai ‘shaman’
  *pijadi (N)  Kh1 hijaci ‘brüjo’, Kh2 i:jaci ‘curandero’, Kh3 hj(d)jadʒi ‘Zauberarzt’

246. SHARP  
Tir aesa ‘sharp’; aima ‘hot (like pepper)’
  *aecaka (A)  Kh1 aesa ‘curtante’ {Is Tir. aima cognate? If it is, it suggests *amcaka.}

247. S/HE (3An)  
Tir nəɾə ‘s/he’ {Anaphoric animate pronoun.}
  *nəɾə (Pr)  Ak2 nəɾə ‘s/he’
  Kh1 nəɾə {3An}, Kh2 nəɾi {3An}, Kh3 nəɾi {3An}

248. SHORT  
Tir tinti:je ‘short’
  *tinti:(cfj)e (A)  Kh3 dədə(d)ʒi-naj {short-3:Cop} ‘kurz’ {No explanation for the initial /d/.}
  {This could be a *c. but also a *j. as e.g. in CHIN.}

249. SHOULDER  
Tir mota, i-mota ‘shoulder’
  *mota (N)  Ak1 mo’ta-ri, i-mo’ta-ri. Ak2 i-mota-ri ‘shoulder’. Ak3 i-mota ‘hombro’
  Kh3 móta:-ri {1} ‘Schulter’

250. SHOULD Blade  
Tir mipa, i-mpa ‘shoulder blade’
  *[mi]pa (N)  Ak2 mi:pa {1}, Ak3 i-mpa ‘shoulder blade’
  Kh2 i:-ba(-n) ‘espalda’, Kh3 (d)ji-bá {1} ‘Schulterblatt’

251. SHOUT  
Tir kəhtu[mu] ‘to shout, to scream’
  *kəhtu[mu] (V)  Kh1 katu-ka {shout-Imperative} ‘shout!’
  {Kh1 apparently lacks the final syllable; it may be a different suffix.
  It may have been lost; cf. ONLY, NOT2, number markers [Sec. 6.3.2]}

252. SIEVE  
Tir manare ‘peneira’
  *manare (N)  Kh3 manáre, mána:re ‘Sieb’

253. SKIN  
Tir pihpə, i-pihpə ‘skin’
  *piti:pa (N)  Ak1 pihpə-ri ‘skin’

254. SKY  
Tir kapu ‘sky’
  *kapu (N)  Ak2 kapu ‘sky’
  Kh1 kāhu ‘cielo’, Kh3 kāhu ‘Himmel’
255. SLEEP  
Tir  ṣːn[i]ki ‘to sleep’, t-ːniki ‘I slept {1}
*(aː)ni[k]i (V)  
Ak2  aːni[k]i ‘to sleep’, k-ːniki ‘I slept’ {1}
Kh1  oni[k]i ‘dormir’, Kh2  j-oni-jáːi {1}, Kh3  ṧni(x)ki, n-ːniki {3col} ‘schlafen’
{Kh3 initial stress probably indicates a long initial vowel, as in the Tir cognate.
Kh2 provides evidence for morphophonological syllable reduction in PT.}

256. SLOTH  
Tir  ʔreːkoɾe ‘sloth, macaco-preguiça’
*(w)arekore (N)  
Ak2  arekore ‘sloth’
Kh3  uarekore ‘Faultier (Bradyus spec.)’
{Tir may be /j/-initial if possessed (like /omí/); check! Again w/j ?}

257. SMOKE  
Tir  ʔreːnta ‘smoke’
*arencitoa /  
Kh1  ʔracito ‘humo’, Kh2  ereciiti ‘humo’, Kh3  iridžiti ‘Rauch’
*arecinta (N)  
{Cf. 4.2.1; cf. also ASH, probably a related cognate set.}

258. SNAKE  
Tir  ʔakai ‘snake’
*akāi(N)  
Kh1  ʔakai ‘culebra’, Kh3  ʔakai, ikii ‘Yararáca’

259.SOLE  
Tir  pita,  
i-hta ‘sole’
*[piːta (N)  
Ak1  piʔta-rí {1}, i-htaʔ-ri ‘sole’, Ak2  piːta-ri {1}

260. SONG  
Tir  aremi,  
eremi ‘singing, song’
*aremii,  
Ak2  ereʔmi-ri ‘canção’
*aremii (N)  
Kh3  areːmi ‘Tanz’, Kh1  eremi-ri ‘cantar’

261. SPEAK  
Tir  if(-)jompa ‘to speak to’
*wompa (V)  
Kh3  ni-uːbaːni ‘reden’

262. SPIDER1  
Tir  moi ‘spider’  {Irregular development: *mojoci > *mojoi > *mooi > moi ?}
*mojoci (N)  
Kh3  mojódʒi, mo(d)jóːdʒi ‘Spinne’

263. SPIDER2  
Tir  sawarakau ‘big spider’  {Irregular development: /h/-loss in Tiriyo?}
*ca(a)iwaraka(r)u (N)  
Kh3  dʒiwarākaru ‘Vogelspinne (Mygale)’

264. STAR  
Tir  sirikə ‘star’
*cirikə (N)  
Ak2  cirikə ‘star’
Kh1  cirikə ‘estrella’, Kh2  ciriki ‘estrella’, Kh3  (d)siľki ‘Stern’

265. STEAL  
Tir  aminə[p]i ‘to steal’
*aminent[p]i (V)  
Kh1  amina(CV) ‘robar’

266. STILL/YET  
Tir  nkara ‘yet, still’
*nkara (Ptc)  
Ak2  nkara ‘yet, still’
Kh1  garə ‘encore’

267. STINGRAY  
Tir  sipari ‘stingray’
*cipari (N)  
Kh3  dzilhaːri ‘Rochen (Raya)’
268. STONE 
- Tir tapu 'stone'
  *tapu (N) Ak2 tapu 'stone'
  Kh1 tahu 'piedra', Kh2 tihu 'piedra', Kh3 tahu 'Berg', tihu 'Stein'

269. SUITCASE 
- Tir pakara 'suitcase'
  *pakara (N) Kh3 háka:ra 'Patrontasche'

270. SUN 
- Tir wei 'sun'
  *wei (N) Ak2 wei 'sun'
  Kh1 wei 'sol', Kh2 bei 'sol', Kh3 wei 'Sonne'

271. SWEAT 
- Tir (ə)ramuku, eramuku 'sweat'  {No explanation for Tir /ramuku/, without /ə/.}
  *aramuku, Kh3 j-eramuku-ru (1) 'Schweiß'
  *eramuku (N)

272. SWELL 
- Tir n-ao-n 'it is swelling'
  *awo (V) Kh1 awo-na 'hincharse' {swell-Inf?}

273. TAKE 
- Tir ara 'to take (away)'
  *ara (V) Ak2 ara 'to take (away)'
  Kh1 ara 'porter'

274. TAPIR 
- Ak2 ma?ipuri 'tapir'
  *macipuri (N) Kh1 macihuri 'tapir', Kh2 macihúri 'danta', Kh3 madzfhuri, madʒfhuri 'Tapir'
  (Tapirus americanus)  {The Tir. /pái/ 'tapir' belongs in the ACOUCHY cognate set.}

275. TEACH 
- Tir m-empa (2) 'you have taught'
  *empa (V) Ak1 m-empa (2) 'you have taught'
  Kh1 m-eba (2) 'usted enseñó'

276. TELL 
- Tir pono[pí] 'to tell'
  *pono[pí] Kh1 ni-ho-hono-jakadaka (3A-Redup.-tell-Pst.Impf) 'contaba'

277. THAT1 (3AnI) 
- Tir maki 'that one (animate)'  {Cf. 6.1.2}
  *maki (Pr) Kh1 maki, mako (3AnInv)

278. THAT2 (3InDV) 
- Tir məra 'that one (inanimate)'  {Cf. 6.1.2}
  *məra (Pr) Ak2 məra 'that one (inanimate)'
  Kh1 məra 'démonstratif 4', Kh2 miri {3InMd}

279. THAT3 (3InI) 
- Tir mə[ni] 'that one (inanimate)'  {Cf. 6.1.2}
  *mən( Pr) Kh1 mən {3InInv}
280. THAT4 (3AnDV) Tir mā:ra ‘that one (animate)’  (Cf. 6.1.2)
   *mā:kira (Pr)   Ak2 mā:kira ‘that one (animate)’

281. THESE (3AnPVCol) Tir mā:esa[mo] ‘3AnPVCol’  (Cf. 6.1.2)
   *mā:c)ecamo (Pr)   Ak2 mā:ecamo ‘3AnPVCol’

282. THEY (3AnACol) Tir namo ‘they (anaphoric)’  (Cf. 6.1.2)
   *namo(ro) (Pr)   Kh1 namo-ro ‘3AnACol’

283. THIGH   Tir peti, i-peti ‘thigh’
   *peti (N)   Ak1 pe:ti-ri {1}, i-pec:ti-ri ‘thigh’, Ak3 i-peti ‘pierna’
   Kh1 hati ‘pierna’, Kh2 i-heti ‘pierna’, Kh3 bēti {1} ‘Oberschenkel’
   {Kh1 /a/ is quite unexpected here; probably a mistake.}

284. THINK   Tir ai-puuna[pi], ah-puuna[pi] ‘to think’  (DETR-think.about.O)
   *pu:na[pi] (V)   Kh1 etu-huna-na ‘pensar’  (DETR-think.about.O-Nzr)

285. THIS1 (3InPV-1)   Tir se[ni] ‘this one (inanimate)’  (Cf. 6.1.2)
   *(c)eni (Pr)   Kh1 eni ‘este’

286. THIS2 (3InPV-2)   Tir sera ‘this one (inanimate)’  {Maybe *ṣere > sera with an extra /se/- element.}
   *(c)erar (Pr)   Ak2 cera ‘this one (inanimate)’  (Cf. 6.1.2)
   Kh1 ṣera ‘ceci’  {Irregular development? *cera > ṣera?}

287. THIS3 (3AnPV)   Tir mā: ‘this one (animate)’
   *mā:ce (Pr)   Ak2 mā:ce ‘this one (animate)’
   Kh3 mā:hi

288. THORN   Tir amāina ‘thorn’
   *amāicina (N)   Ak2 amā:ina ‘thorn’
   Kh3 amā:inya ‘Dorn’

289. THOSE1 (3AnDVC)   Tir mā:ja[mo] ‘3AnDVCol’  (Cf. 6.1.2)
   *mā:jamo (Pr)   Ak2 mā:jamo ‘3AnDVCol’

290. THOSE2 (3AnICol)   Tir mā:kija[mo] ‘3AnICol’
   *(c)ajamo (Pr)   Ak2 mā:kijamo ‘3AnICol’

291. THREE   Tir aerao ‘three, several’
   *aeraawa (A)   Kh1 serawa-ra ‘tres’, Kh3 dze:rái-ri ‘3’  {Final /a/ reconstructed from Kh1.}

292. THROAT   Tir e:na, c:na ‘throat’
   *e(c)ena (N)   Ak2 k-o:ena {1+2}, e:ena ‘throat’, Ak1 k-o:nari {1+2}, e:nari ‘throat’
   {Ak1 may be a mistranscription.}
293. THROW  Tir  ema ‘to throw’
   *ema (V)  Kh1 ema-ri ‘echar’

294. TIE  Tir  i[mi] ‘to tie’ (e.g. /n-in-ja/ {3-tie-Prog} ‘s/he is tying it.’)
   *i[mi]  Kh1 i[mi] ‘amarrar’

295. TIMBÓ  Tir  ineke ‘timbo, a kind of poisonous lana’
   *ineke (N)  Kh3 inêku ‘Timbo (Paullinia pinnata L.)’

296. TIPITI  Tir  matapi ‘tipiti, manioc press’
   *matapi (N)  Kh3 matáhi ‘Tipiti’  [Kh3 /x/ is probably spurious.]

297. TO1  Tir  sesu jə ‘to Sérgio’
   *ja, *oja,  Ak2 anja jə ‘to us’
   *wija (Pp)  Kh3 makája jə ‘zum Macaya’
   {wija {1}, o:ja {2}, i:ja {3}, ki:ja {1+2}}
   {wija {1}, o:ja {2}, i:ja {3}, ki:ja / kəoja {1+2}}
   {ji:ja {1}, i:ja {3}}

298. TO2  Tir  pata pona ‘to the village’
   *pona  Ak2 pa:ta pona ‘to my house’ {pa:ta ‘1-place/house’}

299. TONGUE  Tir  nore. i-nore ‘tongue’
   *nore (N)  Ak3 i-nore ‘lengua’
   Kh1 i-niko ‘lengua’, Kh2 i:-nikó ‘lengus’, Kh3 ji-njiko ‘Zunge’
   (The Kh form seems not to be cognate; cf. Koch-Grünberg’s note (p.97) which suggests that /niko/ may be a borrowing from Arawakan.)

300. TOOTH  Tir  je, i-je ‘tooth’
   *je (N)  Ak1 je-ri {1}, i-je-ri, Ak2 je-ri, a-je-ri {1, 2} ‘tooth’, Ak3 je-ri ‘dientes’
   Kh1 je-ri ‘diente’, Kh2 i-je-ri ‘dientes’, Kh3 je-ri ‘Zahn’

301. TORCH  Tir  turi ‘light; torch; indigenous candle’
   *turi (N)  Kh3 tů:ri ‘Fackel aus harzigem Holz’

302. TORTOISE  Tir  kurija ‘jabuti’
   *kurica (N)  Ak2 kuriʔa ‘jabuti’
   Kh2 kurisá ‘tortuga’, kuridzá ‘Tartaruga (Emys amazonica)’

303. TRAÍRA  Tir  patakai ‘traíra (fish sp)’
   *patakací (N)  Ak2 patakai ‘traíra (fish sp)’  {There should be a glottal stop in the Ak2 cognate.}  
   Kh2 hatakádzi, hatákdzi ‘Trahira (Erythrinus Tareira Cuv.)’

304. TREE/WOOD  Tir  wewe, ji-wewe {1} ‘wood, trunk’
   *wewe (N)  Ak2 wewe ‘tree’
   Kh2 wéwe ‘árbol’, Kh3 wewé ‘Brennholz; Baum’
305. TRUNK  Tir  api, epi ‘trunk (of a tree)’ [Maybe /apu/, /epu/ ‘pole, post’ also belongs here.]
   *api,  Ak2  epi ‘trunk (of a tree)’
   *epi (N)  Kh1  ahi ‘árbol’

306. TUCUMÁ  Tir  amana ‘tucumá’
   *amana (N)  Ak2  amana ‘tucumá’
   Kh3  amána ‘Tucum-Palme’

307. TURTLE  Tir  sawaru ‘turtle’
   *cawaru (N)  Ak1  sawaru ‘turtle’, Ak2  cawaru ‘turtle’
   Kh3  dzáwaru ‘andere große Schildkröte’

308. TWO  Tir  akána ‘two’
   *akána (A)  Kh1  såkána-ri ‘dos’, Kh3  sikini-ri ‘2’ [Initial /a/-loss in Kh? Cf. THREE]

309. UNDER  Tir  apai epina ‘under the seat’ [seat under]
   *epina (Pp?!)  Kh1  ehin ‘if’, Kh3  mání-ehin ‘unter dem Haus’ [house under]

310. UNGRASS  Tir  poka ‘to undress’ [po-ka ‘clothes-Remove.Vzr’]
   *poka (V)  Kh1  i-hoka ‘desvestirse’

311. URINATE  Tir  i-suhta ‘to urinate’
   *i(;)cuhta (V)  Kh3  n-i(d)zúxta-ni ‘pissen’

312. URINE  Tir  suku, i-suku ‘urine’
   *cuku (N)  Ak1  ¿uku-la (1), i-¿uku-la ‘urine’, Ak3  suku-jakui ‘sangre menstrual’
   Kh3  (d)súku ‘Urin’
   [Ak1 /¿/ is unexpected; no explanation for it.]

313. VILLAGE  Tir  pata ‘place; village’
   *pata (N)  Ak2  pata tawa ‘inside of the house’
   Kh3  hata ‘Dorf’ [Ak. /pata/ apparently includes the meaning of ‘house’.]

314. VOICE  Tir  omi, ji-jomi {1} ‘voice, word, language’
   *womi (N)  Ak2  a-(?)omi {2} ‘language’
   Kh1  womani-ri {1} ‘mis palabras’, Kh3  wóni-ri {1} ‘Sprache’

315. VOMIT  Tir  we:naru, i-we:naru ‘vomit’
   *we(;)naru (N)  Ak1  we?na?ru-ru {1}, i-we?na?ru-ru ‘vomit’
   Kh2  nu-wena-ta-ni ‘to vomit’

316. VULVA  Tir  ari, eri ‘vulva’
   *ari,  Ak3  ere-re ‘vagina’
   *eri (N)  Kh3  éri-ri ‘Clitoris’
317. WAIT           Tir nmə[ku] ‘to wait’
         *məmə[k(i/u)] (V)  Kh1 məmə[k]i ‘esperar’

318. WARM           Tir atumə[ka] ‘warm, hot’
         *atumcaka (A)  Ak2 atu?aka, atu?waka ‘warm, hot’
         Kh1 atusaka ‘caliente’ {Notice similarity with BURN.}

319. WARMTH          Tir atun ‘warmth; object for keeping warm (e.g. blanket)’ {coda grade?}
         *atunu (N)  Kh1 atun ‘calor’

320. WASH            Tir isuka ‘to wash’
         *(i)cuka (V)  Kh1 sukā-ri ‘lavar’

321. WASP            Tir okomo ‘wasp’
         *okomo (N)  Ak2 okomo ‘wasp’
         Kh3 okōmō ‘Wespe’ {Kh3 /ō/ is probably spurious.}

322. WATER           Tir tuna ‘water’
         *tuna (N)  Ak2 tuna ‘water, drink’
         Kh1 tuna ‘riō’. Kh2 tunā ‘lluvia’. Kh3 tū:na ‘Wasser’

323. WE1 (1+2)        Tir kimə ‘we (dual inclusive)’
         *kimə (Pr)  Ak2 kimə ‘we’
         Kh1 kimə-ra {1+2}, Kh3 kimə-ra ‘wir’

324. WE2 (1+2col)     Tir kinjamo ‘we (collective inclusive)’
         *kinjamo (Pr)  Ak2 kinjamo, kinjamo ‘we’
         Kh1 kijamo-ro {1+2col} {*kimə-jano > *kim-jamo > *kiŋamo; cf. 6.1.1}

325. WE3 (1+3)        Tir anja ‘we (exclusive)’
         *anja (Pr?)  Ak2 anja ‘we’
         Kh1 anə ‘nosotros’ {1+3}

326. WHAT             Tir ati ‘what?’ {Irregular development, possibility of analogy; cf. 6.1.3}
         *ati (Intrg)  Ak2 ati ‘what?’
         Kh1 ati ‘qué’ {what}

327. WHITHER          Tir aja ‘where? whither?’
         *a(c/e/j)ja (Intrg)  Ak2 aja ‘where? whither?’
         Kh1 aṣa ‘où?’, ‘donde’

328. WHO              Tir aki ‘who?’ {Irregular development, possibility of analogy; cf. 6.1.3}
         *(ənə)ki (Intrg)  Ak2 aki ‘who?’
         Kh1 anəki ‘quién’
329. WIFE  Tir  pi[tɪ], i-pi ‘wife’, i-piti-mpo [3-wife-former], pih-ta [wife-Vzer] ‘to get a wife’
   {Ak1 has wari, cognate with words for ‘woman’, to mean ‘wife’.

330. WIND  Tir  pepe ‘wind’
   *pepeci (N)  Ak2 pepe’i ‘wind’
   Kh1 hehec ‘viento’, Kh2 hehec ‘viento’, Kh3 heheti ‘Wind’

331. WING  Tir  t-apari-ken ‘bird’, apāri ‘wing’
   *apari,  Kh1  aha-rí ‘ala’, Kh2 a’hi-rí ‘ala’, ahi-rí ‘Fügel’
   *apari (N)

332. WITH1  Tir  ama mara ‘with you’ {you with (comitative)}
   *mara (Ptc?)  Kh1  mara ‘con’, Kh3 bata-mari ‘mit der Gattin’ {1.wife with (comitative)}

333. WITH2  Tir  maja ke ‘with the knife’ {knife with (instrumental)}
   *ke (Pp?)  Ak2 wewe ke ‘with a stick’ {stick with (instrumental)}
   Kh3 inéku-ke ‘mit Timbó’ {timbó with (instrumental)}

334. WOMAN  Tir  wari ‘woman’
   *war(i)i(ci (N)  Ak2 wari?i ‘woman’
   Kh1 warici ‘mujer’, Kh2 werici ‘mujer’, Kh3 wēridgi ‘Weib’

335. WOODPECKER  Tir  wetu ‘woodpecker’
   *wetu (N)  Kh3 kue:tú ‘(Picus spec.)’ {Kh3 /kw/ is probably just /w/.}

336. WORM  Tir  mo(;)to ‘worm’
   *moto (N)  Ak2 moto ‘worm’
   Kh1 moto ‘lombric’, Kh3 mō:to ‘Regenwurm’

337. WRIST  Tir  amekunu[u], emekun[u] ‘wrist, forearm’
   *amekunu, Ak1 k-ame’kun-komo [1+2], e’em’kunu ‘forearm’, Ak2 a-emekunu [2] ‘wrist’
   *emekunu (N)  Kh2  emekunü ‘muñeca’, Kh3 j-emeküü:ru ‘Handgelenk’
   {Kh3 /u/ is quite unexpected; a mistake?}

338. YAM  Tir  napako ‘cará’
   *napako (N)  Ak2 napako ‘cará’
   Kh3 nahiki ‘Cará’

339. YAWN  Tir  etapo ‘to yawn’
   *etapo (V)  Kh3 j-etáho-ri ‘gähnen’ {Nominalized form}

340. YELLOW  Tir  kananame, kananama-no [yellow-Nzr] ‘yellow’
   *kananamano (N)  Kh1  kananamano ‘amarillo’
341. YESTERDAY  Tir  koki\xb0ja:ra ‘yesterday’
  *koki\xb0ja:ra (A)  Ak2  koki\xb0ja:ra ‘yesterday’
  Kh3  koki\xb0jari ‘gestern’

342. YONDER  Tir  tan\b0 ‘over there, yonder’
  *tan\b0 (A)  Kh1  tan\b0 ‘all’

343. YOU1 (2)  Tir  a\b0ma ‘you’
  *a\b0ma (Pr)  Ak2  a\b0ma ‘you’
  Kh1  a\b0ma-ra {2}, Kh3  im\b0-ra ‘du’

344. YOU2 (2col)  Tir  a\b0m\b0jamo ‘you’
  *\b0m\b0jamo (Pr)  Ak2  a\b0m\b0jamo ‘you’
  Kh1  a\b0m\b0joro {2col}, Kh3  ani\b0mor\b0 ‘ihr’ {cf. 6.1.1}

345. YOUNGER SIBLING  Tir  kami, k-ak\b0mi {1+2}, ak\b0mi ‘younger same-sex sibling’
  *ak\b0mi.  Ak2  j-a?mi {1; Voc} ‘younger same-sex sibling’
  *ak\b0mi  Kh3  j-ak\b0mi-hi {1?} ‘jüngerer Bruder’
### 9.2. Alphabetic list of reconstructed forms.

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<thead>
<tr>
<th>*a</th>
<th>*c</th>
<th>*entu</th>
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<tbody>
<tr>
<td>aecaka</td>
<td>camarakata</td>
<td>COAL</td>
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<td>aekc</td>
<td>camutu</td>
<td>SAND</td>
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<td>*(a/i)hta:ra</td>
<td>cara</td>
<td>HITHER</td>
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<td>ahawa</td>
<td>caro</td>
<td>OTTER2</td>
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<tr>
<td>akami</td>
<td>c(a/i)waraka(r)u</td>
<td>SPIDER2</td>
</tr>
<tr>
<td>akawara</td>
<td>cawaru</td>
<td>TURTLE</td>
</tr>
<tr>
<td>akawara</td>
<td>*ceni</td>
<td>THIS1</td>
</tr>
<tr>
<td>akii</td>
<td>*(c)(e/a)ra</td>
<td>THIS2</td>
</tr>
<tr>
<td>akipae</td>
<td>ceu</td>
<td>COAT</td>
</tr>
<tr>
<td>akiro</td>
<td>cika</td>
<td>FLEA</td>
</tr>
<tr>
<td>ako</td>
<td>cipari</td>
<td>STINGRAY</td>
</tr>
<tr>
<td>akorono</td>
<td>*ciopoti</td>
<td>BODY HAIR</td>
</tr>
<tr>
<td>akuri</td>
<td>cirika</td>
<td>STAR</td>
</tr>
<tr>
<td>amana</td>
<td>cucu</td>
<td>BREAST1</td>
</tr>
<tr>
<td>*am(i/e)cimcaka</td>
<td>cuku</td>
<td>URINE</td>
</tr>
<tr>
<td>*amina[pil]</td>
<td>STEAL</td>
<td></td>
</tr>
</tbody>
</table>
| *amore | *e | *
| *amo(sa)i | eceka | BITE |
| *omo(sa)i | eccma | PATH |
| anhta | e(c)ena | THROAT |
| anja | eci | BE |
| anota | *ehipi | LIP |
| apa, apa | *(e)jahta | ARMPIT |
| apaci | *(e)jeceti | NAME |
| apai, apai | ekarama | GIVE |
| apari | ekunu, akunu | HIP |
| apari(t/c)/(i)i;kv | ekurima | COMB1 |
| apumaka | ema | THROW |
| *apuru | emci | DAUGHTER |
| aarama | empa | TEACH |
| ariwe | empata, ampata | FACE |
| arawara | emekunu, | |
| ari | amekunu | WRIST |
| aroki, oroki | emu, smu | SCROTUM |
| atumcaka | ena[pil] | EAT.FRUIT |
| atunu | ene | SEE |
| *(a/a)ti | ene[pil] | BRING |
| awo | eni[ri] | DRINK2 |
| awoti | enja, anja | HAND |

**Notes:**
- *entu: BASE
- *cema: PATH
- *e[ci]: BE
- *ehipi: LIP
- *(e)jahta: ARMPIT
- *(e)jeceti: NAME
- *ekarama: GIVE
- *ekunu, akunu: HIP
- *ekurima: COMB1
- *emci: DAUGHTER
- *empa: TEACH
- *emekunu: WRIST
- *enamel: SCROTUM
- *(a/a)ti: BRING
- *eni[ri]: DRINK2
- *(a)ti: WHO
- *(a/a)ti: HERON
- *ecerawa: THREE
- *ecakama: TWO
- *(a/ci): WHITHER
- *(a)ci: COME
- *(a)ciwa: HUNT
- *(a)kai: SNAKE
- *(a/m): YOU (2)
- *(a)macina: THORN
- *(a)me: EAT.MEAT
- *(a)ki: WHO
- *(a)l: SLEEP
- *(a)ma: YOU (2col)
- *(a)ntma: HERON2
*aoko .......... CURASSOW
*apai .......... SEAT
*api (epi?) .... TRUNK
*aremi .......... SONG
*arencita (?) ... SMOKE
*ariná .......... CLAY
*aripo .......... CASSAVA STONE
*aruka .......... CATERPILLAR
*awi .......... I (1)

*h

*hkawo .......... IN3
*hkak(a/i) ...... INTO2

*i

*i(-)cuhta ...... URINATE
*i(-)cuka ...... WASH
*i(-)je .......... MOTHER2
*ikutupa .......... LAKE
*i(-)menutua .... PAINT
*imi[i] .......... ROOT/VEIN
*i[m] .......... TIE
*ineku .......... TIMBÓ
*irakâ .......... ANT
*ira .......... IT (3In)
*itu(h) .......... FOREST
*iwana .......... CHAMELEON
*(i/i)(-)unta .... ARRIVE
*(i)wa .......... GO.GET
*iwiri .......... CAPIVARA

*j

*ja(p/c)ami ... LOUSE
*jaramata /
jamara ... CHIN
*jatu .......... BURN
*jawi .......... OTTER1
*je .......... TOOTH
*jetipa .......... BONE
*joci .......... LIZARD
*jumu .......... FATHER2

*k

*ka .............. SAY
*kaenano ...... NEW
*kaiku ... JAGUAR
*kajaká .......... DEER2
*(h)kak(a/i) ..... INTO2
*kananamano .. YELLOW
*kanawa .......... CANOE
*kapaci .......... ARMADILLO
*kapu .......... SKY
*karau .......... INGÁ
*kariwa .......... GOURD
*kati .......... FAT
*kawo .......... HIGH
*ke .......... WITH2
*kewei .......... FISHHOOK
*koci .......... FEVER/COLD
*kahtu[mu] ... SHOUT
*ki .......... GRADE
*kima .......... WE1 (1+2)
*kinjamo ...... WE2 (1+2col)
*kinoro .......... MACAW
*(k/g)iri ....... MAN
*koko .......... NIGHT
*kokonjara .. YESTERDAY
*kokonje ......... AFTERNOON
*kokonkarö .... MORNING
*ko:ma[m]i .... NIGHT.FALL
*konopo .......... RAIN
*kuku .......... GRANDMOTHER
*kumu .......... BACABA
*kunepepe ...... MILPEDE
*kure, kurano .. GOOD
*kurica .......... TORTOISE
*kurima(u/o) ... PACA
*kurumaka ....... PAINFUL

*manare .......... SIEVE
*manati .......... BREAST2
*man(j)icv ..... ANKLE
*mapiri .......... PIUM
*mapoto .......... FIRE
*maraka .......... RATTLE
*mar(a/t)ci ... JACU
*mará .......... WITH1
*maripa .......... INAJÁ
*matapi .......... TIPITI
*mauru .......... COTTON
*menú .......... JENIPAPO
*meri .......... COATIPURO
*ma(c)e ..... THIS3
*ma(c)ecamo ..... THESE
*ma(jamo) ...... THOSE1
*makijamo ...... THOSE2
*makì .......... THAT1
*makiru .......... THAT4
*[(ma)ma[ki/i][j] .. WAIT
*mani .......... THAT3
*mará .......... THAT2
*miljo .......... HUSBAND
*mi(k/c) ... CAT
*mi[ka] .......... BACK
*minata .......... SCORPION
*minoto .......... PREGNANT
*minwa .......... HOUSE2
*mi[p/c]a .......... LONG
*mi[pa] ........ SHOULDER
*mi[ta] .......... MOUTH
*mo .......... BREAK
*m(a/o)iti ...... RELATIVES
*mjoci .......... SPIDER1
*moni .......... GROIN
*mono .......... BIG
*mota .......... SHOULDER
*moti .......... PUBIC HAIR
*moto .......... WORM
*munju .......... BLOOD
*munjupa .......... RAT
*[mu]muku .......... CHILD2/SON
*mure,m(u/i)rehti .... CHILD1
*n
*namo(ro) THEIY
*narafwa YAM
*napi POTATO
*na[m(m/o)] LEAVE
*nare S/HE (3An)
*nkafo STILL
*nono EARTH
*nore TONGUE
*notipa OLD WOMAN
*nunna MOON

*o
*okomo WASP
*ona[m/i] BURY
*oroci CASHEW

*p
*pa AGAIN
*paci ACOUCHY
*pakara SUITCASE
*pakira PECCARY1
*pakoro HOUSE1
*paku PACU
*pana EAR
*papa FATHER1
*(p/m)ap(a)(i)ca.. PAPAYA
*pa(n) GRANDCHILD
*pa:ru ru) BANANA
*pata VILLAGE
*patakaci TRAÍRA
*pena LONG.AGO
*pepeci WIND
*peti THIGH
*psainaka PECCARY2
*pako ABOUT
*pama PEPPER
*pane PIRANHA
*patuna INAMBU
*pica LITTLE
*picaku BRAIN
*pijana HAWK
*pipi OLDER

*piipa SKIN
*pijaci LEG
*pim(a/i) NECK
*[pi]mo EGG
*pi(pi?) MOUNTAIN
*[pi]repap SHAMAN
*pirap ARROW
*[p(i/o)]ropi CHEST
*[pi]la SOLE
*piiti WIFE
*p(i/u)tiki ANUS
*po CLOTHES
*po IN2
*pona TO2
*poni NAVAL
*pono[pi] TELL
*po(h/n)pa DRESS
*poi BEAK
*poka UNDRESS
*pu:ka BLOW
*puna[pi] THINK
*punu FLESH
*pupu FOOT
*putupa HEAD

*r
*rere BAT
*rcti HORN
*r(a/e)kene ONLY
*rupeci JACURARU

*t
*tace BY
*t(a/e)kene HERE
*take NOT1
*taka INTO1
*tana YONDER
*ta(c/h)mi:re RED
*tamoko, tamu .. GRANDFATHER
*tamutupa OLD MAN
*taw.. IN1
*ta(3/e)!in(j)e ONE

ta[m]i GO
*tapu STONE
*t(u/u)juice DIRTY
*tintic(c/e) SHORT
*[ti]ri MAKE
*toron /
*tonoro BIRD
*tukuci HUMMINGBIRD
*tuna WATER
*turi TORCH

*w
*(w):a:kene NOT2
*wa:kU BELLY
*w(a/a)ka(c)i .. COMB2
*wapu ACAÍ
*wapo BEFORE
*wara HERON1
*(w):arekore SLOTH
*(w)a:r(i/i)c ANTEATER
*wa:ra KNOW
*wata, weti EXCREMENT
*we:kai FART
*wei SUN
*weka DEFECATE
*we(:)naru VOMIT
*(w):erecm(n/a) .. KNEE
*werkere FLY
*we:tu WOODPECKER
*we:we TREE/WOOD
*we:ki OLDER SISTER
*war(i/i)ici WOMAN
*(w):i)puce ANATTO
*wi: MANIOC
*wi:ga, oja, ja .. TOI
*(wi)kapa(u/o) .. DEER1
*[wi]:pa BOW
*witototo PERSON
*wi:wi AX
*wo:kii DRINK
*womi VOICE
*wompa SPEAK
*wo:wi SAVANNA
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