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Evidence for the Identification of Carabayo, the Language of an Uncontacted People of the Colombian Amazon, as Belonging to the Tikuna-Yurí Linguistic Family

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Abstract

This paper provides evidence for the identification of the language of the uncontacted indigenous group called Carabayo, who live in voluntary isolation in the Colombian Amazon region. The only linguistic data available from this group is a set of about 50 words, most of them without reliable translations, that were collected in 1969 during a brief encounter with one Carabayo family. We compare this material with various languages (once) spoken in the region, showing that four attested Carabayo forms (a first person singular prefix and words for 'warm', 'father', and 'boy') display striking similarities with Yurí and at least 13 Carabayo forms display clear correspondences with contemporary Tikuna. Tikuna and Yurí are the only two known members of the Tikuna-Yurí linguistic family. Yurí was documented in the 19th century but has been thought to have become extinct since. We conclude that the Carabayo – directly or indirectly – descend from the Yurí people whose language and customs were described by explorers in the 19th century, before they took up voluntary isolation, escaping atrocities during the rubber boom in the early 20th century.

Introduction

There are still around 100 uncontacted indigenous groups around the world, and a few dozen of them in the Amazonian rainforest, according to the NGO Survival International (http://www.survivalinternational.org/tribes). Most of these groups are known to be closely related linguistically and culturally to groups already contacted. However, not much more than their mere existence is known about some of them. This is the case for the Carabayo people who live in the remote upper River Puré and River Bernardo region in the Colombian Amazon rainforest. The name Carabayo derives from the (mock) name “Bernardo Caraballo”, which was given to a Carabayo man by local people during a brief encounter in the Colombian town La Pedrera (Bernardo Caraballo was the name of a Colombian boxing champion). Subsequently the Carabayo people and their language have been referred to as Caraballo [1,2]. The 2013 Ethnologue language catalogue [3] introduced Carabayo as an English version of the language name, and assigned the ISO 639-3 code cby to it.

In the current study, we analyze the only linguistic data available from this group, around 50 words that were overheard and noted down during a brief encounter with one Carabayo family in 1969, showing that the Carabayo most likely speak a language closely related to Yurí (also spelled Juri) as well as to Tikuna, which have previously been shown to be related to each other [2,4–7]. The Yurí language was documented in four wordlists in the 19th century but had been presumed to have become extinct since. Tikuna is still spoken by about 40,000 speakers, mostly along the Amazon River in Peru, Colombia, and Brazil. If Carabayo is relatively closely related to both of these languages, as we suggest here, one possibility would be that it may be part of a former dialect continuum circumscribed by the Tikuna and Yuri languages.

Our study substantiates previous claims of a link between Carabayo and Yuri that were either based on limited data and non-rigorous methods [8] or did not substantiate this claim with linguistic data at all [9,10]. We also substantiate the existence of similarities between Carabayo and Tikuna that were noted by Goulard & Montes Rodriguez [2] based on incomplete Carabayo materials which they considered to be too poor to draw any further conclusions. Our identification is based on a comparison of all available Carabayo data (from three different sources) with, firstly, four Yuri wordlists collected in the early to mid-19th century, one of which has only recently become accessible [11]; Natterer’s Yuri wordlist was thought to have been destroyed in a fire in Vienna in 1848, until it was discovered in the late 1970s by Ferdinand Anders in the University Library of Basle. The handwritten manuscript has recently been transcribed by Hélène B. Brijnen at Leiden University. Incidentally, the Carabayo wordlist [12] was also not accessible [13] until recently, because the Capuchin missionary publication Amanecer Amazonico, in which it was published, was not distributed widely. Additionally, the issue of Amanecer Amazonico that contains the Yuri wordlist is missing in both the Capuchin missionary archive in Leticia and in the
national library of Colombia, the Biblioteca Luis Ángel Arango in Bogotá. It was eventually located by the first author in the Arxiu Provincial dels Capucins de Catalunya in Sarrià, Barcelona.) Secondly, we compare Carabayo with contemporary Tikuna data provided by a native speaker of Tikuna. Our identification of the relationship of Carabayo with Yuri and Tikuna also implies that Tikuna should no longer be considered a language isolate with no living relatives [3].

The nature and scarcity of the available Carabayo data implies that standard methods for identifying languages – e.g. by frequent sequences of sounds or letters [14] – or for establishing genealogical relations between languages – e.g. by regular sound changes in sets of cognate words [15] – cannot be applied straightforwardly. Our analysis of the available Carabayo data thus draws on a variety of methods to derive evidence for the likelihood of an identification of Carabayo. These include phoneme frequency counts, semantic extensions of words, taking into account the context in which Carabayo words occurred, morphological composition of words, and the relative borrowability of different sections of vocabulary.

The Carabayo material investigated here was collected in 1969 from people who live in the upper River Puré/upper River Bernardo area, between the Putumayo and Caquetá rivers in the Colombian Amazon region [16]. In early 1969, a local Colombian and a local Miraña Indian undertook an expedition to the Carabayo’s territory. When they did not return, a military commission that was sent to rescue them made violent contact with the Carabayo people and took one family hostage. This family, consisting of an adult couple and three children, was then held in the boarding school of the Capuchin mission in the Colombian town La Pedrera for a few weeks before they were ‘repatriated’. During this encounter, the Carabayo data analyzed here were collected. Since then, Carabayo people and traces of them have been sighted on various occasions, primarily by members of the cocaine mafia and guerilla fighters [16]. The most recent evidence of the Carabayo’s persistence are aerial photographs of their roundhouses taken in 2010 [16].

We strongly disapprove of the circumstances under which Carabayo data were collected. We hope that our study of the Carabayo material that was published in reports of these dire events contributes to the protection of the Carabayo people, in line with, for example, Survival International’s policy of making knowledge about uncontacted peoples public in order to raise awareness of the threats they are facing. In 2002, the Río Puré National Park was created to protect the Carabayo’s territory. In addition, a legal decree passed in 2011 guarantees uncontacted peoples in Colombia such as the Carabayo the rights to their voluntary isolation, their traditional territories, and repatriations if they face violence from outsiders.

Since the language of the Carabayo was unintelligible to any of the indigenous peoples present in La Pedrera in 1969, it is a mystery as to who the Carabayo are. Trupp [9] and Landaburu [10] have hypothesized that the Carabayo people might be descendants of the Yuri, without, however, discussing linguistic evidence [13]. They were apparently not aware of Vidal y Pinell’s [8] attempt to analyze the Carabayo data published by Juan Bermichms de Felanix [17]. (Note that names of Capuchin monks are composed of a religious name followed by the place of their origin and that they are offered alphabetically by the religious name, following the conventions established by the Lexicon Capucinum [18].) The secular name of Juan Bermichms de Felanix was Antonio Font.) Vidal y Pinell concluded that the language of the Carabayo corresponds to Yuri, based on two arguments. Firstly, he suggests that three items from a Yuri wordlist by Wallace [19] correspond to items collected from Carabayo in 1969 by Juan Bermichms de Felanix [17]. Secondly, Vidal y Pinell [8] compared the frequencies of the sound f, which he considered the most “representative” phoneme in Wallace’s Yuri data, in Carabayo, Yuri, and various other languages spoken in the region, for which Wallace [19] also provides wordlists. He found that it occurs in 23% of the words in Wallace’s Yuri word list (18/77) and in 21% of the words from Juan Bermichms de Felanix’s Carabayo list (7/33), but in maximally 8% of the words of Kubeo, Tucano, Kuureta, Tariana, and Baniwa. From these two pieces of evidence, Vidal y Pinell [8] concludes that the Carabayo that were sighted in 1969 are descendants of the Yuri, documented by Wallace around 1850. The current study support the hypotheses of a genealogical link between Carabayo and Yuri, based on a much more detailed discussion of potentially cognate forms. Crucially, this discussion is based not only on Yuri data collected by Wallace but also on Yuri data collected by Spix, Martius, and Natterer. In addition, we include correspondences with contemporary Tikuna in our discussion.

Materials and Methods

For the purpose of the current study, all attested linguistic material reported for the Carabayo family in 1969 has been gathered (Table 1). Most of it is from the list published by Juan Bermichms de Felanix [17]. A few additional items are interspersed in two descriptions of the encounter with the Carabayo in 1969: One by Juan Bermichms de Felanix himself [20] and another by Venanci d’Arenys de Mar [21]. These items include four clearly Spanish words that the Carabayo reportedly used but that were apparently learned during the brief encounter, i.e. tabako (item 1) and karafyayo to comes from item 27, which probably correspond to the Spanish-based name given to the Carabayo man by the people of La Pedrera and to Spanish tu comes ‘you eat’. Excluding these four words, there are a total of 55 word tokens. Within these, one word occurs twice (uro, item 6), two three times (jaa, items 3, 7; kariba, items 3, 5, 28), and one four times (ane, after merging n and nn, see below, items 29, 30, 35), i.e. there are 48 word types in the data. Two elements in the list are of Nheengatu (Tupian) origin, which was the lingua franca used in the area in the 17 h, 18th and 19th centuries. These are kariba ‘white man’ (items 3, 5, 28), and tupana ‘God’ (item 23).

Juan Bermichms de Felanix [17] notes that the translations he provides are very hypothetical, in fact mere guesses, given that he and the Carabayo had no common language. Juan Bermichms de Felanix was a native speaker of Catalan and fluent in Spanish. His publication with the Carabayo vocabulary was written in Spanish and meant for a Spanish-speaking readership. We thus assume that the phonetic values of the consonants and vowels in his representation of Carabayo correspond to those of Spanish graphemes and the Carabayo material was transliterated to IPA symbols accordingly. Additionally, x (item 21) was transliterated as j, following the pronunciation rules of Catalan, Juan Bermichms de Felanix’s native language, since j has no graphic representation in Spanish. We transliterated / as based on his remark that it stands for ‘e neutra francesa [neutral French e]’ [17]. An acute accent appears in only four items (7, 9 = 18, 10, and 29 = 30). This suggests that whatever it may represent, it was not systematically marked. Therefore we disregard it for establishing hypothetical phoneme inventory.

Tables 2 and 3 are hypothetical phoneme charts of Carabayo with indications of phoneme frequencies in the extant data. Some aspects of this hypothetical phonology must remain uncertain because a few putative phonemes occur only once or twice (in
parentheses in Tables 2–3). Therefore, it is doubtful whether geminates, aspirated consonants, and long vowels really exist in Carabayo. Note that the absence of s is confirmed by Juan Berchmans de Felanix's [17] observation that the Carabayo man pronounced Spanish very well, except for s, which he pronounced as f. Despite the scarcity of the data, Tables 2 and 3 represent what might be a perfectly plausible and also typically Amazonian phoneme system, suggesting that a comparative analysis can reasonably be carried out with these data.

Can we tell from this material whether the Carabayo language is related in any way to any other known language? One hypothesis would be that they speak a closely related variant of a living language. This appears to be the case in neighboring Peru, where most uncontacted groups are linguistically related to groups already contacted, which allows one to have some degree of

| Carabayo | gloss, explanation, or context | source |
|----------|--------------------------------|--------|
| 1 tabako | ‘tobacco’ | [20] |
| 2 hako   | at being frightened by dogs; ‘bite’ according to Juan Berchmans de Felanix [17] | [17,20] |
| 3 ja kariba, ja irobe | shouted at white people by an old woman during the occupation of her house. Castro Caycedo [30] reports that Carabayo contacted on a path shouted kariba, kariba ne | [20] |
| 4 ja | ‘no’ | [17,21] |
| 5 kariba | ‘white man’ | [17,21,30] |
| 6 uro, uro | when meeting a white man in the bush, pointing at direction opposite to where he came from | [20] |
| 7 ja-nauue | ‘give me, show me’ | [17] |
| 8 gudda | ‘wait’ | [17] |
| 9 agó | ‘bring’ | [17] |
| 10 amá | ‘come’ (Spanish siga) | [17] |
| 11 ao | how the children call their father | [17] |
| 12 aua | calling a child | [17] |
| 13 gu | ‘yes’ | [17] |
| 14 hono | ‘boy’ | [17] |
| 15 ja | ‘out’, maybe based on item 03 | [17] |
| 16 pama | ‘there, look!’ | [17] |
| 17 ping | ‘shrimp/prawn’ | [17] |
| 18 ping-gó | ‘bring shrimp/prawn’ (see items 09, 17) | [17] |
| 19 t’fauameni | ‘good, well, like’ | [17] |
| 20 t’fauonjle | ‘warm me!’ (the speaker ordered a child to warm his hands with fire and apply them to his body) | [17] |
| 21 jama | ‘enough!’ | [17] |
| 22 alo | ‘come!’ | [17] |
| 23 tupana | ‘God’ | [21] |
| 24 jakoma | boy’s name; according to Bergès [26] the autodenomination of the Carabayo is yacumo. | [21] |
| 25 jakomanate | man’s name | [21] |
| 26 jégo | ‘child(ren)’, used by Carabayo woman addressing (two of) her children | [21] |
| 27 oro kami karajayo to comes | ‘give me meat, Carabayo wants to eat’ | [21] |
| 28 kariba dimene | during forced walk through jungle, dimene means ‘kill’ according to Juan Berchmans de Felanix [17] | [17,20] |
| 29 ané ui korot | / | [17] |
| 30 ané uikarso | / | [17] |
| 31 an to o neko | / | [17] |
| 32 bajaneku | / | [17] |
| 33 ekoneko | / | [17] |
| 34 ekoneko pikhu | / | [17] |
| 35 erikanne anne | / | [17] |
| 36 etamenita | / | [17] |
| 37 ladajareu | / | [17] |
| 38 jua nekon | / | [17] |
| 39 nenerigu | / | [17] |
| 40 t’fauiba t’futaiba | / | [17] |
Table 2. Carabayo consonants.

|        | bilabial | alveolar | palatal | velar | glottal |
|--------|----------|----------|---------|-------|---------|
| plosive| b₂       | p₃       | (d₂)    | t₄    | g₆      |
| (plosive geminate) |           |          |         |       | k₁₃     |
| (plosive aspirated) |           |          |         |       | (kh₁)   |
| fricative | (β₂)     | j₅       | (k₁)    | (h₂)  |
| affricate |           | j₅       | (k₁)    | (h₂)  |
| approximant |           |          |         |       |         |
| nasal   | m₃       | n₃₂      | J₆      |
| nasal geminate | n₃₂      |          | J₆      |
| Flap    | r₁₁      |          |         |       |         |
| (liquid) | (β₂)     |          |         |       |         |

Subscript numbers represent frequency of occurrence of the phoneme in the corpus (phonemes in parentheses occur only once or twice).

Table 3. Carabayo vowels.

|        | i₁₅     | e₂₆     | o₂₂     |
|--------|---------|---------|---------|
| u₁₂    | (u₁₅)  | (u₁₅)  | (u₁₅)  |
| a₁₃    | (a₁₃)  | (a₁₃)  | (a₁₃)  |

Subscript numbers represent frequency of occurrence of the phoneme in the corpus (phonemes in parentheses occur only once or twice).

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previous knowledge of their language. However, in the case of the Carabayo, this is unlikely because, while the Carabayo family was held at La Pedrera, speakers of the following languages were asked to try to communicate with them, without success [8,20] (language names are given in standard spelling and with genealogical affiliation and ISO 639-3 codes: Andoke (isolate, ano), Muinane (Boran; boa), Witoto (Witotoan; two varieties: Mauff and ISO 639-3 codes); Andoke (isolate, ano), Muinane (Boran; boa), Witoto (Witotoan; three varieties: Maff and ISO 639-3 codes). These wordlists cover basic vocabulary and local fauna and flora terms.

Finally, it is also possible that the Carabayo speak a language that has never been documented. In this context it is noteworthy that a number of languages of the area were documented for the first time as late as the early 20th century, among them Ocaina, Nonuya, and Resigarro, showing that some languages remained unnoticed for a long time after the region had begun to be explored. However, during the 1930s, the indigenous groups of the Caquetá-Putumayo area of the Colombian Amazon region were surveyed in great detail by Capuchin missionaries, including the Ocainas, Nonuyas, and Resigarros [22,23]. Based on information from these surveys, Marcelino de Castellví and Espinosa Pérez [23] suggest that Yuri speakers persist in locations very close to where the Carabayo were sighted in 1969, without, however, giving linguistic data as evidence.

Results and Discussion

Our comparison of the Carabayo data with Coeruana, Coretú, Mura, Passé, Uaimuna, and Yuri revealed that a number of Carabayo forms match corresponding Yuri elements, but none match forms of the other languages. Among the Carabayo-Yuri correspondences is one that Vidal y Pinell [8] had identified, Carabayo ao ‘father’, as we discuss below. The other two Carabayo-Yuri correspondences given by Vidal y Pinell [8] do not hold up to scrutiny: He suggests that Carabayo anoa, which according to Juan Berchmans de Felanix [17] might mean ‘child’, corresponds to Wallace’s Yuri oøyu’ ‘son’. This correspondence seems far-fetched and cannot be confirmed by other Yuri forms such as o nne ‘son’, o ò h ‘child’, ta tana ‘boy’ (Natterer), aná ‘son’, ahé ‘child’ (Spix), or suuné (Spix). Incidentally, Wallace’s oøyu’ ‘son’ probably means ‘daughter’, rather than ‘son’, as the forms for ‘daughter’ given by the three other sources for Yuri suggest: zo ñabu (Natterer), tschіsцu (Martius), suabu (Spix). The first syllable in these three is the first person possessor marker.) Furthermore Vidal y
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Pinell [8] suggests that the Carabayo form nê, reported to mean ‘no’, corresponds to Wallace’s Yurí eek ‘bad’. Again, this seems far-fetched and cannot be confirmed by other Yurí forms for ‘no’: ka (Natterer), tseć (Martius), ghainà (Spix).

There are a number of other forms, however, that display intriguing correspondences between Carabayo and Yurí and that were not detected by Vidal y Pinell [8], partially because he did not have access to Martius’, Spix’s, and Natterer’s Yurí data. The relevant Carabayo and Yurí data are presented in Table 5.

Item 1 in Table 5 contains a complex form in which both elements correspond. The first element, tʃaw- is well attested in Yurí as a first person subject and possessor prefix. It appears in various spellings in Yurí data, e.g. tschau-, tschaw- (Martius), su- (Spix), and tocho- (Wallace). The apparent mismatch between first person subject form and second person reference in item 1 could easily have arisen due to the lack of a common language in the situation in which the form was noted by Juan Berchmans de Felanix [17]: It is common even in professional fieldwork elicitations that, for example, in response to a field worker asking for a translation of “I sit”, an informant provides a form meaning “you sit”, referring to the field worker. Alternatively, tʃaw- in item 1 may be an object pronoun followed by a prefixless imperative verb form in item 1. The second element, nofe ‘warm’ matches well with Wallace’s Yurí nore ‘warm’. It matches less well with Natterer’s form for ‘warm’, but within this form are is shared. Item 2 in Table 5 is a less clear case, but it might be argued that a first person singular form is likely to occur in a form translated as ‘like’.

The correspondences involving Carabayo tʃaw-, tʃu-, and tʃe proposed in items 3–5 in Table 5 are more hypothetical since no information on their meaning in Carabayo is available. However, they might contain further instances of the word-initial first person singular prefix. In Yurí, variants of tʃaw-, probably conditioned by the stem to which it is prefixed, are attested, primarily tʃu-, e.g. tschuu-‘back’/my elbow/ (Martius). The Carabayo words beginning with tʃaw-, tʃu-, and tʃe given in items 3–5 might thus well be nouns with a first person singular possessor prefix or verbs with a first person singular subject prefix that Juan Berchmans de Felanix [17] overheard from the conversations among the Carabayo. Note that the occurrence of tʃaw-, tʃu- is also responsible for the high frequency of tʃ in both Carabayo and Yurí, which Vidal y Pinell [8] noted.

Item 6 in Table 5, hono ‘boy’, constitutes a reasonably certain correspondence in terms of a sequence of a back rounded vowel (o or u) followed by n and possibly another, unidentified vowel, and is attested as such five times in the Yurí data, including attestations from three different sources. Item 7, Carabayo ao ‘father’, also matches reasonably well with Yurí data, as already noted by Vidal y Pinell [8], in terms of the initial vowel a and final vowel o, which alternates with u in the Yurí data. A form related to Yurí (h)ato, atu ‘father’ may also be identifiable in Carabayo jakomana‘, the Carabayo man’s name, when compared with jakoma, the Carabayo man’s eldest son’s name, according to Venanci d’Arenys de Mar [21] [items 24 and 25 in Table 1]. If one assumes that the first term literally means ‘Jakoma’s father’, then nate would mean ‘father’. This form matches attested Yurí forms relatively well, and it is strikingly similar to Tikuna (Yurí’s sister language) nãy ‘father’. The use of tekonyms is not attested for Tikuna or for other indigenous groups in the direct vicinity, but it is attested in other places in Amazonia. In any case, it seems clear that jakomana ‘is a complex form and it is likely that ~nate means ‘father’, even if the

| Table 4. Candidate languages for the identification of Carabayo. |
|---------------------------------------------------------------|
| **Language** | **Affiliation** | **Evidence for affiliation** |
| Coërune | possibly Witotoan | Koch-Grinberg [31], Loukotka [32] |
| Coretũ | Tucanoan | Loukotka [32] |
| Mura | Mura-[Pirahã] | Campbell & Grondona [33] |
| Passé | Arawakan | Ramirez [24] |
| Uainuma | Arawakan | Ramirez [24] |
| Yuri | Tikuna-Yurí | Carvalho [7], Goulard & Montes Rodriguez [2] |

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| Table 5. Summary of Carabayo and Yurí data compared. |
|-----------------------------------------------------|
| **CARABAYO** | **YURI MATERIAL COMPARED** |
| 1 | tʃaau-nofe ‘warm me’ | tʃau-+ nofe ‘warm’ (Wallace)/tsu tsderá ‘warm’ (Natterer) |
| 2 | tʃaau-ameni ‘good, well, like’ | tʃau-+ (su)méniko ‘(my) heart’ (Spix) |
| 3 | tʃaauiba | tʃau-+ (tschu)-bài ‘(my) back’ (Martius) |
| 4 | tʃuuliba | tʃau-+ tsabì (Martius) ‘body’/tsaibeboi (Martius) toipuy (Spix) ‘week’/tsaibeboi (Martius), toipuy (Spix), tai rôn i (Natterer) ‘night’ |
| 5 | æə tʃe o neko | æə (Natterer), ahre (Martius), aré (Spix), ahri (Wallace) ‘red’+ tschuuaiñaco ‘I bury’ (Martius)/tʃau + nîhçô ‘live’ (Martius)/tschu-míçko (Martius), suhibiñjho (Spix) ‘my testicles’ |
| 6 | hono ‘boy’ | a nñó ‘son’, o ñun ‘child’, ta ñuna ‘boy’ (Natterer), aon ‘son’ (Martius), sujuna ‘(my) son’ (Spix) |
| 7 | ao-nate ‘father’ | atu (Natterer), hatô (Martius), ható (Wallace), (su)átu ‘(my) father’ (Spix) |
| 8 | hako ‘well’ | hoko ‘I am fine, this is good’ (Natterer), okô (Martius) ukô (Spix) ‘beautiful’ |

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Carabayo do not employ a conventionalized system of teknonyms. Note that Venancy d’Arenys de Mar [21] claims that the Carabayo man called *jakomanate* was not the father of the oldest Carabayo boy, who was called *jakoma*, but maybe his brother, without, however, providing any evidence or further argumentation for this claim. This claim contradicts all other sources, who assume they were father and son, especially Bergès [26], who probably knew the Carabayo best. Even if they were not father and son, they may have used a teknonym since it has been observed elsewhere in Amazonia that teknonyms are applied among relatives or people living together [27].

The Carabayo expression in item 8 in Table 5 is translated in Juan Berchmans de Felanix [17] as ‘bites’. However, the context where this word was recorded is described by Juan Berchmans de Felanix [20] as follows: Shortly after the Carabayo family was captured, they were led, bound, through the jungle. When they arrived at a place where the commission had left their dogs behind, the Carabayo family showed fear and repeated various times the word *hako* (“Al llegar al sitio donde estaban los perros, demostraron miedo, repitiendo distintas veces la palabra JACO” [20]). In this context it is possible that *hako* is some kind of interjection, especially because it was repeated various times. If so, it matches well with the Yuri form *hokó* which is given by Natterer as an equivalent of both ‘this is good’ [German *dies ist gut*] (contrasting with ‘this is not good’ [German *dies taugt nichts*], the preceding entry in Natterer’s list) and ‘I am fine’ [German *Mir geht es gut*] (apparently as an answer to ‘how are you?’ [German *Wie geht es dir*], the preceding entry in Natterer’s list). Natterer’s Yuri *hokó* probably corresponds to Martius’ Yuri *okó* and Spix’s Yuri *ukó*, both given as equivalents of ‘beautiful’ [Latin *pulcher* in the original list]. The fact that it appears in various contexts suggests that Yuri *hokó* is a more widely applicable expression that may be translated as ‘well’ and that can also be used as an interjection rather than a literal translation of the equivalents given by Martius, Spix, and Natterer. Our experience with indigenous people of the area suggests that it is not unlikely that the same expression would be used in the contexts described for Carabayo *hako* as well as in the ones described for Yuri *hokó*, *okó*, and *ukó*. For instance, the Bora people, the Yuri’s neighbors to the west, would use *tehdujuco*, which literally means ‘already like this’, in all of these contexts.

Additionally, we note that there are a number of further, far more hypothetical correspondences contained in the data summarized in Table 5. Firstly, Carabayo *mení* (item 2) may correspond to Yuri *mímiko* ‘heart’ if one assumes that an expression translated as ‘good, well, like’ would be expressed as ‘pleases’ my heart’. Furthermore, in the Carabayo material for which no translation at all is provided, a number of forms can be identified that match Yuri forms, as noted in Table 5. For instance, *oq* in item 5 may correspond to Yuri *are* ‘red’, which is well attested in various sources for Yuri.

The two Nheengatu elements in Carabayo, *karíba* ‘white man’ and *tupana* ‘God’ are also attested in Yuri data: *kalibá* (Natterer) and *tupana* (Martius). These correspondences do not provide evidence for an identification of Carabayo with Yuri because both items are widespread among languages of the region. However, the exact match between Yuri *tupana* (Martius) and Carabayo *tupana* is noteworthy, given that this form was apparently phonologically nativized differently in Coeruna, as *tobí*, and in Mura, as *tupau*. For Uaimuma, *tupana* is reported, as well. For the other two candidate languages, words for ‘God’ which are non-related and probably native are documented, i.e. *pokên* for Passé and *namipalaitar* for Coretti. No forms corresponding to *karíba* are attested in any of the candidate languages, except for Yuri, due to
the fact that there were no entries for this concept in the wordlist template that Martius, Spix, and Wallace used.

In summary, we can identify in Carabayo data four forms that match corresponding Yuri forms well: a first person singular prefix, and words for ‘warm’, ‘boy’, and ‘father’, in addition to a first person singular prefix, and words for ‘well!’. Additionally, the first recorded in the context ‘the speaker ordered a child to warm his hands with fire and apply them to his body’, ‘call a child’, ‘come here!, move!’, ‘quick!, hurry up!’, ‘bring!’ (3SG/bring) ‘bring shrimp!’ (see 3, 4).

Table 7. Carabayo-Tikuna correspondences (Abbreviations: SG – singular; PL – plural; # – word boundary; Ø – elision).

| CARABAYO   | TIKUNA   | Sound correspondences |
|------------|----------|-----------------------|
| 1          | g’aunem ‘good, well, like’ | gaun ‘na me nil (1sg/3sg/like/be) ‘like it’ (lit. ‘it is good to me’) |
| 2          | gudda ‘wait!’ | gadda ‘wait, not yet’ |
| 3          | pinda ‘shrimp’ | pinda ‘shrimp species (big, lives in creeks)’ |
| 4          | aga ‘bring!’ | aya ‘bring’ (3sg/bring) |
| (= 3+4)    | pinda-g’a ‘bring shrimp!’ | pinda-ya ‘bring shrimp’ |
| 5          | gu ‘yes’ | gaa ‘yes’ |
| 6          | ga ‘no’ | gaa ‘emphatic negation’ |
| 7          | -nate ‘father’ | -nate ‘father’ (exception to Ø-#n) |
| 8          | ama ‘come!’ | fima ‘let us follow’ |
| 9          | pama ‘there, look!’ | pama ‘Quick!, Hurry up!’ |
| 10         | ao ‘children to call their father’ | ao ‘children to call their parents or parents to call children (affective)’ |
| 11         | fa ‘out’ | fa ‘3sg/out/out’ |
| 12         | aua ‘calling a child’ | aua ‘3sg (3sg/go) ‘come here, move!’ |
| 13         | fia-naaü ‘give me, show me’ | fia na aa ‘(exchange/3sg/lower) ‘lower it [e.g., your hand!’ |
| 14         | hal ‘bite’ | ja o ‘(exchange/eat) ‘eat’; na o ‘3sg/eat ‘he eats’ |
| 15         | fama ‘enough’ | tama ‘negation’; fama ‘1sg |
| 16         | dimene ‘kill’ | tgram ‘1sg (kill/assume) ‘our killers’; digmen ‘look!’ |

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Our comparison of Carabayo and Tikuna revealed a high number of very good matches between Tikuna and Carabayo, as summarized in Table 7. The Tikuna correspondences to Carabayo were provided by Abel Antonio Santos Angarita, a native speaker of Tikuna and trained linguist specializing in Tikuna dialectology [29], on inspection of the Carabayo material. These data contain at least 13 close correspondences. Among these, six items (numbers 1–7 in Table 7) constitute very good matches, both semantically and phonologically. Another six items (numbers 8–13 in Table 7) can be considered good matches. Another three items (numbers 14–16) are given here that match less well but are still worth considering (item 14 provides an alternative correspondence for halö). What adds credibility to the matches in Table 7 is that they exhibit regular sound correspondences between Carabayo and Tikuna, especially Carabayo g (or 1g) – Tikuna n and loss of word-initial s in Carabayo, both of which are attested in three well-matching pairs (counting also one case of loss of word-initial ñ). The matching elements include a number of items that are cross-linguistically very hard to borrow, especially first and third person pronouns and the verb ‘come’ [28]. Even for the other items, similarity is unlikely due to contact since there is a strong cultural avoidance of lexical borrowing in the entire region, and it is unlikely that the Carabayo would be an exception.

Thus the correspondences in Table 7 provide strong indications that Carabayo is genealogically related to Tikuna, but they cannot be taken as evidence for a closer relation with Tikuna than with Yuri, as the larger number of correspondences with Tikuna might suggest. In fact, we may expect a lower number of correspondences with the available Yuri data for a number of reasons. Firstly, Yuri is probably poorly represented, both phonologically and semantically, in the 19th-century data by travelers with no training in linguistics and probably no common language with the
Yuri they were interviewing. Secondly, with only a fixed list of Yuri words available, it is naturally much less likely to find matching elements than when a native Tikuna speaker actively searches correspondences to Carabayo items. Indeed, we have initial evidence that Carabayo shares features with Yuri but not with Tikuna, mainly /g (or k) in positions that correspond to Tikuna j, e.g. in Yuri ggo – Tikuna ngões ‘snake’ or Yuri kə ja – Tikuna ngág ‘Tinamus bird’. All this suggests that Yuri, Carabayo and the various dialects of Tikuna are genealogically related, with Carabayo somewhere in the middle between Yuri and Tikuna, but probably closer to Yuri. The ease with which Carabayo data could be interpreted by a native Tikuna speaker additionally suggests that these languages are relatively closely related and may even form – or have formed in the past – a dialect continuum.

Conclusions

This paper presents evidence suggesting that the Carabayo people, who live in voluntary isolation in the Colombian Amazon region, speak a language related to Yuri and also Tikuna, i.e. that they are – direct or indirect – descendants of the Yurís that travelers such as Martius, Spix, Wallace, and Natterer encountered in the 19th century. We were able to provide correspondences to almost all Carabayo items for which reasonably reliable glosses are available. The correspondences we find between Carabayo and Yuri, on the one hand, and Carabayo and Tikuna, on the other hand, are unlikely to be instances of borrowing from Yuri and Tikuna and thus likely to truly reflect a genealogical link.

With the accelerating loss of indigenous languages, it becomes increasingly difficult to gain any further knowledge of the pre-colonial linguistic landscape of Amazonia. However, our metacorpus study of Carabayo data from 1969 contributes to putting one language, Carabayo(-Yuri), back on the map, and to placing another language, Tikuna, back in a linguistic family, Tikuna-Yuri, of which it had been presumed to be the only surviving member. We hope that this study will also contribute to awareness of the existence of groups that avoid contact and especially of their right to be left in peace.

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Author Contributions

Analyzed the data: FS JAE. Wrote the paper: FS.

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