

On the lexical evidence for a genealogical relationship between múra-pirahã and matanawí¹

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ABSTRACT This paper shows that the lexical evidence in favor of a genealogical relation between Múra-Pirahã and Matanawí is stronger than so far suspected. It takes into account evidence from the full set of attested doculects making the Múra-Pirahã languoid. And, more importantly, it incorporates information about the nature of attested formal mismatches in evaluating the comparative sets that feature Matanawí lexical elements. I identify a series of formal/semantic matches in basic lexical meanings, in addition to pointing out plausible accounts for unmatched formal residue. Some tentative overlapping correspondences that suggest phonetically motivated diachronic splits are discussed as well. In the end, although the case for a relationship between Múra-Pirahã and Matanawí can be more strongly asserted, the very limited nature of the existing documentation of Matanawí probably precludes a more definite validation of the hypothesis.

KEYWORDS: Múra-Pirahã; Matanawí; Etymology; Relationship hypotheses

RESUMO: O presente trabalho mostra que a evidência lexical em favor de uma relação genética entre as línguas Múra-Pirahã e Matanawí é mais forte do que o reconhecido até o momento. A investigação parte de uma consideração de todas as fontes acerca do Múra-Pirahã, e, de maneira mais crucial, incorpora informação relevante para a avaliação das diferenças formais nos conjuntos de cognatos propostos. Discute-se aqui um grupo de comparações lexicais que apresentam similaridades de forma e de significado, sendo propostas, ainda, explicações para os casos em que há um resíduo formal não incluído nas comparações. Algumas correspondências segmentais sobrepostas, que sugerem cisões diacrônicas foneticamente condicionadas, são também discutidas. Ao fim, embora a hipótese de parentesco entre o Múra-Pirahã e o Matanawí possa agora ser considerada mais forte, a limitada documentação existente a respeito do Matanawí coloca um obstáculo definitivo para uma validação mais convincente da hipótese em questão.

PALAVRAS-CHAVE: Múra-Pirahã; Matanawí; Etimologia; Hipóteses de parentesco

1. Introduction

The hypothesis that Múra-Pirahã and Matanawí share a common ancestry has been either rejected (Seifart & Hammarström 2018) or accepted (Jolkesky 2016), without explicit argumentation or discussion of the available evidence.² This issue was addressed by Alves (2019). Using a set of quantitative, distance-based automatic procedures for estimating (dis)similarity in lexical comparisons of potentially related languages, he found a single, weak

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² Reference codes for the relevant languoids are: Múra-Pirahã (Glottocode: pira1253, ISO 639-3: myp) and Matanawí (Glottocode: mata1275). A separate glottocode is given for the Múra variety of Múra-Pirahã: mura1273.

lexical match between Múra-Pirahã and Matanawi translational equivalents. In his view, there is not enough evidence to support a genealogical relationship between these entities. Alves' negative conclusion has now been incorporated into the most up-to-date reference work on the classification of the languages of the continent (see Campbell 2024: 238-239). However, as the present paper's analysis demonstrates, the number of acceptable lexical matches between Múra-Pirahã and Matanawi is in fact larger, which makes the case for a relation between the two languages stronger than currently recognized in the published literature.³

The paper is organized as follows: Section 2 provides an overview of the Múra-Pirahã language, under the standard, currently accepted interpretation of this entity as a language isolate showing slight dialectal differentiation. Sub-section 2.1 presents the Pirahã lect, the sole Múra-Pirahã lect described by linguistically-trained individuals, a fact that grants it a pivotal position in the interpretation of the older recordings that comprise the Múra corpus. In 2.2 the reader is offered a brief overview of the (known) existing sources on the Múra lect, followed by a brief discussion of certain key facts in the orthographic conventions employed by each of them. This is again expected to offer the reader some guidance in interpreting the Múra forms that appear later in the paper.

The proposal of a genetic relationship between Múra-Pirahã and the poorly attested Matanawi language is introduced in section 3. After a discussion of the original proposal by Nimuendajú, and of its rather negative evaluation, both by Nimuendajú himself and more recently by Alves (2019), we proceed to take a fresh look at the data. A total of 11 comparative lexical sets are presented. Semantic and formal disparities — which stand as *prima facie* hindrances to the acceptance of the compared elements as cognate — are discussed. In most cases these are explained by reference to synchronically motivated morphological segmentations, or to known allophonic patterns, notably those described for modern Pirahã. Finally, section 4 is devoted to the conclusions of the paper. Overall, while the case for a Múra-Pirahã-Matanawi genealogical relationship is not as hopeless or as poorly supported as part of the published literature makes it seem, the fact that Matanawi is a poorly recorded extinct language critically limits the amount of evidence that one can muster in favor of the hypothesis.

2. Múra-Pirahã, an Amazonian isolate

Although some of the earliest literature on the now-famous Pirahã language considered it part of a 'Muran family' (Everett 1986), or of a 'Múra stock' (Loukotka 1968),⁴ a few dissenting voices, from the beginning of serious scientific inquiry, argued for the existence of a single, isolated language with a number of dialects. Nimuendajú (1948) considers the "Pirahã" (sic) as a subtribe of the Múra that speaks "a distinct dialect". He explicitly noted that the dialect spoken by the Pirahã and that of the Múra of the Manicoré river were mutually intelligible (Nimuendajú 1948: 266). This testimony of the great German-Brazilian ethnologist is significant, as he was likely the only scholar with direct access to speakers of both Pirahã and Múra, the two recognized dialects of the Múra-Pirahã language (see also Seifart &

³ The results reported in the present paper follow from a recent attempt by the author to approach the existing Múra-Pirahã data under a historical-comparative lens (see Carvalho 2025). In addition to presenting a revised and (from the 'lumper perspective') somewhat optimistic assessment of the Múra-Pirahã-Matanawi hypothesis, the paper also introduces to a broader audience a few key facts relevant to Múra-Pirahã linguistics, including naming conventions and the nature of the extant sources. These significant points might be useful to those interested in conducting further comparative research.

⁴ Terms like 'stock' and 'phylum' have been traditionally used in Americanist linguistics, alongside the more usual 'family' label, as a way to denote either more inclusive or less securely established genetic units (see Campbell 1997: 7-8 for discussion).

Hammarström 2018 for a modern statement of this view).⁵ Since the Múra lects are nowadays extinct, Nimuendajú's testimony becomes even more relevant.

The internal diversity of Múra-Pirahã requires clarification on several levels, the first of which is terminological. Loukotka (1968) recognized *Múra*, *Bohurá* (also *Buxwaray*), and *Pirahá* as members of his proposed Múra stock, also mentioning a *Yaháhi* language, though no information exists about it). Campbell (1997) recognizes a Muran family comprising Pirahã and the extinct Múra, Bohurá and Yahahí (Campbell 1997: 193). Here Campbell (1997) seems to have relied entirely on Loukotka (1968), as suggested by his use of the same glottonyms, despite minor typographical adjustments). However, as noted by Nimuendajú (1948), *Bohurá* is simply one of the orthographic renditions of the autonym of the people known otherwise as *Mura/Múra*.

Loukotka (1968) associates the label *Bohurá* specifically with the doculect recorded by Valle Bentes and published in Nimuendajú & Valle Bentes (1922). This association, however, lacks justification, as the publication itself identifies the language as *Múra*. Regarding *Yahahí* (and variants thereof), Nimuendajú (1948: 267), the main source on the early history of the Múra-Pirahã, notes that this is simply a label identifying one Múra subgroup that, while once independent, was assimilated as part of the Pirahã. For linguistic purposes, however, and independent of any evidence on the external history of these groups, the label *Yahahí* should be disregarded, as it is a *nomen nudum* - a name not tied to any linguistic data.

In sum, since *Bohurá* is not an independent label from *Múra*, and *Yahahí* is linguistically irrelevant, only the glottonyms *Múra* and *Pirahã* are necessary and sufficient for further linguistic investigation of this group, which is naturally referred to as *Múra-Pirahã*.⁶

2.1 Pirahã: The extant variety

This section offers a very general overview of Pirahã, the only Múra-Pirahã lect described by professionally trained linguists. Particular emphasis is placed on specific phonological patterns and phenomena that play out in the interpretation of older Múra sources (see Carvalho 2025 for extensive discussion), which, in many cases, provide the forms brought into comparison with Matanawí.⁷

The Pirahã, who number approximately 590 individuals (Siasi/Sesai 2014 census), inhabit the entire length of the Maici River, an affluent of the Marmelos River which is, in turn, a tributary of the Madeira, one of the largest tributaries of the Amazon. Although seasonal and cyclic rainfall regime affects their occupation along the riverbanks, some stable patterns in their spatial distribution are discernible. For instance, Everett (1986) identifies two Pirahã communities along the Maici River: A downriver community, more open to contact with foreigners, and a more reclusive group living upriver. Earlier, Nimuendajú (1948: 266) claimed

⁵ As reported by Nimuendajú (1925: 160), two of the native consultants who provided him with language data, Moreira and Thomé, were (at the time of their work with Nimuendajú) living as “refugees” (to use his own words) among the Pirahã of the Maicy (today, Maici) river. This is enough to show that he had plenty of opportunities to observe face-to-face interactions between Múra and Pirahã speakers.

⁶ That this clarification is necessary is demonstrated by the fact that Campbell (2024), the most up-to-date reference on the classification of the indigenous languages of South America, still presents all these labels (Campbell 2024: 240-241). The basic same view is found in Salles (2023: 957-8), the most recent book chapter on modern Pirahã.

⁷ We have at our disposal older yet very limited Pirahã data, recorded by Curt Nimuendajú and published in the same source for his first set of Múra data, that is, Nimuendajú (1925). He gathered this brief Pirahã wordlist in 1922 from two Pirahã men named Pariro and Miguel, at the lower Maixy (i.e. Maici) river. This material is of limited utility given the existence of modern descriptions of Pirahã, and it will be discussed a couple of times only in the remainder of the paper.

that the Pirahã “evidently always occupied its present habitat between lat. 6°25' and 7°10' S, along the lower Maicy River and at Estirão Grande do Marmellos, below this river's mouth”. Nimuendajú (1948) noted that the Pirahã have remained the least acculturated Múra sub-tribe and that, at the time of his writing, only a few unpublished notes and brief wordlists existed, all compiled by himself during his efforts to pacify the Parintintin.⁸

In broad typological terms, Pirahã exhibits an overall agglutinative morphological structure, favoring suffixes over prefixes (Salles 2023: 964ff). However, it is somewhat less synthetic than Amazonian language groups, such as Tupi-Guarani, Cariban and Arawakan, particular due to the lack of inflectional argument indexing in the verb complex, which, nonetheless, includes morphology for Tense, Aspect, Mood and Evidentiality (TAME) (Salles 2023: 969, 975).

Our understanding of Pirahã phonology comes from Sheldon (1976, 1988), Everett (1979, 1986) and Salles (2023). Heinrichs (1961, 1963) was also consulted and provided lexical data for the present study. The Pirahã consonantal inventory is simple, consisting of voiceless oral stops /p, t, k and ʔ/, two voiced oral stops /b, g/, and the fricatives /s, h/. The inclusion of /k/ in this inventory warrants discussion, since it is systematically excluded from the consonantal inventory in works such as Everett (1984: 612) and Everett (1986). Although Everett (1986) employs the symbol <k> throughout his discussion of Pirahã morphosyntax, we find, in the phonology section of his work, the statement that he has analyzed [k] as a “portmanteau” of the underlying sequence /hi/ (Everett 1986 :315).⁹ His justification is that “(...)whenever a k is found the sequence hi may also be found, idiolects tending to vary in the relative frequency with which k replaces hi” (Everett 1986: 315).

Pirahã syllable structure allows for CV, CVV and VV syllables (Everett 1979: 48-49). Note that onsetless syllables, although admitted medially, never appear word-initially, as a glottal stop [ʔ] is inserted providing these syllables with onsets (Everett 1979: 38-39). Moreover, syllable types must also be distinguished in terms of the voicing specification of the onset consonant: GV represents a voiced onset, while CV represents a voiceless onset. This distinction creates an onset-sensitive weight scale, CVV > GVV > VV > CV > GV, that affects stress placement.

Among the most relevant phonological patterns for the interpretation of the Múra sources is first, a rule of *obstruent gemination*, in which /p t k ʔ h/ lengthen word-medially (Sheldon 1976). For example: *ipi* → [ʔippi] 'tea'; *baitói* → [màittói] 'deer'; *kabíkoí* → [kàbíkkùí] 'it's over'; *baósaí* → [màússàí] 'cloth(es)'; *báaʔáá* → [báaʔʔáí] 'good, beautiful'; *baágahai* → [maágahhai] 'potato'.

Second comes a rule of palatalization that targets the two voiceless coronal obstruents of the language: *t* → [tʃ], and *s* → [ʃ], whenever *i* follows (Sheldon 1976; 1979: 104-105; Everett 1986: 315): *aiti* → [ʔàitʃ:i] 'cutia (rodent sp.)', *sibíoi* → [sibíoi ~ ʃibíoi] 'liver'. Note that the palatalization of *s* seems to be optional and variable (Everett 1979: 105), while that of *t* seems to be absolute. In the latter case, since there are no cases of morpheme-final *-t* that could be followed by heteromorphemic *-i* in some but not all contexts, the evidence for *t* → [tʃ] seems to be essentially distributional in nature (that is: There are no cases of *-t* ~ *-tʃ* alternation, and one must rely only on the fact that *t* is never found preceding *i*).

Of particular importance for interpretation of the existing Múra records is a third rule, one that optionally realizes the voiced stop *b* as [m] after pause, and *g* can occur as [n] in this

⁸ 'Parintintin' is the name of Tupi-Guarani-speaking group which belongs to the Kagwahiva dialect cluster. The Parintintin were the foremost enemies of the Pirahã.

⁹ I must note that Everett's use of the term *portmanteau* in this context sounds extremely non-standard, as the term is usually employed in linguistics for morphological blends or for polysemic morphemes. Nonetheless, it does convey the idea of a coalescence, however conceived, of the segmental sequence *hi* as surface [k].

same context. Thus: *baisohói* → [màissòhhói ~ bàissòhhói] 'cashew'; *giopai* → [niòppàí] 'dog'. In this case it would seem that both rules are optional, or at least exhibit fluctuations (Everett 1979: 105-106, 1984: 612). The same two segments exhibit two other allophones which are very rare typologically. The bilabial stop *b* is realized as a bilabial *vibrant/trill*, [B], preceding *o* (e.g., *ibogi* → [ʔiBògì] 'milk'), while *g* can be realized as a "double apico-alveolar/sublamino-labial egressive vibrant" when followed by *i* (e.g., *hiogiái* → [hìòǀiái] 'big'; Everett 1979: 105-106, 1986: 315).¹⁰

The Pirahã vowel inventory has only three contrastive segments, usually represented by their characteristic allophones as *i*, *a* and *o*. The high front vowel *i* has realizations over the range of [i, e, ɪ], and *o* is realized as a high back rounded vowel [u] when following *h* or [k] preceding *i*. In an instance of rhinoglottophilia, a recurrent pattern among Amazonian languages, any of the Pirahã vowels can be optionally nasalized following either *ʔ* or *h* (Everett 1986: 316).

In addition to the segmental inventories just discussed, the language has two contrastive (register) tones, H(igh) and L(ow).¹¹ Earlier sources on Pirahã, in particular Sheldon (1974, 1976), operate with a description in terms of three contrastive tones, adding a M(id) tone to the set. I will assume here the correctness of the two tone analysis of Everett (1979, 1986), but nothing crucial hinges on this fact.¹² Everett (1986: 312-315) gives a very thorough discussion of the surface restrictions on the distribution of tones in the language, though these will not be reviewed here as they have limited relevance for the comparative goals of the present study.

2.2 The Múra dialect(s)

Múra is documented in a series of lists of vocabulary items and short phrases that were gathered during a period spanning approximately one century (1819-1950). These lists were recorded by explorers, naturalists, missionaries and ethnologists. Some kind of pre-processing is, therefore, needed before the published Múra documentation can be used in a more rigorous manner for comparative research, and much of this pre-processing has been presented and discussed in Carvalho (2025). The list of published written sources on Múra, all of which are considered in the present study, is as follows (each source is identified by an alphanumeric code that refers to it):

(1) *The extant Múra sources:*

M67: A short vocabulary of 82 items recorded by the German naturalist and explorer Carl Friedrich Phillip von Martius near the island of Tupinambarana. The list was probably recorded in the end of 1819, and was published later in Martius (1867).

VB22: A vocabulary of 155 items recorded by the Brazilian engineer Euclides do Valle Bentes, in Manaus, in the year of 1921. Of these, 85 are identified as belonging to the Múra language as spoken in Autaz (a city at the mouth of the Madeira River), while the remainder 70 would constitute a sample of Múra as spoken in the Manicoré river. Published in Nimuendajú & Valle Bentes (1922).

¹⁰ I use here Everett's (1979) symbol for this later phone, [ǀ].

¹¹ Here I gloss over the issue of whether a single contrastive tone H could be posited for the language (i.e., a privative opposition between H and Ø), with surface L being realized in syllables without an underlying tonal specification.

¹² In this paper I will update the transcription of forms given in the sources that assume three tones in terms of the two tone system, with the following conventions: a H tone is indicated by an acute accent, a L tone bears no special mark.

N25: A longer list of 365 vocabulary items and short phrases recorded by the German-Brazilian ethnologist Curt (Unkel) Nimuendajú in 1922. These were taken from two Múra speakers, Moreira and Thomé, from the Salsal village at the Manicoré river (Nimuendajú 1925).

N32: The longest list, with approximately 526 items, including vocabulary items and short phrases, published in Nimuendajú (1932). They were recorded by consulting with three speakers: Augusto Curuba, of the Arary village in the lower Madeira River; Bodeco, of the Capivara village, at the Mamori river near Autaz, and Capitão Clementino, of the Murutinga village, also near the city of Autaz. No dates are given.

H50: Approximately 317 items, among words and short phrases, recorded by the Austrian ethnologist Wanda Hanke and published as Hanke (1950). The list is described as coming from the 'Mura of the Manicoré river'.

There are, then, at least 8 idiolects represented in the Múra lists available. The best data, in terms of both quantity and quality, is that in N25 and N32. The author, Curt Nimuendajú, was not only an experienced ethnographer already familiar with the transcription of unwritten non-Indo-European languages, but he provided explicit information on his native consultants (including sex and region of origin), employed an existing phonetic transcription system (a variant of the Lepsius alphabet), and provided an explicit key on the phonetic values of the specific set of symbols he employed. Moreover, Nimuendajú visited the Múra twice, first in 1922 and later in 1926 (see Faulhaber 2008), in contrast to the fleeting contact that the other recorders had with the same population.

The Martius' list is not entirely reliable, but it has the importance of being the earliest material available on the language. The forms making the list were probably recorded in September of 1819 when the expedition of Carl Friedrich Phillip von Martius and Johann Baptist von Spix travelled along the main course of the Amazon River through the island of Tupinambarana. The description of their encounters with the Múra appears in the volume 3 of *Reise in Brasilien* (Spix & Martius 1831), but the linguistic data appeared much later, in 1867, in the second volume of Martius' *Beiträge zur Ethnographie und Sprachenkunde Amerikas zumal Brasiliens*, published 21 years after Spix's death (Martius 1867). The M67 orthography is unsurprisingly based on German conventions, as seen in the use of complex graphemes such as <tsch> and <ä>. There are, however, inconsistencies in the use of different representations for what the comparative evidence suggests were the same sounds, and the recording of some phonetic regularities, revealed by a comparison to modern Pirahã data, is not entirely systematic either. Nevertheless, comparative reconstitution suggests that it is surprisingly accurate as it concerns the register of certain phonetic properties, in particular nasalization and obstruent gemination (see Carvalho 2025).¹³

VB22 is arguably the least reliable source as far as the transcription is concerned.¹⁴ It provides no transcription key, but seems to employ a variant of Brazilian Portuguese orthographic conventions, with some *ad hoc* modifications of its own. Features of the VB22 transcription that betray a reliance on Brazilian Portuguese orthographic conventions include the use of a circumflex diacritic above <e> only, while <a> and <i> bear an acute mark (in all these cases these diacritics seem to indicate perceived prominences), and the use of both <x> and <ch> to represent what likely was a voiceless alveo-palatal fricative [ç], and a single

¹³ The linguistic records left by the expedition of Spix and Martius are often harshly criticized for their inaccuracies. These criticisms, however, are seldom accompanied by a careful study of these records, even when closely related dialects are available for comparison (see e.g., Ramirez 2001: 21).

¹⁴ We have not found any biographic information on Euclides Henrique do Valle Bentes, the man who recorded VB22. There is, therefore, no information on his educational or linguistic background, but since Nimuendajú & Valle Bentes (1922) describes him as "an engineer", it is reasonably safe to suppose that he was not professionally invested either in linguistic analysis or in the study of indigenous peoples and their cultures.

instance of <ç> for [s]. Since the use of these graphemes in Brazilian Portuguese orthography is not phonetically transparent, being based, on the contrary, on item-specific conventions reflecting etymological pronunciation, the use of these elements for transcribing another language reveals, in addition, a needless lack of consistency on the transcription system, as there are no grounds for selecting, say, either <x> or <ch> for recording any given instance of [ʃ]. Other issues with the interpretation of VB22 will be tackled below in relation to palatalization processes. The source is, however, important for an examination of language contact involving Múra, as it seems to show an interesting amount of interference from Nheengatu (a Tupi-Guarani language, evolved from regional varieties of Old Tupi, and which served as the *de facto* vernacular and *lingua franca* for much of the Brazilian Amazon well into the late 19th century).

H50, the most recent Múra source, is important because of the lexical coverage which is more extensive than any other source in certain semantic domains (as in body part terms). H50 seems phonetically more reliable than VB22, though it follows VB22 in that its orthography is explicitly based on that of Portuguese, with a few clarifications using other languages/orthographic conventions for reference. As an example of the first we have <nh> with the value of a nasal palatal approximant, or of a nasal palatal stop ("A letra nh correspondente ao nh do português" (H50:3)); on <k> and <w>, a voiceless velar stop and a voiced labio-dental fricative, respectively, German is used as a reference ("Utiliso o k alemão, onde se ouve k, e igualmente uso o w" (H50:3)). Finally, a voiceless velar fricative is given as <jh>, and Spanish is the reference used ("para expressar a rj, como se pronuncia no espanhol" (H50:3)). Nevertheless, these explicit instructions on phonetic values do not cover all symbols employed. Like VB22, H50 offers no indication of the value of <->, which seems to indicate either a glottal stop or a vowel sequence which is not a long vowel (i.e., hiatus). Symbols like <y'> and <j> are not explicitly discussed.

As argued for at greater length in Carvalho 2025, despite their differences, all records of the Múra dialects display, in one way or another, a high level of orthographic overdifferentiation, at least from the perspective of an ideal phonemic transcription. In most cases, our knowledge of the phonology of modern Pirahã (see section 2.1) is enough to explain features of these records, but, due to their intrinsic nature, these same records are unable to reveal any phonological contrast that Múra might have had but which is not found in modern Pirahã. In the following, then, we assume that the same phonological outline presented in 2.1 applies to Múra as well. The reader is referred to Carvalho (2025) for further details on plausible indications of dialectal differentiation in the Múra documentation, mostly related to the varying implementation of allophonic processes described for modern Pirahã.

3. The Múra-Pirahã-Matanawi hypothesis

Curt (Unkel) Nimuendajú was the first to advance the hypothesis of a shared ancestry between Múra-Pirahã and the Matanawí language (Nimuendajú & Valle Bentes 1922), on the basis of a selected few lexical matches. Slightly later, in 1925, Nimuendajú published the full score of vocabulary material (plus a few short phrases) on Matanawí. This remains, to this day, the entire corpus available for the language.¹⁵ As to the proposed genetic kinship, Nimuendajú later changed his mind, stating that his own claim that Matanawi shares "a scant half-dozen words in common with the Mura does not mean that the two languages should be considered

¹⁵ The material was recorded from a single speaker, called João Comprido, who lived in the village of Surupy, in the lower course of the Marmellos river, in January and in November of 1922.

(...) as members of the same family” (Nimuendajú 1948: 258). This shift in perspective opens the door for further exploration of the hypothesis.

Although reliant on Loukotka (1968) for most of the glossonyms featuring in his presentation of the Múra-Pirahã dialects, Campbell (1997) does differ from Loukotka (1968), however, in that he recognizes the reality of a ‘Mura-Matanawian stock/family’ (Campbell 1997: 193), one that would join Múra-Pirahã and Matanawi as two branches. In a later book chapter that largely updates and supersedes his early views on South American linguistic classifications, Campbell (2012) seems to follow in the footsteps of Nimuendajú. Not only is Matanawi now considered an isolate (Campbell 2012: 70), but Campbell concludes that “(...) this grouping, though abandoned by Nimuendajú from whom it came, has been repeated in classifications from Rivet to Loukotka (...) though it probably should be abandoned” (Campbell 2012: 139). After Campbell (2012), the hypothesis of a relationship between Múra-Pirahã and Matanawi has been at times accepted (e.g., in Jolkesky 2016), at times rejected (e.g., Seifart & Hammarström 2018), but in no case was any kind of explicit argumentation provided in favor of either view. Finally, Campbell (2024) updates the statement that both Matanawí and Múra-Pirahã should be best considered language isolates, by adding Alves’ (2019) failure to find convincing evidence for a relationship between them (Campbell 2024: 238-239, 240-241).

The evidence featuring in the original proposal of a kinship between Múra-Pirahã and Matanawi is the following (adapted from Nimuendajú & Valle Bentes 1922: 221):

Table 1. Putative Múra-Matanawi cognates in Nimuendajú & Valle Bentes (1922)

Glosses	Múra (MUR)	Matanawi (MAT)
‘head’	<abbai>	<apa-zi>
‘arm’	<api-xi>	<api-yi>
‘bone’	<hane-haixi>	<aši>
‘hammock’	<apixi>	<apí>
‘axe’	<tachi>	<yaši>
‘sun’	<uicê>	<vi>
‘moon’	<ka-hia, kaiai>	<ka>
‘star’	<kaiai-xihi>	<wiši>

The comparisons in table 1,¹⁶ if advanced as evidence for a genealogical relationship, stand out as problematic to different degrees and for different reasons. Two of the sets involve easily diffusible names for cultural items (‘axe’ and ‘hammock’), and involve formal mismatches that remain unaccounted for - with the exception of the equation <tachi> : <yaši> ‘axe’, whose initial correspondence involving MUR *t* : MAT *j* (= <y>) may be possibly subsumed under a regular correspondence (see below). The comparison in the set for ‘star’ is vague, as it is not clear which are the segments proposed as matching. If this was all the evidence suggestive of a genealogical relationship, then one could, in fact, agree with the verdict of Seifart & Hammarström (2018) — and of Curt Nimuendajú — and consider the two languages unrelated. Nevertheless, as I hope to show in 3.1, the case for a relationship between these languages is in fact stronger, though necessarily less than conclusive due to the extreme limitations in the amount and the quality of the data available on Matanawi.

¹⁶ In this section I will use the abbreviations MUR = Múra, PIR = Pirahã and MAT = Matanawi when presenting comparative data and discussing correspondences.

As far as the state-of-art on the evaluation of this hypothesis is concerned, the work of Alves (2019) calls for special comment, as it is probably the sole study (after Nimuendajú & Valle Bentes 1922) that weighs in on the hypothesis of a genetic relationship between Múra-Pirahã and Matanawi by actually looking at the data (and, more importantly, by making it available to the reader). In the end, his conclusion regarding the plausibility of the hypothesis of a relationship between Múra-Pirahã and Matanawi is negative, thus agreeing with Nimuendajú (1948).

Alves' method consists, essentially, in the application of a simple tool for calculating string similarity (Alves 2019: 41-42). The workflow of his presentation is as follows: First, an application of the method to **accepted** language families (e.g., Arawakan); second, the derivation, from this first step, of a threshold level of similarity that characterizes such cases. In its third and final step, Alves seeks to evaluate how likely hypotheses of kinship between Matanawi and other languages are as a function of the relation between attested similarities and the estimated threshold. For the Múra-Pirahã-Matanawi hypothesis in particular, Alves reports a single comparison of semantically comparable forms that were deemed formally similar: the terms for 'arm', which Alves gives as Pirahã [apiji] and Matanawi [atoewe] (Alves 2019: 75). His overall conclusion is that the languages are not related, as a single comparison with a distance between 0 and 5 in his metric would not be enough to justify accepting such relationship (Alves 2019: 75).

Setting aside all the comments that could be offered about the pitfalls in the use of automated, distance-based metrics for estimating language relationships (see McMahon & McMahon 2005 for an extensive, book-length discussion, and Greenhill 2011), there are enough reasons to suggest that, despite Alves' efforts, further attention should be devoted to the problem of evaluating the data at hand. Note, first, that the author himself recognizes that his method for calculating distances among languages, which, in turn, constitutes his method for evaluating kinship hypotheses, is unable to identify even some close genetic relationships (Alves 2019: 75). As an example, the method was unable to detect the relationship between Mojeño Ignaciano and Paresi or Yine, all uncontroversial members of the Arawakan language family (Alves 2019: 71). Second, and perhaps more tellingly, a quick look at the appendix of Alves' work (Alves 2019: 84), where the Múra-Pirahã and Matanawi data used in his comparative study are presented, shows that some questionable decisions in the handling of the data might have contributed to the largely negative results of Alves' evaluation. In terms of the selection of the comparanda, Alves' use of [atoewe] as the Múra-Pirahã comparandum for the meaning 'arm' reveals that he has relied exclusively on Nimuendajú (1925) as his source of Múra-Pirahã data. As it happens, though, all other Múra-Pirahã sources (including those in 2.2 above, as well as modern Pirahã data) give a form for 'arm' which is more obviously comparable to Matanawi <apiyi>: <abbäsäh> (M67), <apixi> (VB22), <apijê> (H50).¹⁷ Second, a look at the comparative data used in Alves' study suggests that the relevant forms were compared without taking into account their morphological structures (see Alves 2019: 86). Rather than elaborating on this latter point, however, I will proceed now to a more careful and linguistically informed examination of some of the most promising lexical parallels involving translational equivalents in the Múra-Pirahã and Matanawi existing materials.

3.1 A new look at the evidence

Below follows a set of 11 comparative sets with Múra-Pirahã and Matanawi forms. These are presented in summary form in table 2, but will be discussed in greater detail in the

¹⁷ As shown in table 1, this set was included in the evidence amassed by Nimuendajú & Valle Bentes (1922) in the original proposal of the hypothesis.

remainder of the section. These putative etymologies should be understood as proposed Múra-Pirahã-Matanawi cognates; thus, if they stand scrutiny, the hypothesis of a genealogical relationship between these languages can be deemed supported. Table 2 is followed by commentary on the formal and semantic mismatches involved in each proposed comparison. The remarks are intended to show that the observed formal mismatches can be subsumed explained, or at least plausibly accounted for in a tentative manner, in view of our current understanding of Múra-Pirahã sound structure and morphology.

The comparative sets examined, and here presented as potential evidence of relationship, were those showing the most significant form-meaning similarities among the existing lexical material for Matanawi. As the language on which the least amount of attestation exists, Matanawi naturally sets an upper limit to the number of comparative sets that one might in principle assemble. All of the comparisons exemplify lexicostatistical matchings (i.e., with semantic identity or near-identity), and were selected because their glosses appear in one or more than one proposed lists of ‘basic meanings’. Underlined glosses appear in the first 100 most stable meanings in the Leipzig-Jakarta list (Tadmor et al. 2010) and in Swadesh's 100-item list; those in italics appear in the Swadesh list alone (note that ‘thigh’ is not given any special marking here, because, as discussed below, it is not a lexicostatistical match in the present case).¹⁸ The forms parts of each comparandum being targeted for comparison are highlighted in bold.

Table 2. Candidate cognates for Múra-Pirahã and Matanawi

Meaning	Múra-Pirahã	Matanawi
<u>water</u>	(i)pi	<apí>
<u>blood</u>	bú	<mû>
<u>fire</u>	hoai	<uá>
<i>head</i>	apai	<apa ɹi>
<u>tooth</u>	ai-to-pai	<ari ɹi>
thigh	atuai	<atura ɹi>
<i>tree</i>	ii	<i>
<i>bark</i>	ioi	<iuhō>
<u>tongue</u>	ipo	<ihu ɹi>
<u>egg</u>	ʔis-ito-i	<iyo>
<u>leaf</u>	ʔa-ita-i	<iyaá>

1. Water

PIR	<i>pì</i>	‘water’	(Everett 1986: 229)
MUR	<epé, ipê>	‘Agua’	(Nimuendajú & Valle Bentes 1922: 218)
MAT	<apí>	‘Agua’	(Nimuendajú 1925: 167)

¹⁸ The meanings represented in the glosses of table 2 are also part of other proposed lists of basic meanings, such as that proposed by Aaron Dolgopolsky and the list employed in the ASJP (Automated Similarity Judgement Program) (see Tadmor et al. (2010: 243)).

For ‘water’, a comparison of the modern Pirahã form directly with the Matanawi translational equivalent reveals a non-matching initial vowel in the latter form. As shown above, the Autaz variety of Múra, documented in the VB22 source, has an initial vowel that is lacking in the other Múra-Pirahã varieties, and this provides a candidate correspondence to initial <a-> in the Matanawi comparandum. Even if MUR <é, ê> is regarded as standing for IPA [e] (according to the Nimuendajú’s 1925: 148, 1932: 93 key for his transcription), or as standing for [e ~ ε] (a legitimate inference based on the overall reliance of VB22 on Portuguese orthographic conventions), the mismatch to PIR and MAT <i> carries little weight. As seen in section 2.1, modern Pirahã features a single phonemic front vowel, with a realization range including [i e ε], and the same could be inferred regarding MUR. As to MAT, <ĩ> indicates what Nimuendajú (1925: 148) describes as a ‘guttural vowel’, which usually stands, in his language materials, for vowels transcribed as [i i u] in modern sources.

2. Blood

PIR	<i>bií</i>	'blood' (Everett 2005: 627)	
MUR	<béé>	'Blut'	(Nimuendajú 1932: 94)
MUR	<bé>	'sangué'	(Nimuendajú 1925: 160)
MAT	<mĩ>	'sangué'	(Nimuendajú 1925:167)

The mismatch between Múra-Pirahã *b-* and Matanawi <m-> is trivial in view of the [b- ~ m-] variation documented in Múra-Pirahã (see section 2.1). The same applies to the differing front vowels, as noted above for ‘water’.

3. Fire

PIR	<i>hoái</i>	'fogo'	(Heinrichs 1961)
	<i>hwaí</i>	'fogo'	(Heinrichs 1963)
MUR	<uai, huai>	'fogo'	(Nimuendajú & Valle Bentes 1922: 218)
MUR	<huái>	'Feuer'	(Nimuendajú 1932: 95)
MAT	<uá>	'fogo'	(Nimuendajú 1925: 167)

Note that the mismatch between nouns having a final *-i* that is lacking in one or more languages, as in the case of the equation of the MUR and PIR forms for 'fire' with their presumed MAT cognate, does not present insurmountable obstacles to the validity of the comparisons. There are a number of (still poorly understood) morpho-phonological phenomena that eliminate final *-i* in many Pirahã nouns (see e.g., Sheldon 1976), and it is, in fact, common for Pirahã nouns to end in a high front vowel, which has suggested to some that these may have been independent nominal morphemes at some point in the history of Múra-Pirahã (see Everett 1986: 272). The fact that the MAT recorded word lacks a glottal fricative matching *h* in Múra-Pirahã will be commented upon below.

4. Head

PIR	<i>apai</i>	'cabeça'	(Heinrichs 1961)
MUR	<apae>	'Kopf'	(Nimuendajú 1932: 93)
MUR	<apái>	'Cabeça'	(Nimuendajú 1925: 160)
MAT	<apa zĩ>	'cabeça'	(Nimuendajú 1925: 166)

The comments in the set for 'fire' regarding final *-i* also apply here. A recurring feature of body part nouns in the Matanawi source (Nimuendajú 1925) is the occurrence of a final <zi> element, which looks suffixal in nature. This is most likely a marker for a 1sg possessor when used with nouns. Thus, one has: <hiná paréá> 'o arco delle' [his bow] vs. <paréá zi> 'meu arco' [my bow] (Nimuendajú 1925: 171), for <paréá> 'arco' [bow] (Nimuendajú 1925: 168).

One could propose, in fact, that MAT <zi> 'first person' is a cognate of Pirahã /ti/ [tʃi] and Múra <se, xi>, all with the same basic meaning (e.g., Múra <se ariá> 'mein Grossmutter' [my grandmother] (Nimuendajú 1932: 97)). The fact that Matanawi <zi> is found always postposed to the possessed noun is no obstacle, as this seems to be a possibility in Múra as well: <uúporaha se> 'Ich bin müde' [I am tired] (Nimuendajú 1932: 103), and, arguably, in VB22 <hanapai, apaixi> 'cabeça' [head] (Nimuendajú & Valle Bentes 1922: 218), where <han-apai> includes <han->, the first person plural pronoun borrowed from Nheengatu, and <apaixi> could probably mean 'my head', with <xi> being the Múra first person singular possessor pronoun.

5. Tooth

PIR	<i>aitópai</i>	'dente'	(Heinrichs 1961)
MUR	<aitóε>	'Zahn'	(Nimuendajú 1932: 94)
MUR	<aetú, aitúwe>	'dente'	(Nimuendajú 1925: 160)
MAT	<ari zi>	'dente'	(Nimuendajú 1925: 167)

On the Pirahã form, *-pai* is certainly segmentable, as it is often found in (semantically) dependent nouns, such as body part terms, when produced in isolation, but is dropped once a modifier of some kind follows (e.g., *'aitóbági?i* 'cinco dentes' (Heinrichs 1963), where *báagi* means 'many' (see Everett 2005: 623). On the Múra forms, note the evidence that final *-to* is apparently segmentable: <boe> 'Hals' [neck], <boetúε> 'Kehle' [throat] (Nimuendajú 1932: 94). The comparison proposed here is, therefore, between Múra-Pirahã **-ai* and MAT <ari>, which implies a correspondence between Ø in Múra and Pirahã with MAT <r>, which has parallels elsewhere (see e.g., 'thigh' below).

6. Thigh

MUR	<atúai>	'Oberschenkel'	(Nimuendajú 1932: 94)
MAT	<atura zi>	'Perna'	(Nimuendajú 1925: 167)

Although accepted, this etymology arguably has two weaknesses: First, the Múra-Pirahã side is limited to attestation in one single Múra doculect. Second, there is no complete semantic identity, as shown by the glosses. For this set note that Matanawi <zi> is not being compared to the final *-i* in the Múra form, the latter being encompassed by the comments made on the set for 'fire' above. The <r> in Matanawi that lacks a correspondent in Múra reflects the same correspondence noted above in 'tooth'.

7. Tree/wood

PIR	<i>it</i>	'árvore'	(Heinrichs 1961)
MUR	<íiyí>	'Pau'	(Nimuendajú 1925: 63)
MUR	<íε>	'Baum'	
	<ií>	'Holz'	(Nimuendajú 1932: 102)
MAT	<i>	'árvore'	(Nimuendajú 1925: 170)

8. *Bark*

PIR	<i>ʔíúwí</i>	'casca'	(Heinrichs 1963)
	<i>íóí</i>	'casca'	(Heinrichs 1961)
MUR	<iyūwe>	'casca'	(Nimuendajú 1925: 163)
MUR	<iyuwí>	'Rinde'	(Nimuendajú 1932: 102)
MAT	<juhō>	'casca'	(Nimuendajú 1925: 170)

The forms in Múra-Pirahã and in Matanawi look like descriptive compounds of the root for 'tree' followed by the root for 'skin'. The correspondence between Múra-Pirahã medial [w] and MAT <h> is discussed below along with a sample of the other tentative correspondences.

9. *Tongue*

PIR	<ipópai>	'língua'	(Heinrichs 1961)
MUR	<ipúe, ipówe>	'língua'	(Nimuendajú 1925: 160)
MAT	<ihuzi, ihuzi>	'língua'	(Nimuendajú 1925: 166)

The core fact about the equation above is that it suggests a correspondences between MUR/PIR <p> and MAT <h> (as noted in 'tooth' above, Múra-Pirahã *-pai* is arguably segmentable). This will be further discussed below along with a sample of the correspondences identified.

10. *Egg*

PIR	<sítoi>	'ôvo' (	Heinrichs 1961)
MUR	<sitoe>	'ovo'	(Nimuendajú 1925: 162)
MUR	<isitoe>	'Ei'	(Nimuendajú 1932: 100)
MAT	<iyo>	'ovo'	(Nimuendajú 1925: 169)

Here appears for the first time a correspondence between MUR/PIR *-t-* and MAT $\emptyset$, with the subsequent development of a transitional palatal glide; alternatively, a correspondence *-t- : -j-* could be stated instead (assuming MAT <y> = IPA [j]). The first element *is(i)-* in the MUR/PIR forms is likely the bound root/classifier for 'animal', given as *ʔís-* in Salles (2023: 967). This element is absent, for instance, in PIR *ʔito-hói* 'testicles' (Everett 1986: 272), with which it shares, nonetheless the *-ito-* element. The intended correspondence is, then, between MUR/PIR *is-ito-i* and MAT *ijo*.

11. *Leaf*

PIR	<xaita>	'leaf'	(Everett 1986: 202)
	<i>ʔáitái</i>	'fôlha'	(Heinrichs 1963)
MUR	<itai>	'folha'	(Nimuendajú 1925: 163)
MUR	<iitai>	'Blatt'	(Nimuendajú 1932: 102)
MAT	<í yaá>	'folha'	(Nimuendajú 1925: 170)

As in the case of 'egg' above, here one finds an apparent correspondence matching medial *-t-* in MUR/PIR to $\emptyset$ in MAT, or, alternatively, to <y> = *j*. A correspondence like this is

diachronically interpretable, in the most natural way, as implying some sort of lenition. As suggested above in the set for ‘egg’, the correspondence can be diachronically interpretable either as mapping $*t > j$ directly, or, as $*t > \emptyset$, with a subsequent development of j in MAT as a transitional glide. The latter hypothesis is consistent with the fact that both in ‘egg’ and ‘leaf’ there is (what looks like) a front vowel preceding t (though see below on the interpretation of the correspondences). Data such as MUR <apae> ‘Kopf’ [head], <apaitai> ‘Haar’ [hair] (Nimuendajú 1932: 93-94), and MAT <apa zi> ‘cabeça’ [head], <apa zi yaá> ‘cabello’ [hair] (Nimuendajú 1925: 166), suggest that ‘leaf’ is a descriptive compound meaning ‘tree hair’ in both languages. In the PIR, <x> stands for a glottal stop [ʔ], and the initial $\text{ʔ}a-$ in some of the Pirahã forms seems to be the ‘third person classifier’ for plants described in Salles (2023).

3.1.1 Tentative correspondence sets

The comparisons discussed above allow for a very limited identification of correspondences, some of which are singled out in Table 3. As indicated by the reduced number of glosses supporting each correspondence, there is no reason for attempting any kind of discrimination between regular and sporadic correspondences.

Table 3. Correspondences in the comparison of potentially cognate forms

PIR	MUR	MAT	Sets
$\emptyset$	$\emptyset$	r	‘tooth’, ‘thigh’
h	h	$\emptyset$	‘fire’
$\emptyset$	$\emptyset$	h	‘bark’
t	t	j	‘leaf’, ‘egg’
t	t	t	‘thigh’
p	p	p	‘head’, ‘water’
p	p	h	‘tongue’

The first correspondence is manifested in two cases where Matanawi < r > matches $\emptyset$ in Múra-Pirahã. One of these sets, here identified as ‘thigh’, is not entirely without problems, as noted above, in particular in distributional and semantic aspects. Nonetheless, other than the non-identity correspondence in question, the remaining segments in the forms compared match relatively well. Since it involves what looks like a rhotic element in Matanawi (see the Nimuendajú 1925: 148 transcription key), it is perhaps significant to mention that rhotics have been involved in some of the most noteworthy diachronic changes in Múra-Pirahã. Pirahã lacks a rhotic, which has apparently shifted to g in the history of the language. As noted by Carvalho (2025), it matches r in Múra cognates, which has led Everett (1979) to reconstruct a Proto-Múra-Pirahã voiced stop $*d$ whose reflexes are g in Pirahã and r in Múra. I have proposed $*r$ instead for the Proto-Múra-Pirahã prototype instead, on the basis the velarizations of the kind seen in Pirahã $*r > g$ is commonly attested with taps/flaps. In any case, $*r$ seems to have been a rather marginal segment in Proto-Múra-Pirahã, and the correspondence of Matanawi r to $\emptyset$ in Múra-Pirahã suggests that it was, in fact, subject to a gradual process of loss or deletion.

The correspondences involving a glottal fricative h share one contextual feature: The presence, in at least some of the compared forms, of a labial glide w (or a back rounded vowel u , o). Carvalho (2025) shows that within Múra-Pirahã itself, or across the Múra-Pirahã doculects, the same association between glides and nasalization can be observed. Moreover, there is some evidence for the action of w and j in modern Pirahã as triggers of contextual

nasalization. If true, this would place them in the same phonological category as *h*, a well-known trigger of ‘rhinoglottophilia’. I follow Carvalho (2025) then and suggest that it might be the case that this common phonological behavior might have a phonetic basis, and the Múra-Pirahã glides, *w* and *j*, might be actually realized with a certain degree of glottal aspiration, thus explaining their nasalizing effects. If this is the case, the formal disparities in the correspondences involving *h* and $\emptyset$ in Múra-Pirahã and Matanawi become less surprising, and the forms, in a sense, become more clearly comparable.

As noted above in relation to the ‘egg’ and ‘leaf’ sets, the correspondence of Múra-Pirahã *t* to Matanawi *j* is restricted to the context of a preceding *i*. However, the correspondence with which it partially overlaps, that showing *t* in all three languages, is attested in one form alone, the set for ‘thigh’. In this case, no reasoning based on regular sound changes is possible, even though the fact that Múra-Pirahã *t* : Matanawi *t* is not found in a preceding *i* is suggestive of a diachronic account for the *t, j* reflexes in MAT.

Finally, the overlapping correspondences involving *p* and *h* seem to be at least in principle explainable by reference to a conditioned split. An identity correspondence involving *p* in all compared languages is found preceding *i* and *a* (see ‘head’ and ‘water’), while Múra-Pirahã *p* matches Matanawi *h* in one case, where *u* is the following vowel. Examination of the Matanawi materials shows that <p> is never found before the back rounded vowels <o, u>, and this could be indicative of an earlier shift **p* > *h* before back rounded vowels in the language. The change in question is plausible phonetically and has a number of areal parallels: Spirantization of a voiceless labial stop before back rounded vowels is attested in the Chapakuran language family, spoken to the south and southwest of the Múra-Pirahã and Matanawi (see e.g., Birchall et al. 2016), and in the Tupi-Guarani language Kayabí, once spoken in the upper Tapajós (Jensen 1998).

5. Conclusions

The opinion that the extant Matanawi data “shows no systematic resemblance to other languages” (Seifart & Hammarström 2018: 274) has become orthodoxy, supposedly reinforced by scrutiny of the relevant data (Alves 2019), and enshrined in reference classifications of the languages of the world (as in the *Glottolog*), as well as in those with an areal focus on the languages of the Americas (Campbell 2024: 240-241). As shown here, however, the study of Alves (2019), the only work so far to have looked at the relevant data directly and explicitly, is problematic in several aspects. I hope to have shown here that the number of suggestive lexical parallels between translational equivalents in Múra-Pirahã and Matanawi exceeds the single comparison presented in Alves (2019).

Despite these findings, and their weight in making the hypothesis of a genealogical relation between Múra-Pirahã and Matanawi stronger and more compelling, caution is needed in view of the nature of the existing data. Although many of the formal mismatches between putative Múra-Pirahã and Matanawi cognates can be made sense of by appeal either to Múra-Pirahã isoglosses or to the sound structure of modern Pirahã, the reduced corpus on Matanawi remains a critically limiting factor. Despite some apparently compelling matches in basic vocabulary, the limited data on Matanawi does not allow for the establishment of regular correspondences - or, in other terms, for the distinction between, on the one hand, an ‘archaic residue’ retained from a shared proto-language and, on the other, a set of historically uninformative chance resemblances. It was possible, at least, to indicate some plausible accounts for sets of overlapping correspondences: The cases where Múra-Pirahã *p* and *t*, respectively, correspond to *h* and *j*, and not *p* and *t*, in Matanawi. Although regular phonological correspondences are **necessary** for compared morphological elements to be recognized as **cognate**, they are not **sufficient** for eliminating the possibility that contact, as large-scale or, in

any case, significant loanword adoption may produce regularly corresponding sets of related forms in two or more languages. The best we can hope, at this point, is to qualify, or attenuate, any dismissive statement about the possibility of this relationship. Also on a more positive side, it might be the case that an exhaustive and detailed analysis of the paradigms and inflectionally related forms in the Matanawi corpus of Nimuendajú (1925) might reveal more interesting matchings with Múra-Pirahã, and one can only hope that the assessment of the evidence presented here will motivate other researchers to undertake this comparative work.

References

- Alves, Diego V. A. (2019). *Langue matanawí: Description phonologique et proposition de classification linguistique* (Masters dissertation). Université de la Sorbonne.
- Birchall, Joshua; Michael Dunn and Simon Greenhill (2016). A combined comparative and phylogenetic analysis of the Chapacuran language family. *International Journal of American Linguistics* 82(3): 255-284. <https://doi.org/10.1086/687383>
- Campbell, Lyle (1997). *American Indian languages: The historical linguistics of Native America* [Oxford studies in anthropological linguistics 4]. Oxford University Press.
- Campbell, Lyle (2012). Classification of the indigenous languages of South America. In Lyle Campbell and Verónica Grondona (eds.), pp. 59-166. *The indigenous languages of South America: A comprehensive guide*. Mouton de Gruyter. <https://doi.org/10.1515/9783110258035.59>
- Campbell, Lyle (2024). *The indigenous languages of the Americas: History and classification*. Oxford University Press. <https://doi.org/10.1093/oso/9780197673461.001.0001>
- Carvalho, Fernando O. de (2025). The Múra doculects and Múra-Pirahã historical linguistics. In Iker Salaberri, Dorota Krajewska, Ekaitz Santazilia and Eneko Zuloaga (eds.), *Investigating language isolates: Typological and diachronic perspectives*, pp. 208-246. John Benjamins. <https://doi.org/10.1075/tsl.135.07car>
- Dench, Alan (2000). Comparative reconstitution. In John C. Smith and Delia Bentley (eds.), *Historical linguistics 1995*, vol. 1: General issues and non-Germanic languages, pp. 57-72. John Benjamins. <https://doi.org/10.1075/cilt.161.05den>
- Everett, Daniel L. (1979). *Aspectos da fonologia do Pirahã* (MA dissertation). Universidade Estadual de Campinas. <https://doi.org/10.47749/T/UNICAMP.1979.47105>
- Everett, Daniel L. (1984). Sociophonetic restrictions on subphonemic elements in Pirahã. In Antonie Cohen and Marcel P. R. van den Broecke (eds.), *Proceedings of the 10th International congress of phonetic sciences*, pp. 611-614. De Gruyter Mouton. <https://doi.org/10.1515/9783110884685-097>
- Everett, Daniel L. (1986). Pirahã. In Desmond C. Derbyshire and Geoffrey K. Pullum (eds.), *Handbook of Amazonian languages*, vol. 1, pp. 200-325. Mouton de Gruyter. <https://doi.org/10.1515/9783110850819.200>
- Everett, Daniel L. (2005). Cultural constraints on grammar and cognition in Pirahã: Another look at the design features of human language. *Current Anthropology* 46(4): 621-646. <https://doi.org/10.1086/431525>
- Faulhaber, Priscila (2008). Etnografia na Amazônia e tradução cultural: Comparando Constant Tastevin e Curt Nimuendaju. *Boletim do Museu Paraense Emílio Goeldi* 3(1): 15-29. <https://doi.org/10.1590/S1981-81222008000100003>
- Hanke, Wanda (1950). Vocabulário e idioma Mura dos índios Mura do Rio Manicoré. *Arquivos: Coletânea de documentos para a História da Amazônia* 12: 3-8.
- Heinrichs, Arlo (1961). Questionário: Mura-Pirahã Rio Marmelos. In Peter Weisserburger (ed.), *Formulário dos vocabulários padrões para estudos comparativos preliminares de línguas indígenas brasileiras*. Museu Nacional.
- Heinrichs, Arlo (1963). Questionário: Mura-Pirahã Rios Marmelos e Maici. In Peter Weisserburger (ed.), *Formulário dos vocabulários padrões para estudos comparativos preliminares de línguas indígenas brasileiras*, Museu Nacional.
- Jensen, Cheryl (1998). Comparative Tupí-Guaraní morphosyntax. In Desmond C. Derbyshire and Geoffrey K. Pullum (eds.), *Handbook of Amazonian languages*, vol 4, pp. 489-618. Mouton de Gruyter. <https://doi.org/10.1515/9783110822120.489>
- Jollesky, Marcelo Pinho De Valhery (2016). Estudo arqueo-ecolinguístico das terras tropicais sul-americanas (PhD dissertation). Universidade de Brasília. <http://dx.doi.org/10.26512/2016.02.T.21671>
- Loukotka, Čestmír (1968). *Classification of the South American Indian*. University of California.

- Martius, Carl F. Ph. von (1867). *Beiträge zur Ethnographie und Sprachenkunde Amerika's zumal Brasilien, II: zur Sprachenkunde*. Friedrich Fleischer.
- Mortensen, David R. (2012). The emergence of obstruents after high vowels. *Diachronica* 29(4): 434-470. <https://doi.org/10.1075/dia.29.4.02mor>
- Nimuendaju, Curt (1925). As tribos do alto Madeira. *Journal de la Société des Américanistes* 17: 137-172.
- Nimuendaju, Curt (1932). Wortlisten aus Amazonien. *Journal de la Société des Américanistes* 24: 93-119.
- Nimuendaju, Curt (1948). The Mura and Piraha. In Julian Steward (ed.), *Handbook of South American Indians*, vol. 3, pp. 255–268. Bureau of American Ethnology.
- Nimuendaju, Curt and Henrique do Valle Bentes, Euclides (1922). Documents sur quelques langues peu connues de l'Amazone. *Journal de la Société des Américanistes* 15: 215-222.
- Ramirez, Henri (2001). *Línguas Arawak da Amazônia Setentrional: Comparação e descrição*. EDUA.
- Salles, Raiane (2023). Pirahã (Apáitisi). In Patience Epps and Lev Michael (eds.), *Amazonian languages: Language isolates II: Kanoé to Yurakaré: An international handbook*, pp. 957-994. De Gruyter Mouton. <https://doi.org/10.1515/9783110432732>
- Seifart, Frank and Hammarström, Harald (2018). Language isolates in South America. In Lyle Campbell (ed.), *Language isolates*, pp. 260-286. Routledge. <https://doi.org/10.4324/9781315750026>
- Sheldon, Linda (1976). *Pirahã pedagogical grammar*. Unpublished manuscript.
- Sheldon, Steven N. (1974). Some morphophonemic and tone perturbation rules in Mura-Piraha. *International Journal of American Linguistics* 40(4): 279-282. <https://www.jstor.org/stable/1265002>
- Sheldon, Steven N. (1988). Os sufixos verbais múra-pirahã. *Série Lingüística* 9(2): 147-175. <https://www.silbrasil.org.br/resources/archives/1697>
- Spix, Johann B. von and Philip von Martius, Carl F. (1831). *Reise in Brasilien: Dritter und Letzter Theil*. Friedrich Fleischer.
- Tadmor, Uri; Martin Haspelmath and Bradley Taylor (2010). Borrowability and the notion of basic vocabulary. *Diachronica* 27(2): 226-246. <https://doi.org/10.1075/dia.27.2.04tad>

CRediT – Taxonomy of Academic Collaboration Roles

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