The classification of the languages of the South American Lowlands
State-of-the-art and challenges

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Overview

- ~ 40 genetic units in the area
- families with at least 15 languages:
  - Macro-Jê (deep, lots of branches)
  - Pano-Tacanan (deep, two constituent branches)
  - Arawak (quite deep, lots of branches)
  - Tupian (quite deep, eight branches)
  - Cariban (shallow, lots of branches)
  - Tukanoan (shallow, two constituent branches)
- presentation:
  - basic information on the family/the respective protolanguage (phonemic inventory, stem structure)
  - information on the relevant recent work and its reliability
  - for references, see handout
Brief historiography

- Gilij (1780–1784): Arawakan (Maipurean) and Cariban families identified for the first time
- Pre-Neogrammarian works based on very scarce documentation (Adam 1890, Rivet 1924, Loukotka 1963, 1968, Mason 1950, *inter alia*)
- Greenberg’s multilateral comparison
- Second half of the 20th century: comparative method applied for the first time
  - Aryon Dall’Igna Rodrigues (classification, identification of sound correspondences for some families)
  - Other authors for individual families (e.g. Irvine Davis for Jê/Maxakalí/Karajá)
- 1990s–present: methodologically correct reconstructions appear for the first time
- 1990s–present: documentation boom
Macro-Jê

- Possibly the deepest family in South America whose existence most scholars usually recognize
- No consensus on what are the constituting groups. Groups such as Bororo, Purí, Yaathê, Guató, Otí have been included, but this has never been demonstrated using the comparative method
- **Not a macrofamily** in the Eurasian sense (maybe as old as narrow IE)
- Ongoing work by the present author, fed by novel documentation
Macro-Jê

- Jê
  - Cerrado
    - Northern Jê lato sensu
      - Northern Jê stricto sensu (5 languages)
      - Panará [+ Southern Kayapó]
    - Xavánte, Akwẽ-Xerênte [+ Xakriabá, Akroá]
  - Southern Jê
    - Kaingáng + Låklănõ
    - [[Ingain]]

reconstruction available

reconstruction available

solid reconstruction available

solid reconstruction available

solid reconstruction available

solid reconstruction available
- Maxakalí-Krenák
  - Maxakalí
    - Maxakalí [+ Pataxó Hāhāhāe, Pataxó, Makoní]
    - [[Malalí]]
  - Krenák
  - [[Kamakã]]
- Karajá (4 dialects)
- [Ofayé]
- Rikbáktsa
- Jabutí

Para-Macro-Jê:

- Chiquitano (3-4 dialects)
Macro-Jê

- typical root structure: *C(ɾ)V(C)
- only */p, m, k, ŋ/* can form complex onsets with */ɾ/*
- two types of codas (with resp. without echo vowels)
  - *c-əmᵊ* ‘its seed’
  - *-tum* ‘fat of’
  - *ũtᵊ* ‘to sleep’
  - *ŋgyt* ‘louse’
- a large vowel system (back rounded, back~central unrounded, front unrounded)
- some vowels are inherently nasal: /õ, ē, ū, ĭ, ũ, ŭ, ţ/ 
- nasal onsets (and maybe codas) acquire an oral contour next to an oral vowel:
  - */mi/* *[mbi]*
  - */mī/* *[mī]*
Macro-Jê

- head-final, derivation mostly via prefixes
- stems are divided into non-relational (no internal argument) vs. relational (obligatory internal argument); the latter include:

  inalienably possessed nouns
  all nominalizations (nonfinite verbs)
  postpositions
  finite transitive verbs
  most stative predicates

| *kyp*  | ‘fly’   | *... ndôm* | ‘eye of ...’ |
| *krət* | ‘flint’  | *... juñ*  | ‘tooth of ...’ |
| *ũt*   | ‘to sleep (finite)’ | *... ſũt* | ‘...’s sleeping (nonfinite)’ |
| *mũ*   | ‘to go.PL (finite)’ | *... ūp* | ‘to give ... (finite)’ |
| *pĩm*  | ‘firewood’ | *... ſũk* | ‘of ...’ |
Macro-Jê

- If the internal argument of a relational stem is 2 or 3 person, person prefixes are used. There are two inflectional classes (I and II), which show the following paradigms.

<table>
<thead>
<tr>
<th></th>
<th>class I</th>
<th>class II</th>
</tr>
</thead>
<tbody>
<tr>
<td>uninfl.</td>
<td>*...</td>
<td>*j...</td>
</tr>
<tr>
<td>2</td>
<td>*a-...</td>
<td>*NP juñ</td>
</tr>
<tr>
<td>3</td>
<td>*i-...</td>
<td>*NP juñ</td>
</tr>
<tr>
<td>3CRF</td>
<td>*ta-...</td>
<td>*NP juñ</td>
</tr>
</tbody>
</table>
Macro-Jê

- Phonologically conservative branches:
  - Jê (loses some codas)
  - Maxakalí (key language for the place of articulation of the codas; loses important contrasts regarding the manner of articulation of the consonants; merges many vowels)
  - Krenák (key language for the manner of articulation of the codas; loses many other contrasts)
  - Jabutí (loses the codas)

- Phonologically innovative branches:
  - Karajá (complicated sound history; Ribeiro 2012)
  - Rikbáktsa (many things totally unclear, not too much shared vocabulary)
  - Ofayé (available sources are scarce and their phonological analyses diverge greatly)
  - Kamakã (only archival documentation; phonology totally unclear)
Macro-Jê and Chiquitano

- First demonstrated by Adelaar (2008)
- Not too much shared vocabulary, but some data look very promising:
  - *j-uñ 'tooth'
  - *-o-
  - *ñ-ĩm 'hand'
  - *-ẽ-
  - *kyp* 'fly'
  - *kypy-
  - *pa(C) 'arm'
  - *-pa-
  - *-pa-ʔi- 'bone'
  - *j-et ~ *j-ek 'bone'
  - *-i- 'leg'
  - *pe- 'fire'
  - *-ōto-

- Person prefixes are very similar to those of MJ, and the morphophonological behavior of the class II stems is about the same in MJ and Chiquitano
Macro-Jê and Chiquitano

- Some mysteries still exist, such as the possible correspondences of PMJ *Cr in Chiquitano
- Typologically very different, including the general head-initial morphosyntax (VAP/VS instead of APV/SV, etc.); however, the person prefixes probably reflect the word order **before** the reorganization.

```
*kyp^o  pa(C)  \rightarrow  *i-pa(C)  kyp^o  ??  \rightarrow  *i-p^a  kypy-ʂy
fly    arm    3-arm  fly  DEM  3-arm  fly-x
       'a fly’s wing'
```

cf.  *i-pa(C)
3-arm
Tupian

- Includes some of the better documented languages in South America
- Contains eight groups that are universally recognized as valid, but it is still debated if they can be further grouped in any way (the answer is probably ‘yes’)
- Most sound correspondences are successfully identified in the pioneering works by A. D. Rodrigues, but:
  - the diachronic interpretations offered by Rodrigues are too often infelicitous;
  - the PT reconstructions by Rodrigues usually skip intermediate stages (except for the Tupí-Guaraní group, he tends to pick just one representative of each group);
  - language documentation has since advanced for some families, and major breakthroughs have been achieved in the understanding of both synchronic and diachronic morphonology of certain Tupian languages.
Tupian

- **Mawé-Guaraní** ("Mawetí-Guaraní")
  - Sateré-Mawé
  - Awetí-Guaraní
    - Awetí
    - Tupí-Guaraní (dozens of languages)
- **Mundurukú** (Mundurukú [+ Kuruáya])
- **Juruna** (Yudjá [+ Xipáya])
- **Mondé** (Suruí-Paiter, [Salamãy, Zoró, Cinta-Larga, Gavião])
- **Arikém** (Karitiána [[+ Arikém]])
- **Tuparí**
  - Makuráp
  - Core Tuparí
    - Sakurabiat, Akuntsú
    - Wayoró, Tuparí
- **[Puruborá]**
- **Ramarama** (Káro)
Tupian

- Puruborá and Ramarama are very likely closely related
- Rodrigues posits a binary W/E division (Tuparí + Arikém + Puruborá + Ramarama + Mondé vs. Mawé-Guaraní + Mundurukú + Juruna), which is usually contested

Easily fillable gaps:

- Awetí-Guarani reconstruction is lacking
- Some important works on Proto-Tuparí phonology exist, but they are not exactly bottom-up; PTpr it can no doubt be reconstructed in greater detail
- The reconstruction of pMawé-Guaraní is incipient; more lexicon can clearly be reconstructed
- No reliable Proto-Mondé (published documentation is scarce)
- Ongoing work:
  - Proto-Mundurukú is reportedly being reconstructed in greater detail by G. Picanço;
  - Proto-Juruna is being reconstructed by F. O. de Carvalho
Tupian

- typical root structure: (CV)CVC
- autosegmental nasality (anchored to the right edge in Mundurukú, Mawé-Guaraní; to the left edge in Tuparian, Karitiana)
- consonants in coda unspecified only for place of articulation
- possibly tonal; no work has been done on reconstructing PT tones
- *u- 1SG, *e- 2, *tə- 3CRF + ‘relational’ paradigm:
Tupian

- Branches whose historical phonology is relatively clear:
  - Karitiana (great vowel shift)
  - Tuparí (key branch for the reconstruction of *ꝁ)
  - Mawé-Guaraní (coronal consonants evolve in a complicated way)
  - Mundurukú

- Branches whose historical phonology is obscure:
  - Ramarama (seems to be quite conservative)
  - Puruborá (data are restricted, seems to be close to Ramarama with an additional shift *c > t; *t > d)
  - Jurúna
  - Mondé

- Syllable structure (CV, CVC) is quite faithfully retained in all branches except Guaraní (which loses most codas) and Jurúna (where codas may be resyllabified)
## Tupian

- There is ongoing work on Proto-Tupian reconstruction by the present author and F. O. de Carvalho
- Improves Rodrigues’s reconstruction by eliminating fictitious consonants (at the expense of adding two vowels to the inventory)

<table>
<thead>
<tr>
<th>Rodrigues</th>
<th>Updated reconstruction</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>čekʷ</em></td>
<td><em>tək</em></td>
<td>‘to grind’, ‘larva’</td>
</tr>
<tr>
<td><em>ekʷip</em></td>
<td><em>ə-邽up</em></td>
<td>‘arrow’</td>
</tr>
<tr>
<td><em>epʷ</em></td>
<td><em>jəp</em></td>
<td>‘leaf’</td>
</tr>
<tr>
<td><em>pičik</em></td>
<td><em>pytyk</em></td>
<td>‘to grab’</td>
</tr>
<tr>
<td><em>tajtu</em></td>
<td><em>jacju</em></td>
<td>‘armadillo’</td>
</tr>
</tbody>
</table>
Arawakan

- Also known as ‘Maipurean’ and ‘Arawak’
- One of the first large language families identified throughout the history of linguistics
- Spans from Belize to south-western Brazil (formerly Paraguay)
- Existing classifications diverge greatly (Payne 1991, Aikhenvald 1999, Ramirez 2019); only a few low-level groups are universally accepted
- Bottom-up reconstruction is absolutely necessary in order to arrive at any meaningful result
- No attempt at a phonological reconstruction since Payne’s (1991) work, which is itself very preliminary, but important work has been done on low-level reconstruction
Arawakan

- Stem structure: \(^{CVCV(CV)}\)
  - some erosion in Palikur, Amuesha’ (lots of Quechua borrowings), Rio Branco (Wapixána/Mawayána)
  - stems may include fossilized classifiers → some lookalikes whose initial consonants don’t correspond may not be cognate at all (they would just share classifiers)

- Much of the PA morphology can be reconstructed

- Person paradigm:

<table>
<thead>
<tr>
<th></th>
<th>SG</th>
<th>PL</th>
<th>attributive:</th>
<th>privative:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>*nu-</td>
<td>*wa- ~ *wi-</td>
<td>*ka-</td>
<td>*ma-</td>
</tr>
<tr>
<td>2</td>
<td>*pi-</td>
<td>*hi-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>M</td>
<td>*tʰi-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td>*na-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F</td>
<td></td>
<td></td>
<td></td>
<td>*ru-</td>
</tr>
</tbody>
</table>
Pano-Tacanan

- Binary split into Panoan and Tacanan
- Some scholars don’t regard the relation between Panoan and Tacanan as conclusively proven, but there is compelling lexical evidence

<table>
<thead>
<tr>
<th>Pano-Tacanan</th>
<th>Proto-Pano</th>
<th>Ese-Ejja</th>
<th>Araona</th>
<th>Cavineña</th>
<th>Takana</th>
</tr>
</thead>
<tbody>
<tr>
<td>liver</td>
<td>*takʷa</td>
<td>e-kakʷa</td>
<td>tákʷa</td>
<td>e-takʷa</td>
<td>e-takʷa</td>
</tr>
<tr>
<td>tongue</td>
<td>*hakan</td>
<td>ej-ana</td>
<td>e-ána</td>
<td>j-ana</td>
<td>j-ana</td>
</tr>
<tr>
<td>blood</td>
<td>*himi</td>
<td>--</td>
<td>ami</td>
<td>ami</td>
<td>ami</td>
</tr>
<tr>
<td>thou</td>
<td>*mi</td>
<td>mi-a</td>
<td>mi</td>
<td>mi-</td>
<td>mi</td>
</tr>
<tr>
<td>hand</td>
<td>*mi-</td>
<td>e-me</td>
<td>e-me</td>
<td>e-me-tuku</td>
<td>e-me</td>
</tr>
<tr>
<td>earth</td>
<td>*mai</td>
<td>mesi</td>
<td>mezizo</td>
<td>metsi ‘soil’</td>
<td>med’i</td>
</tr>
<tr>
<td>meat</td>
<td>*rami</td>
<td>e-jami</td>
<td>e-ami</td>
<td>e-rami</td>
<td>j-ami</td>
</tr>
<tr>
<td>‘muscle’</td>
<td>*maka</td>
<td>--</td>
<td>mahana</td>
<td>makana</td>
<td>--</td>
</tr>
<tr>
<td>stone</td>
<td>*šao</td>
<td>e-sá</td>
<td>e-tsoa</td>
<td>e-tsau</td>
<td>e-tsau</td>
</tr>
<tr>
<td>bone</td>
<td>*mɨ-šis</td>
<td>e-me-kıʃe</td>
<td>0-mé-tezi</td>
<td>--</td>
<td>e-me-tid’i</td>
</tr>
<tr>
<td>nail</td>
<td>*ši[n]i</td>
<td>e-sei</td>
<td>e-tsei</td>
<td>e-tseri</td>
<td>e-tsei</td>
</tr>
<tr>
<td>fat</td>
<td>*šita</td>
<td>e-sé</td>
<td>e-tse</td>
<td>e-tse</td>
<td>e-tse</td>
</tr>
<tr>
<td>tooth</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Cariban

- Arguably the most well-studied family regarding its historical morphosyntax (Gildea 1998)
- A very high degree of phonological erosion due to a special iambic reduction process
- Cariban historical phonology and morphophonology is relatively well understood, but issues with its subgrouping make it difficult to decide which lexical items can be projected to PC and which can’t
Cariban

- Stem structure: \(*CV(CV)(CV)\)
  - there may be some underlying codas recoverable by internal reconstruction:
    
    cf. possessed \(*mi-ty\) ‘root’, \(*ka-ty\) ‘fat’ (normal possessive allomorph \(*-ry\))
    \(\rightarrow *mit/, *kat/\)?

- \(/p, t, k, m, n, r, w, j/\)
- \(/a, ə, y, e, i, o, u/\)

- possessor, \(S_0, O\)
  \(*u=j- *a=j- *i-(\text{*ni- } S_0) *k(y)- *tα-\)
  \(2A>1O: *k-\)

- \(S_A\)
  \(*wy- *my- *ny- *kyt-\)
  \(1A>2O: *k-\)

- \(A>3O\)
  \(*t- *m- *n- *kyt-\)
Tukanoan

- Clear binary split into Eastern Tukanoan and Western Tukanoan
- Solid reconstruction available (Chacon 2014, 2015)
- Stem structure: *CVCV
- Autosegmental nasality

Matacoan

- Clear binary split into Wichí-Chorote and Maká-Nivaclé
- Six vowels: */a, e, i, a, o, u/*
Guaicuruan

- Clear binary split into Northern Guaicuruan (Kadiwéu) and Southern Guaicuruan
- Reconstruction available (Viegas Barros 2013a)

Sáliban

- Piaroa, Mako, Sáliba (Rosés Labrada 2016; maybe Jodí also related)

<table>
<thead>
<tr>
<th>SG</th>
<th>PL</th>
<th>subject paradigm</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td><em>tf-/</em>-d</td>
<td><em>t-/</em>-t</td>
</tr>
<tr>
<td>2</td>
<td><em>kʷ-/</em>-kʷ</td>
<td></td>
</tr>
<tr>
<td>3M</td>
<td><em>Ø-/</em>-Ø</td>
<td><em>tʰ-/</em>-tʰ</td>
</tr>
<tr>
<td>3F</td>
<td><em>kʰ- /</em>-kʰ</td>
<td></td>
</tr>
</tbody>
</table>
Small families: > 2 languages

- Chapakuran (~12 lects, reconstruction available)
- Nambikwaran (~3 languages, Price 1978)
- Zamuco (binary division: Chamacoco vs. Ayoreo + Old Zamuco)
  - extremely complex morphology (cf. Ciucci 2016)
- Nadahup (4 languages, clear internal structure)
  - CVC roots, tonal, autosegm. nasality
  - existing reconstruction unreliable
  - not uncontroversially related to Kakwa-Nɨkak or Wānsōhōt (Epps & Bolaños 2017)
- Yanomaman (~4 languages; Migliazza 1972)
  - clusters as in Macro-Jê
  - (labials/velars + liquids)
- Guahiboan, Bora-Witoto
- Peba-Yaguan, Zaparoan, Chicham
- Arawan (reconstruction: Dixon 2004; Dienst 2005)
- Maskoy
Small families: 2 languages

- Kawapanan (Shawi + Shiwilu)
  - complete phonological reconstruction available (Rojas-Berscia & Nikulin forthc.)
- Bororoan (Bororo [+ Umutina] [+ Otuke])
  - i-/a- pronominal pattern
  - reconstruction by Camargos (2013), but definitely needs revision (Nikulin 2020)
- Kakua-Nìkak
  - quite close; no reconstruction as of now, as Nìkak has only recently started being properly documented
- Katukina-Harakmbet (quite deep, Adelaar 2000)
- Mìky/Irantxé (very close to each other)
  - noun-initial m-/k/- alternation; maybe related to the prefixal alternation ma-/go- in Guató???
- Mura/Pirahã (Mura is extinct, almost undocumented)
- Tikúna/Yurí (Carvalho 2009; Yurí is possibly extinct, almost undocumented)
Isolates

● Pantanal:
  ○ Guató

● Brazilian Northeast:
  ○ Yaathê

● Central Brazil:
  ○ Trumai

● Venezuela/Roraima:
  ○ Puinave, Jodï, Warao, Maku of Roraima, Arutani, Sapé, Betoí

● Mamoré-Guaporé region:
  ○ Kwazá, Aikanã, Kanoê, Yurakaré, Itonama, Movima, Mosetén/Tsimané

● Western Amazon:
  ○ Andoke, Camsá, Cofán, Waorani, Urarina, Candoshi, Munichi, Taushiro, Omurano
Poorly documented unclassified languages

- **Purí** (small family, clusters as in Macro-Jê)
  - formerly classified as Macro-Jê; Ramirez et al. (2015) have shown that it is due to presence of Maxakalian elements in the Koropó wordlists
- **Payaguá**
  - Viegas Barros thinks it is Mataco-Guaicuruan
- **Guachí**
  - Viegas Barros thinks it is Mataco-Guaicuruan
- **Otí**
- **Jirajaran** (small family)
- **Timotean** (small family)
Long-range hypotheses

- Greenberg’s findings appear to be of little to no relevance (not only his methods were flawed, but in the particular case of South America his data are of questionable reliability)
- For an example of informed critique, cf. Gildea & Payne 2007 (discussing Greenberg’s Macro-Carib)
- Below, I will first discuss hypotheses whose validity I (or other authors) find doubtful
- Then I will proceed to hypotheses that seem more promising
Charruan: two or three unrelated families?

- Family posited by Viegas Barros
  - Chaná as spoken by a rememberer, who learnt it under extraordinary conditions
  - Chaná as documented by Larrañaga (1923; limited data)
  - Charrúa as documented by Vilardebo (1842; a handful of ill-transcribed word)
  - Güenoa, for which a very short catechesis is available

- on the Swadesh list between Larrañaga’s Chaná and Jaime’s Chaná, only three words coincide (‘to hear’, ‘sun’, ‘one’); other nine show no resemblance
- Charrúa and Larrañaga’s Chaná share two words out of four (‘two’, which could be a borrowing, and ‘mouth’: Charrúa <ej>, Chaná <heḱ> -- coincidence?)
- Charrúa and Jaime’s Chaná share zero words out of 18
- Güenoa shares two pronominal roots with Larrañaga’s Chaná (‘who’, ‘how’) and the numeral ‘one’ with Charrúa (which could be a borrowing)
<table>
<thead>
<tr>
<th>Word</th>
<th>Chama</th>
<th>Charrna</th>
<th>Larrnanaga</th>
<th>Guenon</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>we</strong></td>
<td>a' a (ará)</td>
<td>(yii) 165</td>
<td>(anupi / am-) M. (ranupi)</td>
<td>(rmbu)</td>
</tr>
<tr>
<td><strong>give</strong></td>
<td>(dajá) 171</td>
<td>(dii) 165</td>
<td>(dii) 165</td>
<td></td>
</tr>
<tr>
<td><strong>sun</strong></td>
<td>(darere)</td>
<td>(dii) 165</td>
<td>(dii) 165</td>
<td></td>
</tr>
<tr>
<td><strong>go</strong></td>
<td>(bajane) 'to walk'</td>
<td>(do) 168</td>
<td>(do) 168</td>
<td></td>
</tr>
<tr>
<td><strong>thou</strong></td>
<td>(empi / em- / m-) 168.</td>
<td>(empi / em- / m-) 168.</td>
<td>(empi / em- / m-) 168.</td>
<td></td>
</tr>
<tr>
<td><strong>one</strong></td>
<td>(gitu / yii)</td>
<td>(gitu) 168; (upii) 'inico' 168; (yuu inaa) 'only one'</td>
<td>(gitu) 168; (upii) 'inico' 168; (yuu inaa) 'only one'</td>
<td></td>
</tr>
<tr>
<td><strong>who</strong></td>
<td>(guarepti) 169</td>
<td>(guarepi) 169</td>
<td>(guarepi) 169</td>
<td></td>
</tr>
<tr>
<td><strong>sand</strong></td>
<td>(han) 167</td>
<td>(han) 167</td>
<td>(han) 167</td>
<td></td>
</tr>
<tr>
<td><strong>mouth</strong></td>
<td>(nevii)</td>
<td>(nevii) 167</td>
<td>(nevii) 167</td>
<td></td>
</tr>
<tr>
<td><strong>that</strong></td>
<td>(naii / naart-) 168</td>
<td>(naii / naart-) 168</td>
<td>(naii / naart-) 168</td>
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<td>(nuoo)</td>
<td>(nuoo) 167</td>
<td>(nuoo) 167</td>
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<td><strong>good</strong></td>
<td>(naii) 172</td>
<td>(naii) 172</td>
<td>(naii) 172</td>
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<tr>
<td><strong>hear</strong></td>
<td>(timonti)</td>
<td>(timonti) 170</td>
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<tr>
<td><strong>come</strong></td>
<td>(adere)</td>
<td>(adere) 165</td>
<td>(adere) 165</td>
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<tr>
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<td>(re) 169</td>
<td>(re) 169</td>
<td>(re) 169</td>
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<tr>
<td><strong>what</strong></td>
<td>(reca) 'what'; (repti) 'wi'</td>
<td>(reca) 'how many? what'</td>
<td>(reca) 'how many? what'</td>
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</tr>
<tr>
<td><strong>two</strong></td>
<td>(amii)</td>
<td>(amii) 168</td>
<td>(amii) 168</td>
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<td><strong>know</strong></td>
<td>(sekere, seké) 169, 172</td>
<td>(sekere, seké) 169, 172</td>
<td>(sekere, seké) 169, 172</td>
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<tr>
<td><strong>see</strong></td>
<td>(solii) 'mirar' 173</td>
<td>(solii) 'mirar' 173</td>
<td>(solii) 'mirar' 173</td>
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<td><strong>mountain</strong></td>
<td>(to e) 169</td>
<td>(to e) 169</td>
<td>(to e) 169</td>
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<td><strong>woman</strong></td>
<td>(adii)</td>
<td>(adii) 169</td>
<td>(adii) 169</td>
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<tr>
<td><strong>I</strong></td>
<td>(yii / i ~ y) 168; (vuuppi)</td>
<td>(yii / i ~ y) 168; (vuuppi)</td>
<td>(yii / i ~ y) 168; (vuuppi)</td>
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<tr>
<td>Word</td>
<td>Chauná</td>
<td>Charuua</td>
<td>Larrañaga</td>
<td>Guenoa</td>
</tr>
<tr>
<td>------</td>
<td>--------</td>
<td>---------</td>
<td>-----------</td>
<td>--------</td>
</tr>
<tr>
<td>sleep</td>
<td>{útalá}</td>
<td>{ándó ciabun} 'vamos a dormir'</td>
<td></td>
<td></td>
</tr>
<tr>
<td>foot</td>
<td>bed’e=ber’a {vedé verá}</td>
<td>{áut}</td>
<td></td>
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</tr>
<tr>
<td>kill</td>
<td>{ñá}</td>
<td>{ái}</td>
<td></td>
<td></td>
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<tr>
<td>go</td>
<td>nder’e {nderé}</td>
<td>{bajíná} 'to walk'</td>
<td>{do} 168</td>
<td></td>
</tr>
<tr>
<td>stand</td>
<td>{réé utalá}</td>
<td>{basquade} 'levantarse'</td>
<td></td>
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</tr>
<tr>
<td>mouth</td>
<td>{uvá}</td>
<td>{ej}</td>
<td>{hek} 167</td>
<td></td>
</tr>
<tr>
<td>hand</td>
<td>{nam}</td>
<td>{guar}</td>
<td></td>
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</tr>
<tr>
<td>moon</td>
<td>{aratá}</td>
<td>{guidá}</td>
<td></td>
<td></td>
</tr>
<tr>
<td>water</td>
<td>at’a {atá}</td>
<td>{hué}</td>
<td></td>
<td></td>
</tr>
<tr>
<td>nose</td>
<td>{uti}</td>
<td>{ibar}</td>
<td></td>
<td></td>
</tr>
<tr>
<td>eye</td>
<td>ok’al {ocál}</td>
<td>{ijou}</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ear</td>
<td>tim’o {timó}</td>
<td>{imau}</td>
<td></td>
<td></td>
</tr>
<tr>
<td>head</td>
<td>{ta ~ ta ug vedé}</td>
<td>{is}</td>
<td></td>
<td></td>
</tr>
<tr>
<td>hair</td>
<td>{moni}</td>
<td></td>
<td>{itaj}</td>
<td></td>
</tr>
<tr>
<td>fire</td>
<td>ŋow’in {yogúin}</td>
<td>{it}</td>
<td></td>
<td></td>
</tr>
<tr>
<td>dog</td>
<td>ag’o {agó}</td>
<td>{samayoí}</td>
<td></td>
<td></td>
</tr>
<tr>
<td>two</td>
<td>am’a {amá}</td>
<td>{sam ~ sán}</td>
<td>{saa} 168</td>
<td></td>
</tr>
<tr>
<td>one</td>
<td>{gli / guí}</td>
<td>{yu ~ yu}</td>
<td>{gili} 168; {ugil} 'único' 16</td>
<td>{yut isa} 'only one'</td>
</tr>
<tr>
<td>Word</td>
<td>Chana</td>
<td>Charrua</td>
<td>Larranaga</td>
<td>Guenoa</td>
</tr>
<tr>
<td>------</td>
<td>-------</td>
<td>---------</td>
<td>-----------</td>
<td>--------</td>
</tr>
<tr>
<td>person</td>
<td></td>
<td></td>
<td></td>
<td>{èevvuit edam} 'si è fatto'</td>
</tr>
<tr>
<td>who</td>
<td></td>
<td></td>
<td>{guarepti} 169</td>
<td>{guarete}</td>
</tr>
<tr>
<td>die</td>
<td>na {ña}</td>
<td></td>
<td></td>
<td>{hallen}</td>
</tr>
<tr>
<td>name</td>
<td></td>
<td></td>
<td></td>
<td>{hapatam} '#his name'</td>
</tr>
<tr>
<td>we</td>
<td></td>
<td></td>
<td>{ampti / am-} M, {rampti</td>
<td>{rambui}</td>
</tr>
<tr>
<td>what</td>
<td></td>
<td></td>
<td>{r'eca} 'what', {r'epiti} 'wh</td>
<td>{retant} 'how many? what'</td>
</tr>
<tr>
<td>one</td>
<td>{gili / güi}</td>
<td>{yù ~ yu}</td>
<td>{gil} 168; {ugil} 'unico' 16</td>
<td>{yut isa} 'only one'</td>
</tr>
</tbody>
</table>
Macro-Jê in Rodrigues’s sense

- The influential classification by Rodrigues (e.g. 1999) classifies Boróro, Purí, Yaathê, and Guató as Macro-Jê. This is not confirmed by my research
- For Boróro, Rodrigues is based on Guérios (1939)
  - spurious matches, low quality transcriptions, arbitrary morphological segmentation
  - *i-/a-* pattern is suggestive, but many families in Eastern SA have it
- For Purí, Ramirez et al. (2015) have shown that it is due to presence of Maxakalian elements in the Koropó wordlists
- For Yaathê, no lexical evidence is available
  - *i-/a-* pattern is suggestive, but many families in Eastern SA have it
- For Guató, no evidence is available at all
  - Martins (2011) makes an attempt, but the results are not convincing at all
Mataco-Guaicurú; Macro-Guaicurú

- skepticism: Brinton (1898), Koch-Grüneberg (1904), Lafone Quevedo (1915), Campbell & Grondona (2007)
- Structural similarities, no shared lexicon (matches suggested by Viegas Barros 1993 are not very convincing)
- Some person markers are further shared by many other families of South America
- Still may hold, but a very careful reconstruction of both PM and PG is necessary
- Only then can the inclusion of Guáchí and Payaguá be assessed
Tupian and Macro-Jê

narrow distribution either in MJ or in Tupian:

3CRF tooth burn_tr tree eat give father husband kill name meat
PMJ *ta- *juñᵊ *pykᵊ *kymᵊ *ko *üp *jom *mbin *wi *-jet *ñít
PT *tə- *jãc *puwk *璞up *o *üp *jup *mêt *wĩ *jet *êt

sour burn_intr arrive ABL ripe arm bat
PMJ *ndapᵊ *titᵊ *wycᵊ *wi *ndêpᵊ *pa(C) *njipᵊ
PT *ndep *tit *wuuc *wi *ndep *paʔ *jip
Cariban, Karirí, and Bororoan

- Some Cariban-Karirí matches have been spotted by de Goeje (1932), but no pC reconstruction was available back then.

<table>
<thead>
<tr>
<th>pBoróro</th>
<th>tooth</th>
<th>ear</th>
<th>to go</th>
<th>tree</th>
<th>tongue</th>
<th>root</th>
<th>hand</th>
<th>fat</th>
<th>seed</th>
<th>fish</th>
<th>name</th>
<th>heavy</th>
</tr>
</thead>
<tbody>
<tr>
<td>*ɔ</td>
<td>*bihda</td>
<td>*tu</td>
<td>*i</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Karirí</td>
<td>dza</td>
<td>bene</td>
<td>dzi</td>
<td>nunu</td>
<td>mu</td>
<td>(a)misă</td>
<td></td>
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<td></td>
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<tr>
<td>pCariban</td>
<td>*(j)ə</td>
<td>*pana</td>
<td>*tə</td>
<td>*jeje</td>
<td>*nuru</td>
<td>*mi(t-)</td>
<td>*əmija</td>
<td>*ka(t-)</td>
<td></td>
<td></td>
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</tr>
<tr>
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<td>*jač</td>
<td></td>
<td></td>
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<td></td>
<td></td>
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<td></td>
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<tr>
<td>pMJ</td>
<td>*juñ</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>pT</td>
<td>*kap</td>
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<td></td>
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<tr>
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<td>*jem</td>
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<td>pT</td>
<td>*ja</td>
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</tr>
</tbody>
</table>
Kakua-Nîkak and Wãnsöhöt

- Epps and Bolaños (2017) point out some similarities but hesitate to claim that there Kakua-Nîkak is genetically related to Wãnsöhöt
- There are however regular sound correspondences:
  - W a  KN e
  - W ā  KN e
  - W ə  KN i
  - W o  KN ĭ
### Wãnsöhöt

- Wãnsöhöt
  - m-ãm
  - mā?
  - ha?
  - näm-ʔot ‘liver’,
  - näm-de ‘belly’
  - -ta (ou dap ‘hand’?)
  - (dəʔ-)aj
  - saj
  - dəʔə
  - kət
  - je?
  - -huj
  - ?iʔ
  - ?ip
  - ?ǐn

### Kakua

- m-ēm
  - mē(?ē)p
  - he
  - nēm
  - dep
  - ti=hej
  - tʃej
  - tɨ
  - kij
  - ji
  - huj
  - ?ip
  - ?ǐn

### Nikak

- m-ēm
  - mēʔēp
  - he(e)
  - nē?
  - (tia=)hei
  - tʃei
  - tia
  - kii
  - jiii, aji
  - hui
  - i(i)p
  - ?ǐ(i)n

### Proto-Nadahup

- *-m
  - *mijí:w
   - ‘thou’
   - ‘blood’
   - ‘stone’
   - ‘liver’
   - ‘meat’
   - ‘night’
   - ‘fire’
   - ‘star’
   - ‘fat’
   - ‘to hear’
   - ‘father’
   - ‘mother’
<table>
<thead>
<tr>
<th>Wãnsöhöt</th>
<th>Kakua</th>
<th>Nikak</th>
<th>Proto-Nadahup</th>
</tr>
</thead>
<tbody>
<tr>
<td>bidu(t)</td>
<td>fit</td>
<td>wiit</td>
<td>'we'</td>
</tr>
<tr>
<td>dap</td>
<td>tej'-</td>
<td>teiʔ  ~ teip</td>
<td>'hand'</td>
</tr>
<tr>
<td>pam</td>
<td>peb-pat</td>
<td>?iũ</td>
<td>'fan'</td>
</tr>
<tr>
<td>-ou</td>
<td>?iũw</td>
<td>?iũ</td>
<td>'to sleep'</td>
</tr>
<tr>
<td>boʔ</td>
<td>mĩh-nãʔ</td>
<td>?iũ</td>
<td>'arm'</td>
</tr>
<tr>
<td>dok</td>
<td>nĩk</td>
<td>nĩ(ĩ)k</td>
<td>'tongue'</td>
</tr>
<tr>
<td>wow</td>
<td>wũw</td>
<td>wuw</td>
<td>'alligator'</td>
</tr>
<tr>
<td></td>
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<td></td>
</tr>
<tr>
<td>dap=sõ</td>
<td>tej’=tʃoa</td>
<td></td>
<td>'nail'</td>
</tr>
<tr>
<td>=sak</td>
<td>tʃãk</td>
<td>tʃããk</td>
<td>'to bite'</td>
</tr>
<tr>
<td>hui</td>
<td>hõi</td>
<td>hãw</td>
<td>'ant, termite'</td>
</tr>
<tr>
<td>Wãnsöhöt</td>
<td>Kakua</td>
<td>Nikak</td>
<td>Proto-Nadahup</td>
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<td><strong>Weird correspondences:</strong></td>
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<tr>
<td>-hei</td>
<td></td>
<td>hueʔ</td>
<td>‘good’</td>
</tr>
<tr>
<td>jək</td>
<td>wɨk</td>
<td>wig, wiik</td>
<td>‘nose’</td>
</tr>
<tr>
<td>-bɨk</td>
<td>wɨʔ</td>
<td>wi</td>
<td>‘to give’</td>
</tr>
<tr>
<td>but</td>
<td>mũnîʔ</td>
<td>mũrí-it, mũnî-nît</td>
<td>‘ear’</td>
</tr>
</tbody>
</table>

| **Probable cultural vocabulary/borrowings:** |       |       |               |
| wãm      | wãm   | wããm | ‘pan’         |
| hap      | hɨp   | huup | ‘tobacco’     |
| dit-     | tit   | tit, tut | ‘thread, cord, *tit vine’ |
| ?ut      | ?ut   | ut   | ‘thorn’       |
| juu      | ju    |      | ‘armadillo’   |

Hup-Dâw: *ʔut

Hup-Dâw: *jəw
Kakua-Nikak, Wãnsöhöt, and Nadahup

- Person markers/pronouns:

<table>
<thead>
<tr>
<th></th>
<th>Wãnsöhöt</th>
<th>Kakua-Nikak</th>
<th>Nadahup</th>
</tr>
</thead>
<tbody>
<tr>
<td>1SG</td>
<td>?-</td>
<td>(*w-)</td>
<td>*-h</td>
</tr>
<tr>
<td>2SG</td>
<td>m-</td>
<td>*m-</td>
<td>*-m</td>
</tr>
</tbody>
</table>
Kakua-Nɨkak, Wãnsöhöt, and Nadahup

Proto-Puinawai-Nadahup ("Proto-Maku") (?)

Proto-Puinawai
("Proto-Western Maku")

Proto-Kakua-Nikak

Wãnsöhöt Kakua Nikak

Proto-Nadahup
("Proto-Eastern Maku")

Proto-Hup-Dâw

Proto-Hup-Yuhúp

Nadëb Dâw Yuhúp Hup
Macro-Chaco hypothesis

Jê-Tupí-Cariban
  Macro-Tupian
    Tupian
      Macro-Jê + Chiquitano
  Macro-Cariban
    Cariban
      Karirí
      Boróro
  Macro-Guaicurú
    Matacoan
      Guaicurú
        (?) Zamuco
Shared morphology

- Many families exhibit phenomena related to the insertion of a typically coronal consonant at the prefix-stem boundary (Macro-Jê, Tupian “Class II”, Bororoan vowel-initial stems, but also Matacoan, Guaicuruan...)
- Proto-Macro-Jê shares with Proto-Tupian the morphophonology of the expression of the II class third person (*j- → *c-)... 
- ...and with Matacoan the morphophonology of the II class second person

<table>
<thead>
<tr>
<th>Proto-Macro-Jê</th>
<th>Wichí Lhomtes</th>
<th>Wichí Noctén</th>
</tr>
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<td>I</td>
<td>I</td>
</tr>
<tr>
<td>II</td>
<td></td>
<td>IIa</td>
</tr>
<tr>
<td>1</td>
<td>*∅... ~ *ij-</td>
<td>'n-</td>
</tr>
<tr>
<td></td>
<td>*j... ~ *ij-j-</td>
<td>'n-l-</td>
</tr>
<tr>
<td>2</td>
<td>*a-</td>
<td>o-</td>
</tr>
<tr>
<td></td>
<td>*∅-</td>
<td>o-1-</td>
</tr>
<tr>
<td>3</td>
<td>*i-</td>
<td>a-</td>
</tr>
<tr>
<td></td>
<td>*c-</td>
<td>∅-</td>
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<td>NP</td>
<td>*...</td>
<td>a-</td>
</tr>
<tr>
<td></td>
<td>*j...</td>
<td>∅-</td>
</tr>
<tr>
<td></td>
<td></td>
<td>∅-</td>
</tr>
<tr>
<td></td>
<td></td>
<td>t’-</td>
</tr>
</tbody>
</table>
Basic vocabulary: Macro-Chaco

‘tooth’:  PT *j-ãc, PMJ *j-uñ, PBo *o, Chq oʔo-, PK *jə, PKrr *dza, PG *-owe

‘liquid’: PT *j-ɯ, Chq uʔu- ‘honey’, PM *?-i

‘name’: PT *j-et, PMJ *-jet, PBo *idže, PK *dže, PM *-ej, PZ *i, (?) Chq ɨri-

‘blood’: PT *əɯ, PMJ *j-O, PM *’woj-, PG *-awot, Ayoreo ijo

‘seed’: pre-pMundurukú *j-a, PMJ *j-əm, PBo *a, Chq ijo-, PC *a, PM *-oʔ, PG -a ‘fruit’
Basic vocabulary: Jê-Tupí-Cariban

‘to go’: PT *to, PBo tu, PK *[wi]tə[ma]
‘arm’: pMundurukú *paʔ, PMJ *paC, Chq pa-, PKrr *bo(ro-), PK *apə-ri
‘foot’: PT *py, PMJ *pVrV, PBo *bure, Krr *bi(ri-), (?) Chq pope-, (?) PK *pupu-ru
‘seed’: pTuparí-Karitiana *j-upa, PK *əpi (*-tipə)
‘stone’: PMJ *kra(C), PKrr *kro
‘tree’: PBo *i, PKrr *dzi
‘to sleep’: pJabutí *nūtã, Chq a-nu, PBo unutu / -nutu, PKrr *-unu, (?) PMJ *ũt