On linguistic diversity and large-scale contact effects: The case of Amazonia

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Understanding patterns of linguistic diversity and similarity

- Processes of language spread and shift
- Divergence of related languages over time
- Transfer of linguistic features via contact

→ Linguistic outcomes of social and historical processes.
For some time periods and regions, these processes are reasonably well understood...

For example:

- Spread of Latin across the Roman empire
- Divergence into Romance languages
- Appearance of Balkan features (from Slavic, Greek, etc.) in Romanian

(Wikipedia)
BUT with greater time-depth and larger geographic scale, the more mysterious these social and historical processes become...

– Spread of (deep) language families, e.g. Indo-European and Pama-Nyungan
– Development and maintenance of extensive diversity in some regions but not others
– Development of large-scale areal patterns that cross-cut linguistic 'genetic' diversity (see e.g. Nichols 1992)
The Amazonian puzzle

- Extreme linguistic diversity – yet probably the last continent settled by humans.
- Non-contiguous distributions of families.
- Diversity cross-cut by cultural and linguistic similarities.

The Amazonian puzzle

- Can we define one or more large-scale Amazonian/South American contact zones?
- How can we reconcile the similarities that exist in the region with the linguistic diversity?
- What social/historical processes might account for these patterns of diversity and similarity?
In this talk:

- I consider the puzzle of Amazonian linguistic similarity and diversity

- Informed by insights from comparative work on lexical borrowing and numeral etymologies
Lexical borrowing and areal diffusion

Language contact + maintenance of diversity: some clear localized cases.
The Vaupés region

Tukanoan family  Arawak family  Nadahup family  Kakua-Nukak family
The Vaupés region:
Cultural prohibitions against language mixing, associated with linguistic exogamy

“If we were all Tukano speakers, where would we get our women?”
(Barasana speaker; Jackson 1983:170)

Tariana: *na-ñamura na-sape* ‘they mix they speak’:

(2) *Rafael matafa basa-mi*
    Rafael good  sing-PRES.VIS.3sgnF
    ‘Rafael in3 sings well.’

(Aikhenvald 2003:8)
Very low levels of lexical borrowing.

Heavy diffusion of structures and categories:

- Noun classification
- Serial verb constructions
- Calquing of lexical expressions
- Evidentials
- Etc.

(see e.g. Aikhenvald 2002; Gomez-Imbert 1996; Stenzel forthcoming; Epps 2007, 2008)
1. Introduction 2. Linguistic diversity, lexical borrowing, and areal diffusion 3. Evidence for long-range contact 5. Conclusions

**Vaupés evidentiality:**

|       | East Takana | Taraka |  | Nadahap |  | Nadahap |
|-------|-------------|--------| |         | |         |
| Visual | paradigm (2nd-person-tense-number) | paradigm (2nd-person-tense-number) |  |  & #39; |  |  & #39; |
| Nonvisual | paradigm (2nd-person-tense-number) | paradigm (2nd-person-tense-number) |  |  & #39; |  |  & #39; |
| Inference (assumed) | paradigm (2nd-person-tense-number) | paradigm (2nd-person-tense-number) |  |  & #39; |  |  & #39; |
| Inference 2 | all construction | paradigm (2nd-person-tense-number) |  |  & #39; |  |  & #39; |
| Reported | paradigm (2nd-person-tense-number) | paradigm (2nd-person-tense-number) |  |  & #39; |  |  & #39; |

Other multilingual Amazonian regions with strong areal profiles:

• **Guaporé-Mamoré region** (Crevels & Van der Voort 2008)
• **Upper Xingu region** (Seki 1999, 2001)
• **Middle Putumayo region** (*‘People of the Center’*) (Seifart 2007, 2011)

(see also Michael et al. 2012)
• **Vaupes region:** “strong constraint against language mixing... [those who use] loans are ridiculed as incompetent and sloppy” (Aikhenvald 2001:412)

• **Guaporé-Mamoré region:** “languages diverge dramatically at the lexical level” (Crevels & Van der Voort 2008:164)

• **Upper Xingu region:** “...the maintenance of difference and the use of language as a marker of group identity” (Seki 2001:79)

• **Middle Putumayo region (‘People of the Center’):** “a strong tendency toward avoiding lexical borrowing” (Seifart 2007:441, 2011)
On a local scale:

→ Long-term contact among diverse groups.
→ Convergence in features of grammar and cultural practice.
→ Low lexical borrowing.
→ Cultural and historical processes foster language maintenance/diversity; limit processes of language spread/shift.
On a wider scale?


A cross-linguistic study of borrowing rates in basic vocabulary

– 122 languages spoken by hunter-gatherers and small-scale agriculturalists in Australia, South America, and California/Great Basin
– Compared with the results of the World Loanword Database project (WOLD; Haspelmath & Tadmor 2009)

Further studies investigate loans in flora/fauna vocabulary, numerals, and cultural/subsistence-related vocabulary.
Rates of borrowing are significantly lower in South American languages than in other regions of the world.

Loans in basic vocabulary (Bowern et al. 2011:2) [AU=Australia, NAM=North America, SAM=South America]
The repression of lexical borrowing is a South American (particularly Amazonian?) areal phenomenon.

The particular salience of language as an ethnic marker appears to be a widely shared Amazonian characteristic (see also Neves 2001:268).

→ Cultural attitudes have probably played an important role in fostering Amazonian linguistic diversity.
Evidence for long-range contact

Can we identify an Amazonia-wide contact zone?
Material culture and technology:

• Domesticated (and semi-domesticated) plant resources, e.g. manioc, peach-palm, brazil nut
  (Clement 1990, Shepard & Ramirez 2011)

• Manioc-processing technology, e.g. the tipiti
  (Carneiro 2000)

• Hammock

• Etc.
Discourse and ritual culture:

- Discursive structures and practices, e.g. ritual wailing (Beier et al. 2002, Urban 1988)
- Themes in myth, cosmology, astronomy (e.g. Levi-Strauss 1964, Epps & Oliveira forthcoming)
- Sacred flute complex (likely Arawak origin; Hill & Chaumeil 2011)

AEITY/ACIMET;
Renata Alves de Souza
Linguistic features?

• Establishing large-scale areal linguistic patterns requires detailed cross-linguistic comparison.

• Difficult in light of limited documentation in Amazonia.
Some suggested lowland areal features

- nominalizations for relative and subordinate clauses
- polysynthesis
- head-marking
- extensive classifier or gender systems
- few oblique cases
- cross-referencing of only one argument on the verb
- five-member vowel system
Guillaume & Rose (2010): ‘sociative causative’

From Guillaume & Rose (2010:390)
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• But little consensus exists as to which linguistic features might be shared widely but exclusively within Amazonia (Payne 1990, Campbell 1997:348–351; see also Epps 2009)

• Or what social/historical processes might have shaped the Amazonian linguistic picture (e.g. Hornborg 2005, Heckenberger 2002, Urban 1996)

• New methods and data are providing promising insights into Amazonian areality (e.g. Michael et al. 2012, Eriksen 2011)
Numerals: a 'canary in the coalmine’ for language contact?

“Numeral systems are particularly susceptible to the kinds of sociolinguistic changes that arise through language contact.” (Comrie 2005:204)

Where lexical borrowing is resisted, might numerals still reveal traces of contact?
A cross-linguistic numeral study:

Epps, Patience and Cynthia Hansen. Under review. 'One, two, three, brother: Numeral etymologies and language contact in Amazonia.'

Patience Epps, Claire Bowern, Cynthia Hansen, Jane Hill, and Jason Zentz. Forthcoming. 'On numeral complexity in hunter-gatherer languages.' Linguistic Typology 16(1).

- Survey of 195 South American languages, belonging to 41 families/isolates (about 85% Amazonian).

- Contextualized within a larger survey of 404 languages from South America, Australia, California and the Great Basin, and southern Africa (see also Hanke 2005, Hammarström 2010).
Results of numeral survey:

• Low lexical borrowing in South American numeral terms.

• But widespread calquing/semantic transfer in terms for ‘4’.
Amazonian ‘relational’ 4 - ‘companion’/‘sibling’:

Hup [Nadahup]:
   *hibab’ni* ‘have sibling / be accompanied, 4’
Tuyuka [East Tukanoan]:
   *ba’pári* ‘companions, friends, 4’
Miraña [Boran]:
   *tsanɛ’ná ñbɛ’βahkátsí-*
      ‘being companions to each other, 4’
Iquito [Zaparaoan]:
   *suhuramaajitáami*
      ‘proper same-sex sibling having, 4’
Some ‘relational’ variants:

Paresi [Arawak]:
   *zalakakoa* (who-comititative) ‘with someone, 4’

Waiwai [Carib]:
   'taʔdɔˈɛɾɛ ‘peer, 4’

Xavánte [Macro-Je]:
   *mro pɛ ‘with companion/spouse, 4’*

Kipeá [Macro-Je]:
   *sumarã oróbae ‘enemy-?, 4’*
Relational variants – 3 and 5:

Bororo [Macro-Je]:

'pɔbe ma mɛ'tuja bo'kʷarɛ
'two and no friend/companion, 3'

Hup, Umari Norte dialect [Nadahup]:

bab’ pã  'sibling non-existent, 3'

Djeoromitxí [Macro-Je]:

djebu djebu hänõtõ
'two two without-companion, 5'
Relational variants - even/odd terms:

Ese Ejja (Tacanan)

- Even values (4, 6, 8): e-beka-pee pya’ay ‘two accompany also’
- Odd values (3, 7, 9): pya beka pee-xima ‘other two don’t accompany it’

Dâw (Nadahup)

- Even values (4, 6, 8, 10): m’ē’ mám’ ‘one brother (exists)’
- Odd values (5, 7, 9): m’ē’ mám’ mēh ‘one has no brother’
Relational numerals:
An Amazonian areal feature

- Attested in 53 languages, about 25% of sample.
- Genetically diverse - 13 families/isolates.
- Widespread within Amazonia, but virtually absent in all other regions surveyed (including elsewhere in South America).
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Arawak
Bora
Carib
Kwaza
Kakua-Nukak
Macro-Je
Nadahup
Tacanan
Tukanoan, East
Tupí
Tupí-Guaraní
Witotoan
Zaparo
Relational numerals: a likely Tupi-Guarani origin

• Relational 4 reconstructs in TG (terms based on *irũ ‘companion, friend, spouse’; Schleicher 1998:13)

• Of relatively recent origin in other families (with the marginal exception of one branch of East Tukanoan)

• Tupi-Guarani diaspora (9th-16th c.) as likely motor of spread

• Localized diffusion in particular regions (Middle Putumayo, Vaupés, Xingú, Guaporé-Mamoré, Guiana Highlands)
• Tupi-Guarani speakers as mediators of trade along major rivers (e.g. Eriksen 2011); trade as a likely catalyst for numeral diffusion (e.g. Epps 2006)

• Spread of relational numerals possibly facilitated by a gestural counting strategy involving the pairing of fingers (see Van der Voort 2009, 2006:21; Ospina 2002:462)
• Relational 3 and 5 terms – probably formed by analogy with 4.

• Variant ‘enemy’ – explanation in TG-Kipeá social relations?
Alternative origins for the relational numeral strategy?

- Língua Geral (form of Tupinambá spread by Jesuit missionaries)?
  
  *Relational 4 is probably too old.*

- Widely present in Amazonia long before the TG diaspora?
  
  *Relational 4 is probably too recent.*
Conclusions

Long-range contact in Amazonia...

- Relational numerals: evidence for pan-Amazonian areality
- Likely source and motor of spread – Tupi-Guarani diaspora
- Localized diffusion, facilitated by trade and possibly other forms of interaction, e.g. warfare
- Other shared features may be linked to other socio-historical events, e.g. Arawak diaspora (sacred flute complex, etc.)
Amazonian similarity and diversity...

- Pan-Amazonian tendency to limit lexical borrowing
- Widespread cultural emphasis on language=identity
- Limited language mixing/shift
- An areal recipe for genetic diversity?

Importance of social and historical processes to our understanding of linguistic patterns – and vice versa.
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Photos: Hup people of the Rio Tiquié.
References


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Thank you!