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Tapuya connections²: language contact in eastern Brazil

"[...] genetic prehistory is not the only kind of linguistic prehistory.

In terms of the overall prehistory of unwritten languages it is as rewarding to uncover evidence of earlier contact as it is to find evidence of genetic relationship."

(Mary Haas, The Prehistory of Languages, 1969)

ABSTRACT: In eastern Brazil, most indigenous languages were only superficially documented before becoming extinct. Besides hampering attempts at genetic classification of the languages of the region, the lack of linguistic data seriously limits our knowledge of possible cultural contacts among the several tribes listed by colonial sources. Notwithstanding that, this paper attempts to provide a few additional pieces for the ethnographic puzzle which is eastern Brazil, focusing on loanwords found in Kipeá, a Karirí language once spoken in the present-day states of Bahia and Sergipe, in northeastern Brazil. Besides allowing a glimpse into situations of language contact in eastern Brazil, the identification of previously unsuspected loanwords may contribute to a better understanding of phonological aspects of Kipeá.

KEYWORDS: Language contact; Borrowings; Macro-Jê.

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² Tapy iyia 'barbarian, foreigner' (> Tapuya) was how the Tupí-speaking tribes of coastal Brazil referred to their non-Tupí-speaking enemies, mostly inhabitants of the country's interior. When Europeans started exploring the Brazilian coast, most of it was occupied by Tupí-speaking tribes. Since Tupí was so widely spoken, it would soon play a major colonial role as a lingua franca (Rodrigues 1996). Given the importance of Tupí as a colonial language in the first centuries of the colonization of Brazil, it would be fairly well-documented, through grammars, doctrinal texts, countless wordlists, etc. Contrasting sharply with that situation, languages of non-Tupí tribes (which the colonizers, adopting the Tupí viewpoint, would group under the generic umbrella "Tapuya") were only sporadically dealt with (a major exception being, as we will see, languages of the Karirí family; see also Ribeiro 2009 for possible missing sources on Purí languages). Although the ethnographic value of the label "Tapuya" is questionable (Lowie 1946), the languages of many of the tribes to which it was applied turn out to be genetically related, as part of the Macro-Jé stock (Ribeiro 2006), which includes, in addition to the language families here discussed (Table 1), Jê, Boróro, Karajá (Central Brazil), Ofayé (Mato Grosso do Sul), Rikbáktsa (Mato Grosso), Chiquitano (Bolivia and Mato Grosso), and Jabutí (Rondonia).

RESUMO: A maioria das línguas indígenas originalmente faladas no leste brasileiro se extinguiram antes que pudessem ter sido devidamente documentadas. Além de dificultar os estudos das possíveis relações genéticas entre tais línguas, a falta de dados limita sobremaneira o conhecimento de possíveis contatos culturais entre as tribos da região. Apesar disto, este artigo tenta fornecer peças adicionais para o quebra-cabeças etnográfico que é o leste brasileiro, concentrando-se no estudo de empréstimos em Kipeá (família Karirí, tronco Macro-Jê), língua outrora falada em áreas hoje pertencentes aos Estados da Bahia e Sergipe. Além de nos dar uma idéia mais clara de situações de contato lingüístico no leste brasileiro, a identificação de empréstimos antes despercebidos fornece subsídios para uma melhor compreensão de aspectos da fonologia do Kipeá.

PALAVRAS-CHAVE: Contato lingüístico; Empréstimos; Macro-Jê.

0.INTRODUCTION

In historical linguistics, an important step in establishing true cognates is to identify and isolate possible loanwords, either borrowed from one related language into another, or borrowed by both from a third source. Failure to do so may result in the postulation of wrong cognates and proto-words, and, consequently, in a less-than-accurate perception of the linguistic and cultural past. In Macro-Jê, a case in point is the word for 'maize', shared by languages from four different families inside the stock: Karajá maki (Karajá family), Kipeá masiki and Dzubukuá madiqui (Karirí family), Iatê maltsi (Iatê family), Coroado maheky (Purí family) and Purí maki (Puri family). Although such words have been included in lists of likely Macro-Jê cognates (Rodrigues 1999, Rodrigues & Cabral 2007), they turn out to be a rather widespread Arawák loan (cf. Proto-Arawák *mariki; Payne 1991:399). Probably introduced by diffusion, rather than direct contact between Arawák and Macro-Jê groups, such loans are interesting pieces of evidence for the role played by Arawák-speaking tribes in the spread of agricultural practices in lowland South America.³ On the other hand, postulating the existence of a Macro-Jê proto-form for 'maize' with base on such an obvious case of borrowing is misleading, not only for the purpose of historical linguistic comparison, but also for the use of linguistic evidence as an ancillary tool for ethnographic inferences.⁴

³ The postulation of a word for 'maize' in Proto-Macro-Jê (whose age is estimated between 5 and 6 thousand years; Urban 1992:91) is inconsistent with what is known about the diffusion of maize cultivation. According to Brown (2006:655), maize was domesticated in southwestern Mexico before 6000 BP and its introduction in lowland South America is relatively recent: "the earliest dates for Zea, which may have been Zea mays, from South America including Zea pollen and phytoliths from Ecuadorian Amazonia dated at 5300 BP." Borrowed early on from tribes of the Caribbean, the Arawák loan is also found in English (maize), French (maïs), German (Mais), and Spanish (maíz). The loan was also introduced (via Spanish) into several indigenous languages, such as, in North America, Eastern Pomo (McLendon 1969:50) and some Uto-Aztecan languages (Brown 2006:651). However, on both historical and linguistic grounds, it is rather unlikely that the Macro-Jê words for 'maize' discussed above were adopted via an European language.

⁴ A possible route for the diffusion of the Arawak loan among Macro-Jê tribes remains to be determined. Its ultimate source may have been an Arawak language from the Xingu region, as suggested by its occurrence among the Karajá (who have adopted other cultural elements from the Xingu; cf. Baldus 1938, Ehrenreich 1894, Ribeiro 2001). Crossing the valley of the Araguaia River (traditional Karajá territory), the loan may have reached eastern Brazil through tribes that would have later migrated or become extinct.

Although the identification of loanwords is a relatively easy task when the donor is a European language or a well-documented indigenous language, loans from lesser-known languages are much harder—and, sometimes, impossible—to identify. That is particularly the case in eastern Brazil, where most indigenous languages were only superficially documented before becoming extinct (Footnote 1; Table 1). Besides hampering attempts at genetic classification of the languages of the region, the lack of linguistic data seriously limits our knowledge of possible cultural contacts among the several tribes listed by colonial sources.

Notwithstanding that, this paper attempts to provide a few additional pieces for the ethnographic puzzle which is eastern Brazil, focusing on loanwords found in Kipeá, a Karirí language once spoken in the present-day states of Bahia and Sergipe, in northeastern Brazil. Compared to most extinct non-Tupí languages of eastern Brazil, whose documentation is limited to wordlists, the Karirí languages Kipeá and Dzubukuá were fairly well-documented. For Dzubukuá, there is the catechism (1709) written by the Capuchin missionary Bernardo de Nantes; for Kipeá, there are a catechism (1698) and a grammar (1699), both written by the Jesuit missionary Luiz Mamiani. Although the present study focuses on Kipeá, whose documentation is more abundant and more reliable, Dzubukuá data will also be considered, whenever relevant.⁵ For most of the other languages compared, the documentation is much scantier. That is especially so in the case of the languages of the Kamakã and Purí families, all of which are now extinct; the known sources on both families are thoroughly studied by Loukotka (1932, 1937, respectively), from whose work I draw all of the Kamakã and Purí data used in this paper. With the exception of Maxakalí proper, all languages of the Maxakalí family are also extinct; a recently-published dictionary (Popovich & Popovich 2005) provides most of the Maxakalí data presented here. As for the Krenák family, the available documentation consists mostly of wordlists (including a few phrases), but is steadily increasing thanks to the research being conducted by Lucy Seki, along the past few decades, among the few remaining speakers of the language (cf. Seki 1984, 1990, 2002, 2004, etc.); the Krenák data used here are from Rudolph (1909). Finally, data for Iatê (the only surviving indigenous language in the Brazilian northeast) were obtained from Sá (2000).

As I intend to show, a careful examination of the Kipeá data and available sources on surrounding languages may reveal valuable details on cultural exchanges that took place in the early centuries of the colonization of Brazil (or even earlier). Besides allowing a glimpse into situations of language contact in eastern Brazil, the identification of previously unsuspected loanwords may contribute to a better understanding of phonological aspects of Kipeá. Lastly, by identifying loanwords shared by different Macro-Jê languages in the region (Tables 2, 3, and 4), the ground is set for further studies aimed at clarifying the relationships (genetic and otherwise) among such languages.

For details on the pronunciation of the Dzubukuá examples, see Queiroz (2008); for Kipeá, see Azevedo (1965). With the exception of two words (*papéra* 'paper', taken from Martius (1867:106), and *curê* 'call for a (domestic) pig', taken from Anonymous 1938:153), all the Tupí data used here are taken from Barbosa (1970, 1956), whose transcription is preserved. Throughout this paper, I use "Tupí" as an umbrella term for both Tupinambá and the Línguas Gerais. Likewise, I include both Dzubukuá and Kipeá under the term "Karirí."

Table 1. Eastern Macro-Jê languages (apud Ribeiro 2006)6

1. Kamakã

†Kamakã, †Mongoyó, †Menién, †Kotoxó, †Masakará

2. Maxakalí

Maxakalí, †Pataxó, †Kapoxó, †Monoxó, †Makoní, †Malalí

3. Krenák

Krenák (Botocudo, Borúm)

4. Purí (Coroado)

†Coroado, †Purí, †Koropó

5. Karirí

†Kipeá, †Dzubukuá, †Pedra Branca, †Sabuyá

6. Iatê

1. TUPÍ LOANS

As is common throughout lowland South America, most Macro-Jê languages present a number of Tupí-Guaraní loans, most of which were directly or indirectly introduced in colonial times, either from Tupinambá (or Coastal Tupí) or from one of the Tupinambá-based linguae francae that were widely used during the first centuries of the colonization (cf. Rodrigues 1996): the Língua Geral Amazônica or Nheengatú (which enjoyed widespread use in most of Brazilian Amazon) and the Língua Geral Paulista (spread mostly by mestizo explorers from São Paulo, in southern and central Brazil). As the examples below show (Table 2), most of these words refer to cultural items and practices introduced with the European colonization⁷. Since Tupinambá is a well-documented language, the identification of such loans is fairly straightforward.

 $^{^6}$ By "Eastern Macro-Jê languages" I refer to those originally spoken east of the São Francisco River. Extinct languages are indicated by \dagger .

The existence of such loans may have been responsible, at least in part, for misleading Baptista Caetano de Almeida Nogueira ('Introduction', Mamiani 1877) into considering Kipeá as a Tupí language (a fact that may have contributed, albeit indirectly, to the inclusion of the Karirí family in Greenberg's "Equatorial", together with the Tupí family; Greenberg 1987).

Table 2. Tupi Ioans in Kipéa (Kariri) and other eastern Macro-Jê languages 8

	Kipeá	Dzubukuá	Tupinambá		Other Eastern Macro-Jê languages
1.	awi		abi	'needle'	Maxakalí ⁹ ãmix
2.	bacobá ¹⁰		pacova	'banana'	Coroado bacóba
3.	caraí	carai	caraíba	'White person'	Iatê <i>klai</i> Krenák <i>krai</i>
4.	cramemú		caramēmuā	'box'	
5.	curé		curê ¹¹	'domestic pig'	Krenák kurek
6.	erumú		jurumũ, jeremũ	'pumpkin'	Purí <i>šurumúm</i> 'potato'
7.	miapé		miapé	'bread'	
8.	myghý	muihi ¹²	mboýra	'beads'	
9.	nhendí	nianddi	nhandy	'oil'	
10.	pycá		apycába	'bench'	
11.	sabucá	dapuca	(güyra)ssapucáia	'chicken, hen'	
12.	tapanhú	tapwinhiu	tapyyiúna	'Black person'	Coroado tabañiú, Makoni (Maxakalí family) tapagnon, Malalí (Maxakalí family) tapagnon
13.			tapyýia	'Black person',13	Iatê tupia
14.	tasí		itassýra	'hoe'	Maxakalí taxunna

⁸ For details on the pronunciation of the Tupinambá examples, see Barbosa (1956). Following colonial sources, Barbosa does not indicate the glottal stop, which occurred in most apparent cases of word-medial hiatus (such as in *mboýra, tapyýia*, etc.). For Tupí loans in other Macro-Jê languages, see Viana (2004), for Boróro, and Ribeiro (2001), for Karajá.

Example from Antunes (2000:66), adapted to the Maxakalí orthography for the sake of consistency with the remaining Maxakalí data (extracted from Popovich and Popovich 2005).

¹⁰ Notice that Kipeá *bacobá* 'banana' (< Tupí *pacóva*) is an apparent exception to the rule eliminating final unstressed syllables; a possible explanation for its exceptionality may be that it would have been a result of indirect borrowing.

In Tupinambá (and the Línguas Gerais) the documented word for '(domestic) pig' is *taiassu* (which originally referred to a wild species of pig). *Curê* is documented in the Tupí dialect of Piratininga (Anonymous 1938:153) as a vocative word: "Chiquo ou chico, o chamar dos porcos. – Curê."

The sequence <ui> in Dzubukuá generally represents a single vowel—a high central one, /é/, written as <y> in Kipeá.

Since the enslavement of enemy tribes was a common pratice in colonial Brazil, another documented meaning of *tapyyia* is 'slave'. The fact that the loan *tupia* (< *tapyyia*) means, in Iatê, 'Black man' seems to indicate that, as African slaves became more common, the word *tapyyia* acquired (dialectally) a more restrictive meaning. A more common loan for 'Black man' is the one documented for the Karirí languages (*tapyyi* + -úna 'black'; cf. *tapyyi* + -tinga 'white' > 'Hindu').

1.7	,			17	3.6 1.17
15.	tayú	tayu	itajúba	'money'	Maxakalí
					tayũmak
16.	tupã	tupam	tupã	'God'	Maxakalí <i>topa</i>
					Krenák kupan
					Coroado tupan
17.	waré	padzuare ¹⁴	abaré	'priest'	Maxakalí
					ãmãnex
					Macuni
					amattèih
					Coroado <i>uáre</i>
					Masakará
					ampari
18.	waruá		guaruguá	'mirror'	
19.	wirapararã		ybyrapararánga	'sugarcane	
				mill'	
20.			mbocaba	'firearm'	Coroado
					bokawa
21.			mbeju	'manioc	Coroado bišu
				tortilla'	'manioc'
22.			tapiira	'cow, cattle'	Coroado
					tapira
					Malalí <i>tapiet</i>
23.			abati	'maize'	Krenák javati 15
24.			anhanga,	'demon'	Coroado (Purí
			anhangüera		family)
					nhawuera
25.			jaguara	'dog'	Coroado
					d'zoàra
					2. 204, 4

Examples such as the ones above pay witness to a well-documented situation of language contact in a colonial setting—since most, if not all, of these words refer to cultural items (utensils, domesticated plants and animals, etc.) introduced after the arrival of the Europeans. However, it would be a mistake to assume that all Tupinambá lexical loans documented in Mamiani's works were necessarily adopted under the direct influence of missionaries or settlers. New cultural artifacts and practices, cultivated plants, and domesticated animals—as well as their original names—tend to spread rather quickly, in such a way that loanwords can be found in areas where speakers of the donor language never set foot. Thus, it is not unlikely that some of these loanwords were introduced via lexical diffusion, being already in use even before direct colonial influence took place. The

Dzub. padzuare is a compound involving a native word, padzu 'father', and the Tupinambá loan ware 'priest'.

¹⁵ The fact that Krenák presents a Tupí loan for 'maize', instead of an Arawák one as Iatê, Kipeá, and Purí, seems to suggest a latter adoption of maize cultivation.

same applies to loans from Portuguese (see Section 2 below). In addition, at least one Karirí word made its way into the Tupinambá lexicon, *sumarã* 'enemy', ¹⁶ providing a linguistic clue on the nature of the contacts between the Tupinambá and the Kariri before the latter were settled in missionary villages. That suggests the possibility that other Tupi loanwords, such as *erumu* 'pumpkin', could have been introduced under similar circumstances. ¹⁷

Not all lexical similarities between Tupí and Macro-Jê languages are necessarily loans. Given the possibility that Macro-Jê and Tupí may be genetically related at a remote level (Rodrigues 1985, 2000), some similarities may ultimately be due to common genetic inheritance. The words for 'husband' are a case in point: as Davis (1968:47) points out, the words reconstructed for both Proto-Jê (*mjen) and Proto-Tupí (*men) are practically identical. A similar example is the word for 'chief' in a few Jê languages, which could be a cognate of a word with a similar meaning in Tupí languages (cf. Tupinambá paí, a title which, according to Lemos Barbosa (1956:429), was assigned to "men of respect: chiefs, witchdoctors, priests, elderly relatives, etc." [my translation]). Considering that the Jê word for 'chief' is attested in both Southern Jê (Xokléng pa'i, Kaingáng pã'i; Wiesemann 1978) and Northern Jê (Apinajé pa'i, Krahô pahhi; Ham, Waller & Koopman 1979; Popjes & Popies 1986), it could in principle be reconstructed for Proto-Jê (*pa?i). The antiquity of this word in the Macro-Jê stock seems to be further corroborated by the fact that a likely cognate is also attested in another Macro-Jê family, Kamakã (Meniens paï 'homo albus'; Cotoxó hoay 'dominus', hoá y 'homo albus'; Martius 1867:155-157). However, the possibility of it being a result of borrowing cannot be completely discarded at this point. 18

2. INDIRECT PORTUGUESE LOANS

Some Portuguese loans may have been introduced into the lexicon of the Karirí languages indirectly, through other indigenous languages—mainly Tupinambá. That is probably the case of *cabará* 'goat', *cabarú* 'horse', and *crusá* 'cross' (Table 3). The phonological adaptations undergone by these words would be hard to explain if they were directly borrowed from Portuguese, but find a straightforward explanation once the possibility of indirect borrowing is factored in. Clusters such as /kr/ and /br/ in Portuguese

¹⁶ I owe the confirmation of this hypothesis to Wolf Dietrich (cf. summary in the "Etnolingüística" list , February 1, 2004; http://lista.etnolinguistica.org/385). As it turns out, the possibility that Tupí sumarã was a Karirí loan had been suggested earlier by Lapenda (2005[1965]; see footnote 29). Besides the fact that a cognate of sumarã does not occur in other Tupí-Guaraní languages, its Karirí origin is also confirmed on morphological grounds: while sumarã is unanalyzable in Tupinambá, it is morphologically complex in Karirí, where s-u-marã 'his/her enemy' includes a third-person prefix, s-, and a marker of indirect possession, u- (Ribeiro 2002).

The data also suggest a relative chronology for the introduction of some loans. While inherited Karirí words tend to show a correspondence between Kipeá /s/ and Dzubukuá /h/ (sa vs. ha 'to give birth', s- vs. h- '3rd. person prefix') or <dh> (si vs. dhi 'heart', su vs. dhu 'fire', etc.), loans show a correspondence between Kipeá /s/ and Dzubukuá /d/ (masiki vs. madiqi, sabuca vs. dapuca) or, less commonly, between Kipeá /s/ and Dzubukuá /dz/ (cf. 'cross'), making it clear that the latter were introduced after the split between Kipeá and Dzubukuá had taken place.

¹⁸ A similar word in yet another Macro-Jê language, Chiquitano (*paì-s* '(Catholic) priest'; Adam & Henry 1880:112), was probably borrowed from Guarani.

cruz and cabra were common in the native lexicon of Kipeá (cf. cró 'stone', crecré 'dirty', brocá 'come here!' etc.), but non-existent in Tupinambá (where epenthesis, such as in cabará and curussá, was a common strategy for cluster resolution). Stress also plays a role in identifying Tupí as an intermediate source for such loans. In Kipeá, lexical stress falls invariably on the last syllable. Considering that loans containing unstressed final syllables in the donor language are systematically shortened in Kipeá (cf. 'hoe', 'money', 'bench', 'beads' etc.), the outcome would have been quite different if a word such as cavalo were borrowed directly from Portuguese (cf. bara 'type of basket', from Portuguese balaio). In Tupinambá, on the other hand, the stress in such words is shifted to the last syllable, hence cavalo > cabarú, cabra > cabará, etc.

Table 3. Indirect Portuguese loanwords

	Kipeá	Dzubukuá	Possible intermediate sources	Portuguese		Other Macro-Jê languages
1.	cabará	cabara	<i>cabará</i> (Tupinambá)	cabra	'goat'	
2.	cabarú		cavarú (Tupinambá)	cavalo	'horse'	Coroado (Purí family) kawarú, Cotoxó (Kamakã family) cavaró
3.	crusá ¹⁹	crudzá	<i>curussá</i> (Tupinambá)	cruz	'cross'	Iatê klusa
4.	nhewó	niẽwo	niñavoo (Kapoxó, Maxakalí family)	diabo	'devil'	
5.			papera	papel	'paper' ²⁰	Iatê <i>wapela</i> Coroado <i>tapera</i>

Notice that the same process of syncope (Tupinambá curussá > Kipeá crusá; Table 3) occurs with the word for 'box' (Tupinambá caramēmuã > Kipeá cramemu; Table 2).

Similar loans for 'paper' also occur in Boróro (*bapera*; Crowell 1979:161) and the Xambioá dialect of Karajá (*mabera*; Ribeiro 2001). Given that such words are ultimately of Portuguese origin, the fact that they were adopted via Tupí is commonly overlooked. However, the occurrence of a final -a (a Tupinambá suffix which occurred with all consonant-final nominal stems) is a tell-tale sign of their Tupinambá/Língua Geral provenance. Although *bapera* is not one of the loans listed by Viana (2004), it may play an important role in corroborating her analysis of the devoicing phenomenon in Boróro in terms of the Obligatory Contour Principle (Viana 2007).

2.1. The devil in the details

An even more interesting example is the word for 'devil', nhewó, which traces back to Portuguese diabo. It is likely that such word entered the Karirí lexicon via another indigenous language, probably one belonging to the Maxakalí family (cf. Kapoxó ninjavo-o 'diabolus', niniavoo panaung 'diabolus malus est'; Martius 1967:170, 172). Again, the phonological adaptations undergone by this word would be atypical had it been borrowed directly from Portuguese, but are straightforward if an intermediate form is postulated (diabo > ninjavo [nīja'wɔ] > nhewó [pe'wɔ]). As we have seen (Table 2), while final unstressed syllables tend to be eliminated in Karirí, they are preserved in the Maxakalí languages ('hoe', 'money'), whith the dislocation of the stress to the last syllable.

That $nhew\delta$ is a loanword is a point worth stressing, since it is assumed to be a native word by at least two authors (Monteiro 2001, Ribeiro 2005), who attribute hidden ideological intentions to the missionaries' supposed choice of a native word to designate the evil counterpart of the Christian god, designated by a Tupinambá loan, $Tup\tilde{a}$ (cf. Table 2). Ribeiro (2005:48) even comes up with an imaginative, undocumented "etymology" for $nhew\delta$ —'evil spirit': "Talvez o único termo Kariri que servisse ao catequizador fosse $Nhew\delta$, espírito do mal, que foi adaptado para ser o Diabo."

Based on mistranslations²¹ and misinterpretations of the data, Ribeiro reaches other unwarranted conclusions, claiming, for instance, that the Tupí loan $Tup\tilde{a}$, which designated the Christian God and would be adopted even among non-Tupí tribes ("Tapuyas"), was, for the latter, "nothing but a two-syllable word devoid of meaning" [my translation]. The adoption of linguistic loans, of course, does not occur in a historical and cultural vacuum. As the examples in Table 2 demonstrate, the adoption of $Tup\tilde{a}$ does not constitute an isolated case, as much of the terminology used to designate ideas and objects introduced by the Europeans was borrowed from Tupí — which, by then, played a major role as a colonial contact language (Rodrigues 1996). That includes not only items referring to

²¹ In both catechisms, the texts are presented in parallel columns (Mamiani, Nantes) or pages (Nantes), one containing the version in the indigenous languages, the other the text in Portuguese. In analyzing the catechisms, Ribeiro (2005) and Monteiro (2001) end up mismatching the Portuguese words and their Karirí equivalents. For instance, Ribeiro translates *inhá* (the 3 rd person form of the ergative postposition *na*) as 'maize beer' (the correct word for 'maize beer', translated by Mamiani in the grammar as 'beer wine', *nhupý*, occurs in the same sentence; Mamiani 1942:84-85). A similar mistake is made by Monteiro (2001:48), who misidentifies the Kipeá word for 'angel' as *idzeró*, whereas the actual word with this meaning, the compound *anhíwonhé* (*anhí* 'soul' + *wonhé* 'good'), occurs in the same line (Mamiani 1942:xi).

Catholic liturgy ('(Catholic) priest', '(holy) oil', '(rosary) beads'), but also items of a more mundane nature ('hoe', 'money', 'sugarcane mill', etc.). ²²

3.MACRO-JÊLOANS

	Karirí		Other languages			
	Kipeá	Dzubukuá				
1.	ghinhé	guenhie	giñá (Kotoxó, Kamakã	'beans'		
			family)			
2.	pité	pitta	pita (Coroado, Purí family)	'hammock'		
3.	gorá		engorá (Krenák) ²⁴	'Black person'		
4.	pôhô		pohok (Maxakalí, Maxakalí	'swamp, marsh'		
			family)			
5.	cradzó	cradzo	krazo 'tapir' (Masakará,	'cow, cattle'		
			Kamakã family)			
6.	badzé	badze	bosé 'tobacco pipe'	'tobacco'		
			(Coroado Purí family)			

Table 4. Loans between eastern Macro-Jê languages²³

Although with the items in Table 4 the direction of the borrowing may seem less obvious, when compared to those of Tupí (Table 2) or Portuguese origin (Table 3), phonological, morphological, semantic, and ethnographic considerations may help us determine their origin. As we will see (Section 4), /g/-initial words as *ghinhé* and *gorá* are

Finally, also misleading is the idea that European religious ideas were still a complete novelty among the Karirí by the time the sources (Mamiani, Nantes) were published. As Pompa (2003:18) points out, Jesuit incursions to the hinterland (*sertões*) had begun a century earlier:

The assumption that any new religious ideas would have been introduced exclusively via direct missionary proselytizing is called into question by the existence of examples such as *nhewó* 'devil' (which, as suggested above, would have been adopted indirectly from Portuguese, via an intermediate, indigenous language). Furthermore, the idea that the Jesuits would write catechisms that would not be understood by the indigenous public underestimates the pragmatic orientation of the order, as pointed out by Barbosa (1956):

[&]quot;Tendo sido indispensável aos Padres fazerem-se entender, em assunto inteiramente novo para os índios, não é crível que se dessem ao trabalho de compor, corrigir, limar por anos a fio, e afinal imprimir, com tantos sacrifícios, cousas que não tivessem sentido para os destinatários." (Barbosa 1956)

[&]quot;[...] as "entradas" jesuíticas nos sertões do São Francisco tinham começado já no final do século XVI. Isto significa que os Kariri, quanto ao conhecimento da que poderíamos chamar de "cosmologia européia", não eram *tamquam tabula rasa* como os padres capuchinhos podiam pensar."

²³ Additional lexical similarities which may suggest contacts between eastern Macro-Jê tribes and Jê tribes of Central Brazil are the words for 'tobacco pipe' in Kipeá (pæwi; Mamiani 1877:17) and Xerénte (pawi; Krieger & Krieger 1994:31), and 'banana' in Krenák (jipokan; Rudolph 1909:14) and Xerénte (hêspoķrā; Krieger & Krieger 1994:11).

⁴ Paula Martins (1958) suggests that Krenák *engora* 'Black' is a Portuguese loan (< negro).

unusual in the Kipeá lexicon; the same can be said about words containing a close-mid back vowel $<\hat{o}>$, such as $p\hat{o}h\hat{o}$. That strongly suggests that these words are of non-Kipeá origin. The word for 'hammock', on the other hand, is likely of Kipeá origin, since it can be morphologically analyzed in this language (pi 'to stay' +-te 'nominalizer'; cf. crucru-te 'cup' < crucru 'to drink' +-te 'nominalizer'). Considering the cultural importance of tobacco among the Karirí, it is very likely that $badz\acute{e}$ 'tobacco' (Coroado $bos\acute{e}$ 'tobacco pipe') is indeed of Karirí origin (notice that $Badz\acute{e}$ is also the name of the Karirí tobacco deity; cf. Pompa 2003).

The word for 'cattle' in the Karirí languages probably have the same origin as the word for 'tapir' in Masakará, the northermost language of the Kamakã family, spoken by a tribe which, according to Martius' and Nimuendaju's maps, was a close neighbor of Karirí-speaking tribes. The semantic association between the tapir, a large native mammal, and the cow is not uncommon in South American languages (cf. Tupinambá *tapira* 'tapir' > 'cow'). Thus, it is likely that the Masakará word *krazó* 'tapir' acquired the new meaning of 'cow' and was then adopted, with the latter meaning, by the Karirí languages.

4. LOANWORDS AND KIPEÁ PHONOLOGY

Despite the limited nature of the available documentation, the detection of loanwords also contribute to shed light on a few aspects of Kipeá phonology. Thus, although Mamiani explicitly mentions an open/close distincion concerning back mid-vowels (/ɔ/ vs. /o/, written as <ó> and <ô>, respectively), <ô> only occurs consistently with one word: $p\hat{o}h\hat{o}$ 'valley, swamp.' As it turns out, that is very likely a loan from a Maxakalí language (cf. Maxakalí² pohok 'marsh, swamp'; Popovich & Popovich 2005:58). The fact that Mamiani consistently represented this phonetic peculiarity in both his catechism and grammar shows a remarkable attention to detail, a quality present throughout his works.

Another aspect of Kipeá phonology in which the study of loanwords may prove useful concerns the contrast between the velar consonants /g/ and /ŋ/. Mamiani represents the voiced velar stop /g/ with the graphemes <g, gh>. These graphemes present some noteworthy distributional peculiarities, rarely occuring word-initially and being generally preceded by <n>. While the occurrence of <ng, ngh> is common (songá 'young feathers, dawn', canghi 'good', congo 'to get burned (in the body)', renghé 'old man', etc.), <gh, g> occur without a preceding <n> in only six words in the entire corpus of Kipeá: myghy

²⁵ The source of $p\hat{o}h\hat{o}$ may have been a northern Maxakalí language, such as Pataxó or Kapoxó, instead of Maxakalí proper. The Maxakalí form is here given because an equivalent form is not found in any of the available documents on the other languages. Considering that the Maxakalí languages seemed to have formed a fairly close-knit family, a Pataxó or Kapoxó form should not have differed substantially from Maxakalí pohok.

'beads', *ghinhé* 'beans', *gorá* 'Black person', *ghy* 'to smell (s.t.)', *ighy* 'now',²⁶ and the interjection *agà*.²⁷ In a structuralist reanalysis of Kipeá phonology, Azevedo (1965:3-4) proposes a contrast between a voiced velar stop /g/ and its nasal counterpart /ŋ/. However, the phonemic status of Kipeá /g/ becomes rather questionable when one considers that three of its six occurrences are likely loans (cf. Tables 2 and 4). It seems more plausible that both <ngh> and <gh> represented allophones of a single phoneme.

5.FINAL REMARKS

Any ethnographic map of lowland South America is characteristically full of blank areas, representing gaps in our knowledge of the pre-Columbian ethnographic landscape. Nowhere is that more evident than in eastern Brazil. Martius' (1867) map, one of the first attempts at summarizing the ethnographic information on Brazilian indigenous groups, is a case in point. Contrasting with a concentration of linguistic families between northern Rio de Janeiro and São Paulo, Espírito Santo, northern Minas Gerais, and southern Bahia, the Karirí tribes to the north are shown as ethnographic islands, completely separated from their southern neighbors by an empty space. Even more dramatically, the vast area to the east, comprising the land between the territories occupied by the eastern Macro-Jê tribes and those inhabited by speakers of Northern and Central Jê languages, is shown as an ethnographic "no-man's land." That probably reflects an ethnographic landscape in disarray, already seriously affected by the onslaught of European colonization, which triggered mass relocations, extinctions, and migrations. The lack of ethnographic information on this

²⁶ In the introductions to both his catechism (1698[1942]) and grammar (1699[1877]), Mamiani mentions, in addition to its regular, "harsh" (oclusive) pronunciation, a "hardly perceptible" pronunciation of <gh>, "with aspiration in the throat":

[&]quot;G, sempre he aspero sobre todas as vogaes, & porisso se escreve juntamente com o H. Quando porèm tem accento circumflexo sobre si, se ha de pronunciar brando com aspiração na garganta, que mal se enxergue: como nestas palavras, $Gh\hat{y}$, ser cheirado; Inghe, criança; Rhenge (sic), velho." (Mamiani 1877:2)

As Mamiani explains, such slight pronunciation of $\langle gh \rangle$ would have been indicated by a circumflex sign on the $\langle g \rangle$. Such sign, however, was never actually printed. Thus, the precise pronunciation of $\langle gh \rangle$ (whether as a stop or as a fricative) will remain a mystery unless Mamiani's manuscripts (or corrected copies of the printed materials) are located one day. Notice that in both ghy 'to smell (s.t.)', and ighy 'now', $\langle gh \rangle$ occurs before the high central vowel $\langle y \rangle$ [i]. It is possible that [g] was a transition consonant introduced by sandhi before [i] in onsetless syllables (cf. the loanword myghy 'bead' $\langle Tupf \ mbo(?)yra)$. Corresponding to Kipeá $\langle gh \rangle$ in both ighy 'now' and myghy 'beads', Dzubukuá has $\langle h \rangle$ (ihi, mihi); thus, $\langle g \rangle$ is even rarer in Dzubukuá. According to Lemos Barbosa (1956:413), $\langle g \rangle$ in Tupinambá (which also lacks a voiced velar stop) is used to represent a fricative pronunciation of medial $\langle P \rangle$. The example provided by Lemos Barbosa ($\langle gara \rangle \sim y rara$ 'canoe') presents the same kind of phonological environment seen with mbo?yra; it is possible, then, that such loan already contained a "transitional" velar consonant in its language of origin.

²⁷ Mamiani (1877:96): "agà, aganori: ay, voz de mulher. Lat. Heu dolentis." Interjections are notorious for presenting sounds not found elsewhere in a language's phonemic inventory.

vast area is evident even in Curt Nimuendaju's monumental (and so far unsurpassed) work (IBGE 1981)²⁸. Thus, a vast part of Eastern Brazil is commonly mentioned—and rightly so—as an example of the kind of ethnographic and linguistic knowledge which is lost when languages and cultures become extinct. However, as this paper hopefully demonstrates, valuable information can still be extracted from severely-limited sources. When one undertakes a careful examination of the little linguistic data available, a different picture starts to emerge, revealing lesser-known cultural networks (in addition to more familiar ones, evidenced by the presence of loans from Portuguese or Tupí). Besides providing valuable information which clarify aspects of Kipeá phonology, the loanwords here studied suggest that the Kipeá (Karirí family) were in closer contact with tribes belonging to the Kamakã, Krenák, Maxakalí, and Purí families (their southern neighbors), while convincing evidence of contact with their northern neighbors, speakers of Iatê, ²⁹ is far less robust.

Iatê borrowings found today among several of the region's indigenous groups—of which Lapenda was certainly aware—cannot be seen as counter-evidence to his hypothesis, since they were probably introduced recently in an effort to ascertain an indigenous identity by tribes who are now monolingual in Portuguese (see, for instance, Lapenda (1962), for Xukurú). Costa (1999:55) also mentions some of the borrowings discussed here (wapela 'paper', klai 'White', and tupia 'Black'), failing to notice their Tupí provenance (she treats wapela as a direct Portuguese loan, and klai and tupia as Dzubukuá loans).

²⁸ Such scarcity of ethnographic information, as shown by Nimuendaju's and Martius' maps, does not correspond to an archaeological emptiness. Such areas actually rich in archaeological sites of the Aratu tradition, associated with the diffusion of agriculture and circular villages (Prous 1992). Such archaeological evidence could have been left by tribes who served as an ethnographic bridge (to use Baldus' (1938) expression) between Central Brazil and the areas occupied by the Eastern Macro-Jê tribes discussed here. (I owe this insight to ongoing exchanges with archaeologist Jonas Gregorio de Souza, who specializes in the expansion of Southern Jê cultures).

²⁹ Besides the word for 'maize', which is of Arawák origin, Karirí and Iatê share a few loans of Tupinambá origin (cf. Table 2 and Table 3). After I had finished writing this paper, J. Pedro Viegas Barros (Universidad de Buenos Aires; personal communication in November 11, 2009) called my attention to some rather relevant passages of Geraldo Lapenda's (2005[1965]) grammar of Iatê (whose first edition I had read a while ago but had been unable to consult again while writing the present paper). Lapenda describes some of the loans discussed here and reaches similar conclusions concerning the lack of contact between Karirí and Iatê; he also mentions a Kirirí loan, *aribé* 'plate' (p. 256), which is not mentioned in more recent sources (Sá 2000, Costa 1999). His suggestion that the Iatê-speaking populations are relatively newcomers to the area is tantalizing (Lapenda 2005:262):

[&]quot;A meu ver, poder-se-ia afirmar que os Fulniôs não tiveram grandíssimo contacto com os Cariris; devem ter chegado ao Nordeste quando talvez estes já se haviam quase integrado à língua e à civilização do branco, embora deixando resquícios isolados mas que pouco influíram no iatê. Os fulniôs teriam chegado aqui em tempo relativamente recente, porque deles não há traços toponímicos nem vestígios de nomes de animais, de árvores, de comidas, de utensílios etc. no português regional (o que não sucede com o cariri e principalmente com o tupi), e sua língua quase nenhuma influência recebeu das nações indígenas que já habitavam a região e, por outro lado, em nada influiu nelas."

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