TUPI-GUARANI LOANWORDS IN SOUTHERN ARAWAK: TAKING CONTACT ETYMOLOGIES SERIOUSLY

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'All the caveats are raised on the determination of inherited cognates while loanwords seem to be considered self-explanatory, but in fact the danger of casual resemblance is as great in borrowings as it is in cognates'

Jorge Suárez (1985: 575)

ABSTRACT

This paper seeks to rigorously evaluate a set of claims that lexical items in Southern Arawak languages are loanwords from Tupi-Guarani languages. I show that, in most cases, these hypotheses can be rejected because the Arawak forms in question either have clear internal etymologies or because the noted similarities are too superficial and no coherent or plausible picture for the phonological deviation between the putative loans and their presumed source forms can be offered. In advancing internal etymologies for the target Arawak forms I will also try to cast light on aspects of the historical developments of these languages, as well as raise some so far unacknowledged issues for future research. Next, I consider some plausible cases of Guarani loans in one Southern Arawak language, Terena, explicitly arguing for these contact etymologies and placing these loanwords within a chronological stratum in Terena history. Complications related to dissimilar sources in Arawak-Tupi-Guarani contact and to the status of *Wanderwörter* are also briefly addressed.

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Introduction and background

The goal of this paper is to take a critical look at certain claims that specific lexical items in southern Arawak languages² have their origin in the borrowing of Proto-Tupi-Guarani (PTG) etyma, or of reflexes thereof in individual Tupi-Guarani (TG) languages. Careful attention to phonological and morphological issues - the regularity of sound change, attested word-formation and inflectional patterns, and so on - is what provides the foundation for any acceptable etymology, whether it traces the origins of certain forms to a different, possibly unrelated language (a contact etymology), or whether it traces the form in question to a previous stage of the same tradition (an internal etymology). Moreover, it is based on such formal criteria, and more generally, based on the absence of purely internal etymologies, that loanwords can be securely identified in the first place (see e.g. Jacques 2012; Kroonen 2012; Boček 2013: 15).

As with many other historical hypotheses, etymologies are often suggested by the detection of similarities. These 'first-pass' etymologies are not enough, however: etymologies can be *graded* for their quality and plausibility and, once proposed, can only be fully accepted if further investigation allows them to progress beyond the inspectional level of mere similarities in form and meaning (see e.g. Watkins 1990; Krisch 2010: 313-317; Mailhammer 2015: 429-432). Moreover, as discussed in section 2, if borrowing is to be accepted as an explanation for attested similarities involving lexical material in different languages, careful rejection of alternative hypotheses is necessary. One must, for instance, exclude the possibility that these similarities are only fortuitous (chance similarities). It is important to properly address these claims, not only for their own sake, but because well-supported cases of lexical borrowing are often demanded as a preliminary motivation for further investigation on the possibility that phonological, morphological and syntactic patterns might have been shaped by language contact as well (see Thomason 2001: 91, 2010; Boček 2013: 14). Identified loanwords supported by strong contact etymologies also provide the foundation for inferences concerning the original contact situation that promoted or made possible such transfers of linguistic elements (see e.g. Jacques 2012; Mailhammer 2013; Epps 2015).

Section 3 and its sub-sections focus on a set of controversial claims on the TG origin of certain Arawak lexical items; I will show that these claims fail to meet one or more of the methodological



² I use the label 'southern Arawak' here in the geographic sense of 'Arawak languages spoken to the south of the Amazon river'. See Danielsen (2011: 517-518).

conditions discussed in section 2, and that, therefore, these hypothesized instances of vocabulary transfer should be either rejected or seen with skepticism. Section 4 discusses some clearer instances of Guarani loans in one Southern Arawak language, Terena. In this case I illustrate how appeal to extra-linguistic aspects (the so-called 'external history' of languages) helps in the proposal of more compelling etymologies, notably in those cases where strictly linguistic considerations do not suffice to distinguish between competing accounts. In the domain of the language's internal history, I will show how recent research on the historical phonology of Terena allows one to place the entry of Guarani loans in this language within a specific chronological stratum (section 4.1). I will also discuss one particular contact etymology, that of Terena júki 'salt' (4.2), that touches on some issues of critical importance to this research topic, such as the proper source forms in contact etymologies involving Arawak and TG languages and the status of Wanderwörter.³ Finally, section 5 is dedicated to an overall conclusion of the paper.

1. Methodological preliminaries

Whenever the replication or transmission of lexical material between unrelated languages can be established beyond reasonable doubt, a historical scenario broadly consistent with the diagram below may be inferred (where *A and *X are the reconstructed ancestors of independent language families, A and X, respectively):⁴

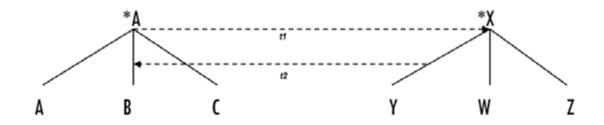


Figure 1. Depiction of the transfer of elements between languages of two different language families at two separate time points (t1 and t2).

³ I understand the concept of *Wanderwort* as denoting a word form that has been borrowed multiple times among languages occupying a significant geographical area. Determination of both the origin and directionality in the diffusion of *Wanderwörter* is often quite difficult (see Trask 2000: 366; Haynie *et al.* 2014).

⁴ The detection of loanwords transferred between related languages is a much more challenging task (see e.g. Greenberg 1957), since it is also necessary to exclude shared retention as a possible explanation for attested similarities. As this paper focuses on postulated contact between unrelated languages, I will limit the methodological discussion to such cases.

Here, the transmission of linguistic elements between languages of families A and X took place in both directions and at two separate and chronologically ordered times. By carefully charting the development of both language families involved, and by considering the distribution of the presumably borrowed items among the daughter languages of the receiving family, it becomes possible not only to identify instances of transmission but to place the borrowing event within a relative chronology of changes in the history of the recipient language (see section 4).

As usual, there is a demand for meeting one's burden of proof (Campbell 2003: 35), showing that alternative explanations are unable to account for the same set of attested similarities (Greenberg 1957: 37; Harrison 2003). In the specific context of contact-based explanations for similarities involving lexical items, often incorrectly taken to involve a 'trivial' identification of loanwords (see the comments in Boček 2013 and the epigraph to this paper), the following conditions should, to the extent possible, be met by the proposed contact etymologies:

- (1) Conditions for proposed contact etymologies:
- (a) Absence of an internal etymology for the presumed loanword;
- (b) Identification of a source language;
- (c) Identification of a source form;
- (d) As complete as possible an account of the form and meaning deviations between the source form and the presumed loanword;
 - (e) Identification of a contact situation.

The conditions proposed above are consistent both with the usual constraints on hypotheses that propose language contact as an explanation (Thomason 2001: 91-95; 2009) and with the tradition stemming from etymological investigations (see Durkin 2009, chapters 5 and 6; Mailhammer 2013 and Boček 2013 for discussion). Conditions (1a), absence of an internal etymology, and (1d), a credible and plausible account of divergences between source and target, are usually taken to be minimal preconditions.⁵ In relation to (1d), however, note that contact etymologies often call for increased

5 Though the availability of an established internal etymology for a given morpheme shows that it is part of a language's inherited vocabulary, contact may have played its part in changing its

tolerance of sporadic and irregular changes than is the case with purely internal etymologies (see Mailhammer 2013: 10, 2015: 434). Conditions related to the identification of a contact situation (1e) and of a source (or donor) language (1b) may seem self-evident but are often ignored in many notorious 'substrate theories' still popular in some quarters (see Thomason 2010: 32-33; Mailhammer 2013 and Mees 2003). To the extent that one or more of these *desiderata* are not met by the proposed contact-based diachronic account, varying degrees of doubt - from mild skepticism to outright rejection - are commendable regarding such claims. Given the focus of the present contribution on phonology and morphology, it is mostly about factors (1a), (1c) and (1d) above that we will be concerned. The most frequent problem with the contact etymologies examined in the next section is the existence of a competing, purely internal etymology that offers a better explanation for the derivation of the form attested in the Arawak language or languages, thus eliminating the possibility that diffusion from another language, at least at the relevant chronology, provides the correct account of its origin. Lack of clarity in the postulation of a specific source form (condition (1c)) and the absence of any plausible account for the formal mismatch between the source and the adapted forms (condition (1d)) are also frequent problems.

2. Southern Arawak and Tupi-Guarani in Contact

Apart from some observed lexical similarities and suggested structural convergence involving Arawak, Tupi-Guarani and Carib languages in the multilingual Upper Xingu (Seki 1999, 2011), and descriptions of the impact of Nheengatu (Amazonian Lingua Geral) on northern Arawak languages (e.g. Ramirez 2001: 32-34; Cruz 2011), few works have been dedicated specifically to the study of contact involving Arawak and Tupi-Guarani languages.

A recent exception has dealt with the history of Kokama and Omagua, two closely related Tupi-Guarani languages. Careful investigations of these languages led to a revision of the hypothesis that certain grammatical morphemes attested in these languages, notably the Hypothetical marker *=mia of Proto-Omagua-Kokama (POK), have been borrowed from some Arawak language (see O'Hagan 2011: 101; Michael & O'Hagan 2016: 19).⁶ In this case, consideration of the known impact Arawak

semantic and even formal properties. The phenomena of calquing and metatypy, in particular for polymorphemic words, are well-known instances in which both inheritance and contact may combine (see Ross 2007; Boček 2013).

⁶ The clitic =mia appears in verbs of counterfactual sentences in both Omagua (including Old Omagua) and Kokama. In the latter language, however, it has a wider distribution, being glossed more precisely as a marker of hypothetical modality (see O'Hagan 2011: 100).

languages had in these Tupi-Guarani languages (which seems restricted to a few open class items) and the existence of a purely internal etymology, have made a convincing case for rejecting the hypothesis that POK *=mia is of Arawak origin.

In this section, the core of the paper, I deal with lexical similarities involving one or more Southern Arawak languages and one or more Tupi-Guarani (TG) languages, often Proto-Tupi-Guarani (PTG). These similarities have been interpreted by some researchers, notably Jolkesky & Baniwa (2012) and Jolkesky (2016), as reason to suspect that the forms attested in these Arawak languages are in fact loans from TG languages. The stronger formulation including a statement of directionality (*from* Tupi-Guarani languages *to* Arawak languages), is explicitly presented in the former source; Jolkesky (2016) is more guarded and non-committal, simply presenting Arawak and TG forms side-by-side and noting that these constitute 'lexical parallels'. I will examine a sample of these claims below, focusing on the stronger (and, hence, more interesting) formulation that includes a TG > Arawak directionality claim, and conclude that these contact etymologies should be either rejected or, at best, that they should be seen with strong skepticism.

Before proceeding, a note on data presentation: Terena forms not followed by reference to a specific source come from my own fieldwork notes. Unless noted otherwise, standard IPA symbols will be used throughout and phonological, instead of phonetic representations will be presented. The circumflex and acute marks in Terena forms represent word-level accent, in each case with distinct phonetic properties whose characteristics are not relevant for the present discussion (the interested reader should consult Ekdahl & Butler 1979; Carvalho 2017c and references therein).

2.1. Terena étakati 'bamboo'

The suggestion that this could be a TG loanword appears in Jolkesky (2016: 391), where the form *e-takati* 'bamboo' from Terena and Kinikinau is presented alongside PTG **tak***ar 'bamboo'.

⁷ Jolkesky (2016) provides an extensive catalogue of observed lexical similarities between languages of different indigenous language groups of South America, not only Arawak and Tupi-Guarani. It constitutes an important contribution that offers not only a bulk of data, but many initial (and often enticing) hypotheses that should be further tested and evaluated, as I hope to do in the present contribution.

⁸ Though the Terena and the Kinikinau peoples recognize each other as distinct ethnic groups, examination of existing data on both speech varieties suffices to show that the two are at best co-dialects of the same language. The same applies to other labels such as 'Guaná' and 'Chané' that are often employed in referring to separate Southern Arawak languages (see Carvalho 2016).

The most obvious formal limitation of the proposed equation is the disparity between the presumed source and the target form, which cannot be explained on general grounds. Another formal problem with the equation is the fact that presumed loanword *étakati* 'bamboo' is arbitrarily segmented as *e-takati*, yet no motivation exists for this.

Though the identification of this form as a loanword is correct, an improved contact etymology can be offered, one that accounts in a principled manner for the word-initial e and leaves no residue unaccounted for. As explained in Carvalho (forthcoming), $\acute{e}takati$ 'bamboo' is in fact a loan from a Northern Guaicuruan language, plausible source forms being Kadiwéu etaGadi 'taquara' (Griffiths 2002: 49) and Mbayá < etagadi>, both of which are reflexes of Proto-Guaicuruan $*t^2aqat^2e$ (Viegas Barros 2013: 233). The derivation of vowel-initial forms in Kadiwéu and Mbayá is a typical development of the northern branch of the Guaicuruan family (Viegas Barros 2013: 92-93). Assuming etaGadi or < etagadi> 'bamboo' as a source form for $\acute{e}takati$ leaves no formal residue unexplained: Terena lacks contrastive voicing and has no uvular consonants, hence the adaptations d>t, d>t from the Guaicuruan source (see Carvalho, forthcoming, for more details).

2.2. Terena ówoku 'house'

Terena $\acute{o}woku$ 'house' is matched to PTG *ok-a by Jolkesky (2016: 390). Though the semantic side of the equation is unproblematic, it is not clear why is it that the adaptation of a source form such as *ok-a would have resulted in $\acute{o}woku$. In fact, $\acute{o}woku$ has a straightforward, if not ordinary, internal etymology.

Synchronically, *ówoku* is transparently analyzable as *-owo-* 'to be, dwell, stay' and *-ku* 'Locative nominalizer' (Ekdahl & Butler 1979: 129-130). Both are *bona fide* members of the Terena inherited stock of morphemes, as shown by cognates such as Proto-Mojeño *-*owo-* 'to be, stay' (Carvalho & Rose, forthcoming; see also Mojeño Ignaciano *awa-sa* 'village', Ott & Ott 1983: 84) and Paunaka *-ki* in *ope-ki-jae* 'below' (Danielsen & Terhart 2014: 236), parallel to Terena *ope-ku-ke* 'below' (literally "in the bone"). There is, therefore, no reason to suspect that Terena *ówoku* is part of the loan stratum of the language's vocabulary.



⁹ The name *terena* was itself adapted by the Mbayá/Kadiwéu as *etelena*, with prothesis, as noted by early 18th century eyewitnesses, such as Sanchez Labrador (see Cardoso de Oliveira 1976: 28). Note also that Portuguese loans indirectly transmitted to Terena via Mbayá/Kadiwéu also show themselves by the presence of otherwise unexplainable anlaut vowels (e.g. *étaruma* 'Tarumã fruit'; cf. Kadiwéu etaloma, Griffiths 2002: 49).

2.3. Paresi hati 'house'

Jolkesky & Baniwa (2012) and later Jolkesky (2016: 391) advance the hypothesis that this form as well is a loan from a TG language. The PTG form *ts-aiti 'nest' is presented as a presumed source and Chiriguano *h-aiti* is also given, perhaps for providing a more significant match involving the word-initial glottal fricative.¹⁰

Paresi *hati* is in fact the Absolute, that is, non-possessed stem for 'house'. In common with many other Arawak languages, Paresi has a suppletively related stem, *-hana*, used whenever possession is expressed for the noun 'house' (Rowan 2008: 89; Brandão 2014: 166-167), thus: *hati* 'house', but e=hana "his house", with the person-marking proclitic e=. Though the relation between the two stems for 'house' is often treated as suppletive, or irregular in Arawak languages (see e.g. Aikhenvald 2003: 133 on Tariana), it is clearly the case that a reflex of the ubiquitous Proto-Arawak Absolute suffix, *-tsi (Payne 1987) or *-\$\psi_i\$ (Payne 1991), occurs crystalized in the Absolute stem. Paresi *hati* 'house' (Absolute) is therefore analyzable as *ha-ti, -ti being the Absolute suffix in the language (see Brandão 2014: 167, who notes this explicitly). In fact, Paresi -hati/hana is comparable to Terena -peti/peno with the same meanings, keeping in mind the fact that *p > h was a regular change in Paresi (see e.g. Carvalho 2016b: 303). In sum then, Paresi -hati has a clear internal etymology, one that calls for the establishment of a morphologically complex etymon *ha-ti, bearing very little formal similarity to the postulated source in a Tupi-Guarani form approximating PTG *ts-aiti or derived from it.

2.4. Terena *-îma* 'husband'

This noun and its cognate forms in Mojeño (Proto-Mojeño *-ima; Carvalho & Rose, forthcoming) are also claimed to be TG loans (Jolkesky & Baniwa 2012), the PTG form *i-men 'her husband' is given as the source form (see also Jolkesky 2016: 391).

Granting some initial plausibility to this hypothesis, it is far from clear that PTG *i-men 'husband' (see Mello 2000: 178) constitutes an adequate source form. In argument function, *i-men 'husband' would appear instead as *i-men-a, with the 'Argumentative case marker'*-a (Cabral 2001).



¹⁰ Enawene-Nawê is also brought into the proposed equation by Jolkesky (2016) but since the language is sparsely documented I will refrain from commenting on it. This language is, however, very closely related to Paresi, to the point that these could be even considered co-dialects of the same language, thus making it very likely that the comments offered here on Paresi apply to Enawene-Nawê as well.

This is the form attested for Old Guarani, $< m\hat{e}na >$ (Montoya 1639: 220v, 221)¹¹ and in modern Paraguayan Guarani $m\acute{e}na$ 'husband', $im\acute{e}na$ 'her husband' (Guasch 1956: 41). Though $< m\hat{e} >$ (phonetically, [me], see Grannier Rodrigues 1990: 22-23) is also attested in Old Guarani for the meaning 'husband', Montoya (1639: 217v) states explicitly that the main use of $< m\hat{e} >$ is as nominal modifier and its basic meaning is 'male' or 'strong, brave' (see e.g. < uruguaçu > 'chicken, hen', but $< uruguaçum \hat{e} >$ 'cock'; Montoya 1639: 217v). There is, therefore, an element of uncertainty in the determination of the most plausible source form and this factor no doubt weakens the contact explanation and hampers a thorough evaluation of this hypothesis.

Setting this issue aside, however, the main challenge to this suggested contact etymology is the existence of a purely internal etymology for Terena -îma and Proto-Mojeño *-ima. For the Campa branch (see e.g. Heitzman 1973: 45), a root *-hime 'husband' can likely be reconstructed (see also Matteson 1972: 214). The root-initial glottal fricative is unstable, having been lost in most daughter languages and being morphophonologically deleted even in those that retain it (see Lawrence 2014: 263-265 on the reflexes of Proto-Campa *-ahi 'first person inclusive' and *-hig 'plural'). Proto-Campa *(h)ime matches Terena -îma and Proto-Mojeño *-ima. Likely cognates are also found in the Xinguan branch, where Waurá -umezi 'husband' (Postigo 2014: 238; where -zi is a Masculine suffix comparable to Mehinaku -şi Corbera Mori 2007: 250). Summing up, both a lack of specificity in the postulation of a putative source form, the opaque nature of the phonological adaptation processes required, and the existence of an internal etymology make it very unlikely that Terena -îma and Proto-Mojeño *-ima, both meaning 'husband', are loanwords originating in Tupi-Guarani languages.

2.5. Terena máreso 'rope'

Jolkesky & Baniwa (2012) propose that Terena/Kinikinau *máreso* 'rope' is a loan from a TG language. PTG *amɨniju (from Mello 2000) and Old Guarani amanedzu are presented as candidate source forms. Jolkesky (2016: 390) gives a more detailed picture of both the semantic and formal aspects of the equation, noting that the PTG *amɨniju means 'cotton' and adds the Asurini do Tocantins form amɨniso. The latter, despite the greater similarity to the Terena form, can be ruled out as a



Old Guarani forms will be given throughout the paper in the original writing, in angled brackets according to standard conventions (see e.g. Trask 2000: 22). Note also the standard convention employed when citing forms from Montoya's Tesoro: using 'v' after a page number when the form in question appears on the back of the page indicated by the given number (e.g. 115v, back of page 115). On the value of the graphemes employed by Montoya, the reader is referred to Grannier Rodrigues (1990).

candidate source for *máreso* 'rope' on geographic grounds alone.

Though máreso 'rope' is synchronically a root in Terena, postulation of Pre-Terena *mare-so is made possible by the existence of wôso 'line, thread' and the bound classifier -so for 'thread-like' objects (Ekdahl & Butler 1979: 185). The remaining formative, -mare- is isolated, however, unless it could be related to the verb *maré-ko* 'to pull out', something that is far from clear now. Be as that may, -mare- is formally anomalous: as shown in 4 below, Terena was subject to a change * $r > \emptyset$ except where followed by *i, therefore suggesting that *-mare- is indeed a loan morpheme. The best hypothesis so far is that this is a loan from the related Campa languages, as seen in forms such as Asháninka mare-ntsi 'arm/wrist band' (Kindberg 1980: 59) and Nomatsigenga i-mare 'his arm/ wrist band', mari-tsi (Shaver 1996: 111, 145). Terena -so 'rope, rope-like object' is a cognate of the classifier -tsa with the same broad meaning attested in the Campa languages (see Mihas 2015: 414 on the Alto Perené variety of Ashéninka and Michael 2006: 25 on Nanti) and elsewhere in the family as well (Matteson 1972: 163-164). Finally, note that accounting for the root of Terena máre-so as loan from the Campa languages has no formal problems, as the presumed source form is identical, while relating máre-so to Old Guarani amanedzu or any other of the TG forms cited requires a loan adaptation of the nasal n as r, an odd mapping, since n and r are clearly distinguished in Terena and nasal stops are preserved as such in uncontroversial Guarani loans (see section 4 below).

2.6. Terena há?i and Mojeño Ignaciano ta?i 'fruit'

Jolkesky (2016: 390) presents a 'lexical parallel' between, on the one hand, Terena -háʔi 'fruit' and Mojeño Ignaciano taʔi 'fruit' and, on the other hand, some Tupi-Guarani forms bearing semantic and formal similarities to them: PTG *ts-aʔij, with the root of 'seed' and a relational prefix, referenced to Rodrigues (while Mello (2002: 158) gives *aʔij instead). Guarani t-aʔij and Chiriguano h-āi are also noted.

The semantic match of 'fruit' and 'seed' is unproblematic, being supported, for instance, by the frequent existence of cross-linguistic polysemy involving these meanings (see List *et al.* 2014).¹² Formally, however, the equation lacks clarity, as it is not obvious which segments are being compared.



Access to the CLICS database of synchronic colexifications (a concept that include both polysemy and semantic vagueness in lexical meanings) yielded 12 instances of different languages where 'seed' and 'fruit' are expressed by the same lexical item. Of these, 10 are indigenous South American languages and two are Austronesian languages (Hawaiian and Malagasy). See http://clics.lingpy.org/main.php.

Overall, a structure of the form $C_1a?V_2$, where C_1 is either a coronal or glottal consonant and V_2 stands for an unrounded high vowel seems to be involved. Once a more precise match is sought, however, insurmountable problems appear for the proposed contact etymology.

Though Jolkesky (2016: 390) parses the Ignaciano and Terena forms as ta-2i and ha-2i, respectively, apparently for yielding more convenient comparanda, these forms are not strictly comparable, despite the closeness between these two languages, as the implied morphological analysis can be shown to be incorrect. Starting with Terena $-h\dot{a}2i$ 'fruit of' (cf. $-kah\dot{a}2i$ 'to bear fruit', with the Verbalizer/Causative $ko-\sim ka-1$), note that although Terena h is frequently the reflex of oral fricatives s or f (see section 4 below), documentary evidence preceding the change in question shows that the glottal fricative in $-h\dot{a}2i$ fruit is etymological (see Schmidt 1903: 574 < hairetikoti> 'Frucht', probably $h\dot{a}2i$ ra $tik\dot{o}ti$ 'fruit of the tree'). Ongoing collaborative work by the author of the present paper and Françoise Rose on the historical linguistics of Terena and Mojeño suggests, however, that the correspondence between Mojeño t and Terena t implied by the match $ta2i: h\dot{a}2i$ is spurious and isolated, thus underscoring the fact that these forms are not comparable. As I show now, the morphology of the Mojeño form both vindicates this conclusion and hampers the acceptance of the contact etymology tracing this form to a TG source.

The Ignaciano form $ta\partial i$ (Ott & Ott 1983: 333) is indeed complex, yet $ta-a-\partial i$ is the correct structure, not $ta-\partial i$ as given in Jolkesky (2016: 390). Mojeño $-\partial i$ is a form-based classifier for objects having a broadly round shape (Olza Zubiri et al. 2002: 231-234). The prefix ta- is a third person nonhuman marker that occurs in Mojeño only, not in its closest relatives, as part of a complex pronominal system for the reference of third person (non-participants of the speech act) that may have evolved through contact with non-Arawak languages (see Rose 2015 for discussion). Given the innovative and non-inherited character of this marker, it is not surprising that Mojeño Ignaciano $ta\partial i$, best glossed as 'its fruit', and Terena $-h\dot{a}\partial i$ 'fruit' do not match. Relevant comparisons internal to Mojeño itself are $ka\partial i$ 'to bear fruit' (Ott & Ott 1983: 556), with the cognate ka- of the Causative/Verbalizer prefix ko- $\sim ka$ - of Terena, and $m\dot{a}\partial i$ re 'fruitless' (Ott & Ott 1983: 333). The latter is a formation with the Privative prefix ma- which, attached to inalienable nouns expresses the meaning 'without' and often triggers the appearance of the suffix -re, an adjectivizer (see Rose 2014: 223-225 for details). Finally, $a\partial i$ 'guapomó' (fruit sp.) (Ott & Ott 1983: 60) is a prefix-less noun that is formally identical to the nominal stem $a-\partial i$ 'fruit' (I define the stem in question as composed of the root -a- and the classifier $-\partial i$).

Mojeño Ignaciano $ta\partial i$ 'its fruit' is, in turn, comparable to Old Mojeño < toi > 'fruit', and a base or stem < oy > is inferable here as well: < yucuquioy > 'fruit of the tree' (cf. < yucuqui > 'tree'; see Marbán 1702: 239 for these forms). The correspondence between Old Mojeño o and Ignaciano o calls, however, for the reconstruction of Proto-Mojeño o 'fruit', confirmed by Mojeño Trinitario o (cf. o 'to bear fruit'; Gill 1993: 19). Comparison of Proto-Mojeño o 'fruit' and Terena o 'fruit' shows that these are not cognate: the o : o correspondence is likewise spurious, as Proto-Mojeño o corresponds regularly to Terena o (cf. o 'samo 'hear'; o 'foi 'night'; o 'work 'hand').

If Mojeño Ignaciano $ta\partial i$ 'its fruit' and Terena $h\dot{a}\partial i$ 'fruit of' were cognate, Jolkesky's (2016: 390) proposed contact etymology could be interpreted as suggesting contact between TG speakers and some shared common ancestor of Terena and Mojeño. Careful investigation of these forms shows not only that these two forms are not exactly comparable but that Ignaciano $ta\partial i$ has a clear internal etymology and is not a TG loanword. The case of Terena $-h\dot{a}\partial i$ 'fruit' is not as clear. The form does not seem to be a cognate of Proto-Mojeño *-o- ∂i 'fruit', as the vowel correspondence and the word-initial h are unexplained. For now, I will leave this form as one of unclear etymology and the hypothesis of a Guarani loanword, although still a viable possibility, requires a more detailed and stronger formulation.

2.7. Terena -ámori, Mojeño Ignaciano -amari 'grandson'

Jolkesky & Baniwa (2012) claim that the Terena kinship noun -ámori and its cognate in Mojeño Ignaciano, -amari, both meaning 'grandson', are loans, citing PTG *emirirô 'grandson' along with its Chiriguano reflex h-amarîro as possible sources, an equation which is repeated in Jolkesky (2016: 391). See Mello (2000: 160) for this reconstructed PTG etymon.

There are important problems with the formal relations implied by the sources and putative loanwords featuring in this contact etymology. The Chiriguano form is added, one presumes, for a more compelling match of the vocalism to the Ignaciano form. Note, however, that Old Mojeño <nuamori> 'my grandson' (Marbán 1702: 374), that is, nu-amori, points unmistakably to Proto-Mojeño *-amori, a perfect match to Terena -ámori; this, in turn, undoes any effect the inclusion of the Chiriguano form might have in advancing a more compelling formal similarity (Proto-Mojeño *o and *a merged as a in Ignaciano; see Carvalho 2017a, Carvalho & Rose, forthcoming). That is, if a single borrowing event is postulated - a far more probable event than one in which Terena and Proto-Mojeño

borrowed independently from a TG language forms that happen to comply with all known regular correspondences between the two languages - then this borrowing took place at a time that precedes the separation between Terena and Proto-Mojeño from their last shared common ancestor. This, in turn, raises a number of problems for the external chronology of the presumed contact events, given the complicated (pre-)history of the Tupi-Guarani presence in the region corresponding to today's eastern and southeastern Bolivia (see Dietrich 2008: 46-47 for some brief comments). Given the specific thematic scope of this volume, I will set this issue aside for future investigation.

As in the case of the Terena and Mojeño forms for 'husband' examined in 3.4, there is a great deal of uncertainty here concerning the exact source form in the proposed contact etymology and even less detail or explicitness on how the formal disparity between the presumed TG source and the putative loan is to be explained. Although Mello (2000) reconstructs for PTG the etymon *emirirô 'grandson', evidence from daughter languages (including Chiriguano h-amarīro) shows that this form was likely consonant-initial at the word level, being marked either by the 'non-specific possessor' prefix t- < *t- or by the third person prefix h- < *ts- (see Jensen 1999: 153; Meira & Drude 2013). This fact adds an additional complication to the proposed contact-based explanation, as loss of a word-initial consonant would be difficult to explain; moreover, undisputable cases of TG loans in Terena never show this development (see section 4). Therefore, I conclude that careful examination of the proposed loans and source forms in this contact etymology make it a very weak proposal based in what looks like an accidental similarity only.

2.8. Baure in 'water'

In their significant and extremely informative work on Jorá, an extinct Tupi-Guarani language of Bolivia, Danielsen & Gasparini (2015: 455) speculate that Baure *in* 'water' could originate in TG, in particular, in the Jorá form *in* 'water' recorded by Wanda Hanke. This proposal is problematic because Baure *in* 'water' has a perfectly reasonable internal etymology and because Jorá *in* 'water' is not clearly of TG origin.

PTG *?i yields i in Sirionó and Yukí, the closest relatives of Jorá, due to the loss of the PTG glottal stop (Mello 2000: 76) and to a well-known shift of the high vowels *i and *i (Crowhurst 2002). The nasal feature in Jorá in 'water', however, has no purely internal explanation, which

¹³ This third person prefix is analyzed as a 'relational morpheme' by some authors (see discussion in Meira & Drude 2013).

points to the non-inherited (borrowed) status of this form. The likely source for Jorá *in* is in fact Baure *in* 'water', a form with a clear Arawak etymology: apocope is a general development in Baure historical phonology (Danielsen 2007: 28, 51-53) and word-final vowels are preserved both in the more conservative Joaquiniano dialect, where *ine* 'water' is attested, and in 19th century data on Baure, where *ine*' water' is likewise found (Adam & Leclerc 1880: 115). A form *ine* 'water' can be therefore established for Early Baure and clear cognates of it are found in Terena *úne* 'water' and Proto-Mojeño *une (Carvalho & Rose, forthcoming; cf. Mojeño Ignaciano *une* 'water', Ott & Ott 1983: 429). Finally, Payne (1991: 425) proposes *uni 'water' as the Proto-Arawak etymon from which these derive as reflexes. In synthesis, while Baure *in* 'water' has a clear Arawak etymology, Jorá *in* 'water' cannot be analyzed as a reflex of the TG etymon for 'water'. Given the geographic proximity of Baure and Jorá speakers and the fact that other apparent Baure loans exist in Jorá (see Danielsen & Gasparini 2015: 455-456), the safest conclusion is to accept that Jorá *in* 'water' was borrowed from Baure, and not the other way around.

2.9. Yine -hiri, Baure -iron 'father'

Jolkesky (2016: 391) matches Yine *hiri*, Baure *iron* to PTG **iru*. A single semantic gloss, 'father', is offered to the whole comparative set for the contact etymology. As discussed below, there are semantic and formal problems with this proposed equation.

PTG *iru is reconstructed with the meaning 'to accompany' in Mello (2000: 163). Alternative reconstructions of this PTG etymon exist but, crucially, the meaning 'father' is never reconstructed: *?irũ 'companion, brother' (Lemle 1971: 119) and ?irũ 'companion' (Schleicher 1998: 329). On the Arawak side of the equation, Baure -iron means in fact 'parent', not 'father', a meaning expressed by the root -ia? instead (see Danielsen 2007: 71, 113, 117). Though these semantic problems already weaken the proposed equation, formal considerations provide the decisive evidence for rejecting this contact etymology.

Yine -hiri 'father', though a simple root synchronically, arguably shows a gender-marking Masculine suffix -ri that has been crystalized as part of the root (see, for instance, -hniri 'husband of' vs. -hninro 'wife of'; tsri 'big/old man' vs. tsro 'big/old woman'; Hanson 2010: 109). The presence of suffixes with a form approximating -ri/i for 'Masculine', opposing -ro/u for 'Feminine', both having Nominalizing functions as well, is a recurring feature among Arawak languages and is clearly reconstructible for the proto-language (see e.g. Matteson 1972: 162-164; Payne 1991: 377; Danielsen

2011: 500, 514)¹⁴. Interesting parallels include Wapixana -*da-ri* 'father', -*da-ro* 'mother' (WLP 2000: 26) and Apurinã -iri 'father', -*iniro* 'mother' (Facundes 2000: 161).¹⁵

Yine -hiri 'father' (arguably <*-hi-ri) has, therefore, a clear internal etymology. Baure -iron 'parent', for which a form -irono can be easily recovered based on internal evidence (Danielsen 2007: 117), has a plausible cognate in Terena -ijêno 'family'. The correspondence of Baure o to Terena e in medial position is not problematical, as Old Baure preserves a more conservative form <nireno> 'my parents' (Adam & Leclerc 1880: 2; that is: ni-ireno), and there is evidence that e > o / Co was a recurring development in the modern variety (see e.g. eteno > eton(o) 'woman'; Danielsen 2007: 52; see the next section for *r loss in Terena). I conclude that there is no compelling reason of either a semantic or a formal nature to believe that Yine -hiri 'father' and (modern) Baure -iron(o) 'parent' have been borrowed from a TG source.

3. Guarani loans in Terena.

In this section I examine forms in Terena that, contrary to those discussed in the preceding sections, are very good candidates for being loanwords originating in Tupi-Guarani languages, or, in some cases, are obviously so. It is safe to say that, for now, Terena is the sole Southern Arawak language for which TG loans can be securely identified in any sizeable number. The presence of these loans can be correlated with certain aspects of the external history of the languages involved and, as I show here, this information is sometimes useful in advancing more compelling etymologies, in those cases where strictly linguistic factors fail to distinguish between competing accounts. After that I will briefly discuss one specific contact etymology including certain nouns for 'salt' attested in Arawak languages and briefly discuss the issues raised by *Wanderwörter*:

The Terena forms in table 1, most of which are nouns, lack internal etymologies and are best explained as relatively straightforward loans from some variety of Guarani.

Table 1

Guarani loans in Terena

¹⁴ A few languages such as Chamicuro and Terena have lost this system, while Baure has reversed the form-function association (see Matteson 1972: 161; Danielsen 2011: 500).

Both sources use <u> to represent IPA i. I adapted the transcriptions accordingly.

	Terena	Possible source
(a)	kâ?i 'monkey'	Old Guarani: <cai> (Montoya 1639: 86)</cai>
		cf. PTG *ka?i (Mello 2000: 172)
(b)	marakaja 'cat'	Paraguayan Guarani: mbarakaja (Guasch 1956: 40)
		Old Guarani: <mbaracaîa> (Montoya 1639: 212)</mbaracaîa>
(c)	kûre 'pig'	Paraguayan Guarani: kure (Guasch 1956: 40)
		Mbyá: kure (Dooley 1998: 63)
(d)	héwoe 'onion'	Paraguayan Guarani: sevói (Guasch 1956: 38)
		Old Guarani < ceboí > (Montoya 1639: 113v)
(e)	kurûhu 'cross'	Guarani de Corrientes kurusu (Cerno 2011: 52)
(f)	hêpi 'price'	Old Guarani: <hepi> 'payment' (Montoya 1639: 153)</hepi>
(g)	kamûsî 'water jar'	Old Guarani: < <i>câmbuchi</i> > (Montoya 1639: 87)
(h)	<morevi> 'tapir'</morevi>	Old Guarani: <mborebí> (Montoya 1639: 216)</mborebí>
	(Taunay 1868: 131)	
(i)	<iandeará> 'god'</iandeará>	Paraguayan Guarani: nandejára 'our lord' (Guasch 1956: 43)
	(Taunay 1868: 134)	
(j)	<tupá> 'god'</tupá>	Paraguayan Guarani: tupã (Guasch 1956: 43)
	(Bach 1916)	cf. PTG *tupã (Mello 2000: 198)
(k)	karápe 'short'	Old Guarani: < <i>Carapé</i> > (Montoya 1639: 91v)
(1)	muríka 'mule'	Old Guarani: < Mburicá > (Montoya 1639: 217)
(m)	nána 'pineapple'	Old Guarani: < <i>Nânâ</i> > (Montoya 1639: 233v)
(n)	júki 'salt'	juki (Guasch 1956: 38)
		cf. PTG *jukir (Mello 2000: 168)
(o)	jutápa 'scissors'	Old Guarani: < Yetapá> (Montoya 1639: 195v)

The loans *kurûhu* 'cross', < tupá> 'god' and < Iandeará> 'god' were certainly diffused as part of the well-documented activity of Missions in the Upper Paraguay and Northern Chaco region (see e.g. Métraux 1948: 82-83; Meliá 2003: 101-107). Not only was Guarani used as a vehicle language for missionary activity, but life in Missions (or reducciones) actively promoted the use of Guarani even (or perhaps specially so) among speakers of other languages; consequently, for many indigenous groups,

Christianization walked hand in hand with 'Guaranization' (see Meliá 2003: 104 for discussion). 16

Thus, while *kurûhu* 'cross' could as well be a loan from Spanish or Portuguese *cruz* 'cross' - with vowel epenthesis in medial and final position in conformity to the exclusively CV shape of Terena syllables - the known role of the Guarani language as the medium for missionary activity makes it likely that Guarani was the immediate source for the Guaná/Terena form. In this case, indeed, we have an interesting first-hand account that relates in a rather striking way to the external context of this contact etymology. José Sanchez Labrador, a well-known Jesuit missionary active in 18th century Upper Paraguay, remarks on the following interaction with two Terena families:

"In the village of the Chanás I met two men who were accompanied by their wives and children, all of them Terena and brothers of the Chanás. I took note of their language. I asked them about the presence of Christians, and whether these had reached their lands. They said that yes, in accordance to their compatriots, and pointing at the Guarani who were present, added: they came dressed like these and with necklaces (rosaries) like those around their necks" (Sanchez Labrador 1910 [1770]: 274-275; my translation).¹⁷

This brief testimony illustrates, single-handedly, both the close association between the Christian missionary activity in the Upper Paraguay and the Guarani, and their interaction with the Terena.

The same context set by the use missionaries made of Guarani as a 'general language' likely accounts for the diffusion of other nouns whose referents consist of Post-Columbian innovations. On $jut\acute{a}pa$ 'scissors', Nordenskiöld (1922: 106) was perhaps the first to note that forms similar to Guarani jetapa, including Guaná/Terena $jut\acute{a}pa$, owe their distribution to Guarani influence (see also Brown 1999: 156). In this case, the change of the vowel u to e is a sporadic outcome that perhaps can be accounted for by identifying an intermediate source - either one specific Guarani dialect or another non-Tupi-Guarani language - where the change in question could be a more general development. For



¹⁶ Note that Old Guarani forms from Montoya (1639) cited here arguably represent 'classical Jesuit Guarani' (Meliá 2003: 107).

¹⁷ In the original: "En la población de los Chanás encontré a dos hombres que estaban con sus mujeres e hijos, todos Terenas y hermanos de los Chanás. Tomé lengua de su país. Preguntéles si tenían noticia de que hubiese cristianos cerca de sus tierras, ó si habían llegado á ellas? Respondieran que sí, según oían á sus paisanos; y que en tiempos pasados habían estado cerca de su tierra: y señalando á los Guaranis, que estaban presentes, añadieron: venían vestidos como éstos, y con collares (rosarios) como aquéllos al cuello" (Sanchez Labrador 1910 [1770]: 274-275).

now, however, I will leave this as a minor open issue. 18

It is not implausible to suppose that some Guarani loans were restricted to the speech of specific 'partialities' of the Guaná (see Carvalho 2016a for discussion and references), likely reflecting their relatively distinct interethnic contacts and sociolinguistic circumstances (a similar pattern has been observed for certain northern Guaicurú loans; see Carvalho, forthcoming). The noun *moreví* 'tapir', for instance, is given in Taunay (1868: 131) as typical of the speech variety of the Layanas (also Layanás). This form is not reconstructed to PTG, but is attested in Old Guarani, modern Paraguayan Guarani and Chiriguano (see Mello 2000: 196).

The noun *kûre* 'domestic pig', though lacking an internal etymology within TG (in the sense that there is no currently accepted PTG etymon from which it derives), can be plausibly related to Guarani influence in the region as well. One reviewer suggests that this form would ultimately derive from Quechua *kutfi*, with the same meaning. I find this proposal implausible for several reasons that I will briefly discuss.

First, the adaptation of the affricate in the presumed source *kutfi* 'pig' as a rhotic *r* seems to defy justification, either in Guarani or in Terena, as both languages have (or had, in the case of Terena) affricates (see Carvalho 2017b, c for Terena). In fact, in those Guarani varieties that were at some point in close contact with Andean cultures, Quechua *kutfi*, ultimately from Spanish *coche* 'pig', was indeed adopted and, in accordance to the above expectations, the source affricates were retained: thus, Chiriguano has *kutfi* 'pig' (see Dietrich 2015). A second issue is that, in spite of the claim made above, that Guarani *kure* is not at the present moment traceable to any PTG etymon, there is indeed evidence suggesting that an internal etymology is after all very likely. Note that the distribution of *kure* 'pig' among Tupi-Guarani languages is not restricted to Guarani, being attested as well in Ka'apor *kure* 'domestic pig' (Kakumasu and Kakumasu 2007:121) and in Guajajara *kurê* 'pig' (Boudin 1966: 91). Although these may turn out to be Nheengatú loans (see e.g. the Stradelli (1929: 296) materials for *<curé* 'Porco de casa'), a basis for the etymologization of this form exists

Alternative scenarios would invoke either a remodeling of jetapa 'scissors' based on ju 'needle' (folk etymology?) or even reveal that $jut\acute{a}pa$ preserves the inherited vocalism and that an etymological relation with ju 'needle' exists. This would take us far afield into Tupi-Guarani historical linguistics and out of the scope of the present paper.

¹⁹ Not surprisingly, *kure* is not included in Brown's (1999) massive overview of 'lexical acculturation' in American indigenous languages, being listed instead in the category of 'native words for foreign referents' (Brown 1999: 155-156).

in almost every Tupi-Guarani language. In the 17^{th} century *Vocabulario na Lingua Brasilica*, the Old Tupi vocabulary attributed to Leonardo do Vale, the form $kur\acute{e}$ ($< cur\^{e}>$) is given as a call used by pig keepers (see Navarro 2013: 244). As noted by Brown (1999: 38), it is common for names of domestic animals to originate in sounds or formulaic interjections used as calls, and this is true as well for the European forms such as French *cochon* or Spanish *coche*. Following a suggestion that, to the best of my knowledge, was first advanced by Wolf Dietrich in an online discussion at the *Etnolinguistica* forum, 20 $kur\acute{e}$ is in turn related to forms such as Guajajara $kur\^{e}r$ 'leftovers, scraps' (Boudin 1966) and Old Guarani $< Cur\'{e}>$ 'what remains after sieving the flour' (Montoya 1639: 109), which have cognates throughout the family; the semantics of the equation is based on the fact that the domestic pig is an animal commonly fed with scraps and leftovers (hence: 'scrapes, leftovers' > 'call used for pigs' > 'pig'). In sum, the source for Terena $k\^{u}re$ 'pig' likely lies in Paraguayan Guarani or Mbyá kure 'pig' which, in turn, has a plausible internal etymology, even if spelling out in detail its internal history remains a task for the future. 21

The Old Guarani source for Terena $h\'{e}woe$ 'onion', 'cceboi' 'onion', is in itself a loan from a form close to Spanish cebolla or Portuguese cebola. Given the maintenance to this day of lleismo (that is, [A] as the realization or value of < ll>) in the Spanish varieties of Paraguay and northwestern Argentina, including the province of Missiones (see Aleza Izquierdo 2010: 68-70), it is safe to assume that a putative Spanish source cebolla had the palatal lateral A in its final syllable. In Terena, where the lateral l exists as an independent phoneme in contrast with the rhotic r, Portuguese/Spanish laterals are usually kept as such: $l\^{a}ta$ 'can' < lata, $al\^{u}ka$ -fo 'to rent' < alugar, $l\^{a}wona$ 'lake, lagoon' < laguna (Sp.). For Guarani, in turn, where l is unattested as a (native) contrastive segment, it becomes less straightforward to predict how phonological adaptation would take place. In modern Guarani varieties, where, one could argue, l was introduced by the long influx of Spanish loans (Gregores & Suárez 1967: 89), l and ll are usually retained as such. However, in 'Jesuit Guarani', the Spanish palatal lateral A was adapted as A0, according to the description of Montoya (1640: 6), who notes the Guarani pronunciation <1 cabayu>2 for <2 caballo>3. Therefore, the known patterns of adaptation for lateral consonants in both Terena and Old Guarani are entirely in agreement with the hypothesis that the noun for 'onion' in Romance languages, most likely Spanish, was first borrowed into Guarani,

²⁰ The interested reader should consult the link: http://listserv.linguistlist.org/pipermail/etnolinguistica/2008-August/001768.html

Note that the word-final correspondence for Guarani *kure* and forms such as Guajajára *kurêr* is accountable in general terms, given the loss of word-final consonants that characterizes Guarani varieties (see Jensen 1999: 143-144).

3.1. Stratigraphy of Guarani loans in Terena.

Once a seriation of phonological and morphological developments has been established for a given language, it becomes possible to place (that is, to date in relative terms) the entry of loanwords in a language as part of specific chronological strata. This is only possible, of course, because sound changes are regular and, yet, they eventually come to an end (see Andersen 2003; Janda 2003). If a sound change is operative at a certain time t1 in the history of a language, any loanwords entering the language after that period may fail to show the effects of this change, though they will certainly show the effects of changes applying at a later moment t2. Two sound changes that took place in the history of Terena are particularly useful for allocating the Guarani loans to a specific stratigraphic layer. An earlier change that marks Terena quite conspicuously as different from its closest relative, Mojeño, consists in the loss of *r in all contexts, except preceding *i (see Carvalho, forthcoming). Some relevant comparative evidence is given in table 2.

Table 2

Comparative evidence for *r loss in Terena, except / *i

	Terena	Proto-Mojeño
Pet 23	-pêjo	*-pero
Name ²⁴	ihâe	*iha-re
Fog	jôu	*ijoru
Nose	-kîri	*-siri
Stone	marîpa	*mari
Grandson	-ámori	*-amori

²² From *seßoja 'onion', the unattested direct adaptation of Spanish cebolla in Old Guarani, loss of the auslaut vowel can be accounted for by a syllabic reanalysis of j (consistent with the word-final accentuation of the outcome <Ceboí> 'onion') and the interpretation of -a as the Argumentative marker. Old Guarani is one of the TG languages where PTG *-a was lost after a vowel (see Cabral 2001: 138-140).



²³ The optional appearance of a transition palatal glide between e and o is a general feature of Terena phonetics, observed in synchronic fluctuations such as -weo ~ -wejo 'to grab, catch'.

²⁴ The suffix *-re in Proto-Mojeño is an Absolute marker used with inalienable nouns when these occur without an overt possessor. In Terena, however, this suffix was absorbed into the root

A later change, extensively discussed in Carvalho (2017b, c), mapped the coronal fricatives s and f of (Early) Terena to the glottal fricative h. Uncontroversial Guarani loans in Terena can be shown to have entered the language between the operation of these two changes, as they do not display the effects of the first change, but were subject to the latter just like every other item of the inherited Arawak lexicon of Terena:

(2) Preliminary stratigraphy of the Guarani stratum in the lexicon of Terena:

Stage I: *operation of* * $r > \emptyset$

marakaja < marakaja 'cat'

 $k\hat{\mathbf{u}}\mathbf{r}e < k\mathbf{u}\mathbf{r}e$ 'pig'

 $kur\hat{u}hu < kurusu$ 'cross'

hévoe < sevoi 'onion'

Stage II: debuccalization of s and \(\)

Note that $kam\hat{u}\hat{j}i$ 'water jar' is not an exception: in Old Guarani <câmbuchi> (Montoya 1639: 87), <ch> stands for an affricate, and affricate realizations of the obstruent often phonemicized as \int are common in some varieties of Guarani in Paraguay and Argentina (see e.g. Cerno 2011: 46-47). As independent evidence suggests that, after the debuccalization of fricatives (Stage II above), the Terena affricates started to show fricative realizations as well, it follows that the fricative in $kam\hat{u}\hat{j}i$ 'water jar' entered the language as an affricate $\mathfrak{t}f$.

The stratigraphic distribution of Guarani loans can be contrasted with that of Spanish and Portuguese loanwords. Spanish loanwords seem to belong to a similar chronological stratum, since they commonly show the effects of fricative debuccalization: hándea < sandia 'watermellon', ahára < azada 'hoe', $p\acute{e}hu$ 'silver' (Ekdahl & Butler 1969) < peso, $k\acute{e}hu < queso$ 'cheese'. Aside from forms that could be of either Portuguese or Spanish origin, such as $hap\acute{a}tu < sapato/zapato$ 'shoes' and $hund\acute{a}ru < soldado$ 'soldier', clear Portuguese loans belong either to this same stratum, for after *-re > -e, thus leading to an allomorphic alternation ihâe \sim -îha, the latter allomorph restricted to possessive constructions.



instance, $l\acute{e}hu < lenço$ 'handkerchief' or, more commonly, to a later stratum that does not show the effects of fricative debuccalization: síngu 'five' < cinco 'five'; aʃúka < açúcar 'sugar'; karîfo < carijó 'Carijó' (hen sp.) and kasátu-fo 'to marry' (-fo is a Verbal thematic suffix) < casado 'married', mêsa < mesa 'table'; pêfou < feiffao 'beans'.

The distribution of these loanword strata in the relative chronology revealed by internal developments - Guarani and Spanish loans preceding the entry of Portuguese loans - is consistent with the known aspects of the external history of Terena speakers, who started to migrate from the Chaco, crossing the Paraguay river and entering the territory of Brazil in the late 18^{th} century, a process that came to completion around 1840 (see Carvalho 2016a and references therein). Existing documentary evidence on the language, notably Taunay (1868) and Schmidt (1903), reveal that the debuccalization of fricatives s and s took place only around the turn of the s and s centuries or in the first decades of the latter.

3.2. Terena júki 'salt' and the value of careful contact etymologies

Jolkesky & Baniwa (2012) and, later, Jolkesky (2016: 391), correctly identify Terena júki 'salt' as a form that likely goes back to a TG language, comparing it to PTG *jukir 'salt'. The equation they offer is, more precisely, one that includes this PTG etymon and the following Arawak forms: Baniwa jokira, Yavitero jukira, Bahuana jukira and Terena juki-na. No specific source is offered for Terena juki-na, presumably included instead of the form júki 'salt' because -na would make the match with the other Arawak forms more impressive. Nevertheless, the comparison is clearly untenable, and misses some important bits of information.

The Terena suffix -na is a Possessive suffix used when an alienable noun occurs in a possessive construction (e.g. \emptyset -mesá-na 'his/her table'; \emptyset - is the realization of a third person possessor/Subject in the language). This suffix -na constitutes the sole productive reflex of a more complex system of Possessive markers reconstructed for Proto-Arawak and still attested in many languages of the family (see Payne 1987, 1991 for discussion). Including it in the etymology is not only misleading, as Baniwa, Yavitero and Bahuana word-final [ra] are unanalyzable and have no etymological relation whatsoever to Terena -na, but is also detrimental to an understanding of the Arawak-TG language



^{25 &#}x27;Terena' here is to be understood in the broad sense of Carvalho (2016a), that is, as referring to the common language shared by members of the different partialities of the people known as 'Guaná'.

contact.

All Arawak forms presented by Jolkesky (2016) for the meaning 'salt' are loans from at least two different reflexes of the PTG etymon *jukir 'salt'. Northern Amazonian languages like Baniwa and Yavitero borrowed from a source in Nheengatu (Amazonian Lingua Geral), a language where the reflex of PTG *jukir is jukira, after the absorption of the PTG argumentative case marker *-a as part of the root (see Cabral 2001: 142; also, Rodrigues 1996). In Terena, however, the TG source for this form was likely a variety of Guarani, all of which have lost every trace of the suffix *-a (Cabral 2001: 137) and, after losing most or all root-final consonants, show reflexes of PTG *jukir 'salt' that are identical to Paraguayan Guarani juki (Guasch 1956: 38; see also Jensen 1999: 143-144; Mello 2000: 168). As a consequence, though it is correct to state, if a reconstructed etymon in the donor language's family is set as the *terminus a quo* of our contact etymology, that Terena *júki* and Yavitero jukira, both meaning 'salt', can be traced back to PTG *jukir 'salt', it is also the case that ignoring the information on the immediate TG sources for these loanwords misses critical information on the relevant contact situations and opens the possibility for highly problematic formal equations in the proposed etymologies. Without the knowledge that PTG *jukir, or, more precisely, PTG *jukir-a, has a reflex juki in the TG languages more likely to have been in contact with Terena, there would be no way to derive Terena júki from this PTG source in a compelling and general way, producing thus a very weak etymology.

3.3. A Brief Note on Wanderwörter.

A substantial number of the TG loanwords in Arawak languages correctly identified by Jolkesky (2016: 391) arguably result from the spread of Nheengatú, including names for certain domesticated plants and fauna items, including the forms for 'salt' discussed in the preceding section (see Rodrigues 1996 for a masterful review of the historical development of the Tupi-Guarani *Linguas Gerais*). A problem raised by many of these forms is that they likely constitute *Wanderwörter*, that is, forms widely diffused in certain regions, whose history includes multiple links in transmission chains and present particular difficulties for historical linguists (see e.g. Haynie *et al.* 2014). In fact, many of these forms reached speakers and languages that never had any kind of direct or face-to-face interaction



The following observations are in order: Old Guarani seems to have retained the case marker *-a as a functioning morpheme, at least with consonant-final roots, and other Guarani varieties have retained reflexes of this morpheme as word-final vowels crystallized in root (e.g. Paraguayan Guarani óga 'house' < *ok-a). The precise relation between the two changes - root-final consonant loss and loss of the suffix *-a - is a matter of controversy (see Cabral 2001 for discussion and references).

with the speakers of the source languages, thus adding uncertainty concerning the contact situations behind their diffusion: thus, Nadahup languages, such as Hup, adopted forms ultimately originating in Nheengatú through the intermediation of the Tukano language (see e.g. Epps 2015: 586). For Terena júki 'salt', and perhaps other forms of ultimate TG origin noted in 4, the possibility that intermediate transmission chains through other languages may be involved is both an additional difficulty and an intriguing path for further research. The fact that Kadiwéu has a form jóki 'salt' (Griffiths 2002: 225) and that close cultural interaction between Terena speakers and speakers of Northern Guaicuruan languages (Mbayá and Kadiwéu) has left noticeable traces in the lexicon of Terena (see Carvalho, forthcoming), makes this a plausible hypothesis. In those cases where a given Wanderwort has no established etymology tracing its origins to a specific language or group, additional complications arise. As an example, some of the Warazú words that Ramirez & França (2017: 48) deem as Arawak in origin, like kabe 'dog', are widespread in the whole region of the Upper Madeira and its tributaries and, for this reason, are very difficult to incorporate in detailed and informative contact etymologies. In these cases, the establishment of specific source languages is an even more daunting if not entirely hopeless task.

Conclusions

This paper examined many lexical similarities noticed between southern Arawak and Tupi-Guarani languages that have been advanced in the published literature as evidence for the transmission or replication of Tupi-Guarani lexical items in the Arawak languages in question. By applying, to these comparisons, the same standards of rigor usually applied to internal etymologies, and following certain methodological guidelines designed to establish contact as a plausible explanation for attested similarities, I was able to show that most of these claims can be rejected. As such, the proposed equations of lexical items in Arawak languages with their presumed sources in Tupi-Guarani languages can be deemed as accidental or historically-uninteresting similarities, that is, similarities that point neither to common origin nor, as intended by their proponents, as evidence of contact. Moreover, by showing that the Arawak forms in question have credible internal etymologies I have clarified or further illustrated aspects of the historical development of these languages, as well as raising issues that were so far unacknowledged, such as the unclear status of Terena $-h\dot{a}\partial i$ 'fruit' and the inference of past contacts between Terena and Arawak languages of the Campa branch.

For one specific southern Arawak language, Terena, I presented a set of forms that can be reliably traced to a source in one or more Guarani varieties, with Old or 'Jesuitic' Guarani having a



fair share of importance in the processes behind the diffusions of these loanwords. In arguing for these contact etymologies, I relied on both purely internal linguistic factors and on non-linguistic factors characterizing the external history of the languages in question. I also succeeded in establishing an overall chronology for the entry of these forms via horizontal transfer in Terena history by relating it to a set of chronologically ordered phonological developments. Further complications were addressed as well, particularly those related to the status of certain items as *Wanderwörter* - thus implying the plausible existence of multiple transmission chains from their etymological sources, when these can be identified at all - and to the fact that Proto-Tupi-Guarani etyma do not constitute plausible or workable sources for including in contact etymologies with Arawak languages. These two factors should not be missed in future investigations of this topic.

REFERENCES

Adam, L. and C. Leclerc. 1880. *Arte de la Lengua de los Indios Baures de Provincia de los Moxos*. Bibliothèque Linguistique Américaine, Tome VII. Paris: Maisonneuve y Cia. Libreros Editores.

Aikhenvald, Alexandra. 2003. A Grammar of Tariana. Cambridge: CUP.

Aleza Izquierdo, Milagros. 2010. Fonética y Fonología. In: Milagros Aleza Izquierdo and José Maria Enguita Utrilla (eds.) *La Lengua Española en América: Normas y Usos Actuales*. Universitat de València.

Andersen, Henning. 2003. Introduction. In: Henning Andersen (ed.) *Language Contacts in Prehistory: Studies in Stratigraphy*. Amsterdam: John Benjamins: 1-10.

Bach, J. 1916. Datos sobre los Indios Terenas de Miranda.

Boček, Vít. 2013. Etymology and Language Contact Studies: Some Notes on Mutual Relationships. In: Bohumil Vykypel and Vít Boček (eds.) *Etymology: An Old Discipline in New Contexts*. Studia Etymologica Brunensia 16. Praha: Lakladatesltví Lidové noviny: 13-21.

Boudin, Max. 1966. *Dicionário de Tupi Moderno: Dialeto Tembé-Ténêtéhar do Alto Rio Gurupi*. São Paulo: Conselho Estadual de Artes e Ciências Humanas.

Brandão, Ana Paula. 2014. A Reference Grammar of Paresi. Doctoral Dissertation, University of



Texas at Austin.

Brown, Cecil H. 1999. *Lexical Acculturation in Native American Languages*. New York, Oxford: OUP.

Cabral, Ana Suelly. 2001. Observações Sobre a História do Morfema -a da Família Tupi-Guarani. In: F. Queixalós (ed.) Des Noms et des Verbes en Tupi-Guarani: État de la Question. München: LINCOM Europa.

Campbell, Lyle. 2003. Beyond the Comparative Method? In: Barry Blake and Kate Burridge (eds.) *Historical Linguistics* 2001. Amsterdam: John Benjamins: 33-57.

Cardoso de Oliveira, Roberto. 1976. *Do Índio ao Bugre. O Processo de Assimilação dos Terena*. Rio de Janeiro: Francisco Alves.

Carvalho, Fernando O. de. 2016a. Terena, Chané, Guaná and Kinikinau are One and the Same Language: Setting the Record Straight on Southern Arawak Linguistic Diversity. *LIAMES (Linguas Indígenas Americanas)* 16 (1): 39-57.

Carvalho, Fernando O. de. 2016b. Internal and Comparative Reconstruction in Yawalapiti: Palatalization and Rule Telescoping. *International Journal of American Linguistics* 82 (3): 285-316.

Carvalho, Fernando O. de. 2017a. On Terena (Arawakan) *-pâho* 'mouth': Etymology and Implications for Internal Classification. *Journal of Language Relationship* 15 (2): 69-86.

Carvalho, Fernando O. de. 2017b. Philological Evidence for Phonemic Affricates and Diachronic Debuccalization in Early Terena (Arawak). *Bol. Mus. Para. Emilio Goeldi. Cienc. Hum.* 12 (1): 157-171.

Carvalho, Fernando O. de. 2017c. Fricative Debuccalization and Primary Split in Terena (Arawak) Historical Phonology. *International Journal of American Linguistics* 83 (3): 509-537.

Carvalho, Fernando O. de. Forthcoming. Arawakan-Guaicuruan Language Contact in the South

American Chaco. International Journal of American Linguistics (April/2018 issue).

Carvalho, Fernando O. de and Françoise Rose. Forthcoming. Comparative Reconstruction of Proto-Mojeño and the Diversification of Mojeño Dialects. *LIAMES (Línguas Indígenas Americanas)*.

Corbera Mori, Angel. 2007. Aspectos da Estrutura Nominal em Mehináku (Arawak). *Estudos Linguísticos* 36: 249-257.

Crowhurst, Megan. 2002. Un Intercambio de Vocales Altas en Sirionó (Tupi-Guarani). *LIAMES* 2: 7-28.

Cruz, Aline da. 2011. Fonologia e Gramática do Nheengatú: A Língua Geral Falada pelos Povos Baré, Warekena e Baniwa. Utrecht: LOT.

Danielsen, Swintha. 2007. Baure: An Arawak Language of Bolivia. Leiden: CNWS.

Danielsen, Swintha. 2011. The Personal Paradigms in Baure and Other Southern Arawakan Languages. *International Journal of American Linguistics* 77 (4): 495-520.

Danielsen, Swintha and Noé Gasparini. 2015. News on the Jorá (Tupi-Guarani): Sociolinguistics, Description and Classification. *Bol. Mus. Para. Emílio Goeldi Cienc. Hum.* 10 (2): 441-466.

Danielsen, Swintha and Lena Terhart. 2014. Paunaka. In: Pieter Muysken and Milly Crevels (eds.) *Las Lenguas de Bolivia, Vol. 3.* La Paz: Plural Editores: 221-258.

Dietrich, Wolf. 2008. Nuevos Aspectos de la Clasificación del Siriono y del Yuki (Tupi-Guarani). In: Cristina Messineo, Marisa Malvestitti and Roberto Bein (eds.) *Estudios en Lingüística y Antropología: Homenaje Ana Gerzenstein*. Buenos Aires: UBA: 39-48.

Dietrich, Wolf. 2015. Chiriguano Dictionary. In: Mary Ruth Key and Bernard Comrie (eds.) *The Intercontinental Dictionary Series*. Leipzig: Max Planck Institute for Evolutionary Anthropology (available online at: http://ids.clld.org/contributions/289, accessed 2018-01-24).

Dooley, Robert. 1998. Léxico Guarani, Dialeto Mbyá. Porto Velho: Sociedade Internacional de



Linguística.

Durkin, Philip. 2009. The Oxford Guide to Etymology. Oxford: OUP.

Ekdahl, Elizabeth M. and Nancy Butler. 1979. *Aprenda Ter*êna. Brasília: Summer Institute of Linguistics (SIL).

Epps, Patience. 2015. Historical Linguistics and Socio-Cultural Reconstruction. In: Claire Bowern and Bethwyn Evans (eds.) *The Routledge Handbook of Historical Linguistics*. New York: Oxford: 579-597.

Facundes, Sidney. 2000. The Language of the Apurina People of Brazil (Maipure/Arawak). Doctoral Dissertation, SUNY at Buffalo.

Gill, Wayne. 1993. Diccionario Trinitario-Castellano, Castellano-Trinitario. Misión Nuevas Tribus.

Grannier Rodrigues, Daniele M. 1990. Fonologia do Guarani Antigo. Campinas: Editora da Unicamp.

Greenberg, Joseph. 1957. The Problem of Linguistic Subgroupings. In: Joseph Greenberg. *Essays in Linguistics*. Chicago: The University of Chicago Press.

Gregores, Emma and Jorge Suárez. 1967. *A Description of Colloquial Guarani*. Janua Linguarum. The Hague: Mouton & Co.

Griffiths, Glyn. 2002. Dicionário da Língua Kadiwéu. Cuiabá: SIL.

Guasch, Antonio. 1956. El Idioma Guarani: Gramática y Antologia de Prosa y Verso. Asunción: Casa América.

Hanson, Rebecca. 2010. A Grammar of Yine (Piro). Doctoral Dissertation, La Trobe University.

Harrison, S. P. 2003. On the Limits of the Comparative Method. In: Brian Joseph and Richard Janda (eds.) *The Handbook of Historical Linguistics*. Blackwell Publishing: 213-243.



Haynie, Hannah, Claire Bowern, Patience Epps, Jane Hill and Patrick McConvell. 2014. Wanderwörter in Languages of the Americas and Australia. *Ampersand* 1: 1-18.

Heitzman, Allene. 1973. Reflexes of Some Proto-Campan Consonants in Modern Campan Languages and Dialects. MA Thesis, University of Kansas.

Jacques, Guillaume. 2012. A Siouan-Algonquian Wanderwort: The Name of the Bear. *Amerindia* 36: 187-193.

Janda, Richard. 2003. Phonologization as the Start of Dephoneticization - Or: On Sound Change and its Aftermath. In: Brian Joseph and Richard Janda (eds.) *The Handbook of Historical Linguistics*. Blackwell Publishing: 401-422.

Jensen, Cheryl. 1999. Tupi-Guarani. In: R. M. W. Dixon and Alexandra Aikhenvald (eds.) *The Amazonian Languages*. Cambridge: CUP: 125-164.

Jolkesky, Marcelo and Edilson Baniwa. 2012. Distinguindo Léxico Endógeno e Exógeno nas Línguas Arawak. *International Meeting Americanists 2012*

Jolkesky, Marcelo. 2016. Estudo Arqueo-Ecolinguístico das Terras Tropicais Sul-Americanas. Doctoral Dissertation, Universidade de Brasília (UnB).

Kakumasu, James and Kiyoko Kakumasu. 2007. *Dicionário por Tópicos Kaapor-Português*. Cuiabá: SIL.

Kindberg, Lee. 1980. Diccionário Ashaninca. Peru: Instituto Lingüístico de Verano (ILV).

Krisch, Thomas. 2010. Etymology. In: Sylvia Luraghi and Vit Bubenik (eds.) *The Continuum Companion to Historical Linguistics*.

Kroonen, Guus. 2012. Non-Indo-European Root Nouns in Germanic: Evidence in Support of the Agricultural Substrate Hypothesis. *A Linguistic Map of Prehistoric Northern Europe*. Mémoirs de la Société Finno-Ougrienne 266. Helsinki: 239-260.



Lawrence, Aimee. 2014. Reconstruction of Proto-Kampa Verbal Morphology. *Proceedings of the* 38th Annual Meeting of the Berkeley Linguistics Society: 256-271.

Lemle, Miriam. 1971. Internal Classification of the Tupi-Guarani Linguistic Family. In: John Bendor-Samuel (ed.) *Tupi Studies I.* Summer Institute of Linguistics: 107-129.

List, Johann-Mattis, Thomas Mayer, Anselm Terhalle and Matthias Urban. 2014. CLICS Database of Cross-Linguistic Colexifications. Forschungszentrum Deutscher Sprachatlas (Version 1.0, online available at http://clics.lingpy.org/main.php).

Mailhammer, Robert. 2013. Towards a Framework of Contact Etymology. In: Robert Mailhammer (ed.) *Lexical and Structural Etymology*. Berlin: Mouton de Gruyter: 9-31.

Mailhammer, Robert. 2015. Etymology. In: Claire Bowern and Bethwyn Evans (eds.) *The Routledge Handbook of Historical Linguistics*. New York: Routledge: 423-441.

Marbán, Pedro. 1702. *Arte de la Lengua Moxa, com su vocabulário, y cathecismo*. Lima: Imprenta Real de Joseph de Contreras.

Matteson, Esther. 1972. Proto-Arawakan. In: Esther Matteson, Alva Wheeler, Frances Jackson, Nathan Waltz and Diana Christian (eds.) *Comparative Studies in Amerindian Languages*. The Hague: Mouton: 160-242.

Mees, Bernard. 2003. Stratum and Shadow: A Genealogy of Stratigraphy Theories from the Indo-European West. In: Hennig Andersen (ed.) *Language Contacts in Prehistory: Studies in Stratigraphy*. Amsterdam: John Benjamins: 11-44.

Meira, Sérgio and Sebastian Drude. 2013. Sobre a Origem Histórica dos "Prefixos Relacionais" das Línguas Tupi-Guarani. *Cadernos de Etnolingüística* 5 (1).

Meliá, Bartolomeu. 2003. *La Lengua Guarani en el Paraguay Colonial*. Asunción: Centro de Estudios Paraguayos Antonio Guasch.

Mello, Antônio A. 2000. Estudo Histórico da Família Lingüística Tupi-Guarani. Doctoral



Dissertation, Universidade Federal de Santa Catarina.

Métraux, Alfred. 1948. The Guarani. In: Julian H. Steward (ed.) *Handbook of South American Indians. Vol. 3, The Tropical Forest Tribes*. Smithsonian Institution. Washington: US Government Printing Office: 69-94.

Michael, Lev. 2006. La Incorporación Verbal y los Clasificadores Nominales en el Idioma Nanti. *Proceedings of the Second Conference on the Indigenous Languages of LatinAmerica (CILLA)*. (available online: http://www.ailla.lib.utexas.edu/site/cilla2/Michael CILLA2 nanti.pdf).

Michael, Lev and Zachary O'Hagan. 2016. A Linguistic Analysis of Old Omagua Ecclesiastical Texts. *Cadernos de Etnolingüística*, *Série Monografias 4*.

Mihas, Elena. 2015. A Grammar of Alto Perené (Arawak). Berlin: Mouton de Gruyter.

Montoya, Antonio Ruiz de. 1639. Tesoro de la Lengua Guarani. Madrid.

Montoya, Antonio Ruiz de. 1640. Arte de la Lengua Guarani. Madrid.

Navarro, Eduardo de Almeida. 2013. Dicionário de Tupi Antigo, A Língua Indígena Clássica do Brasil. São Paulo: Editora Global.

Nordenskiöld, Erland. 1922. Deductions Suggested by the Geographic Distribution of Some Post-Columbian Words Used by the Indians of South America. Göteborg: Elanders Boktryckeri Aktiebolag.

O'Hagan, Zachary. 2011. Proto-Omagua-Kokama: Grammatical Sketch and Prehistory. BA Thesis, UC Berkeley.

Olza Zubiri, Jesús, Conchita Nuni de Chapi and Juan Tube. 2002. *Gramática Moja Ignaciana (Morfosintaxis)*. San Cristobal: Universidad Católica del Táchira.

Ott, Willis and Rebecca Ott. 1983. *Diccionario Ignaciano y Castellano con Apuntes Gramaticales*. Cochabamba: Instituto Lingüístico de Verano (ILV).



Parker, Stephen G. 1995. Datos de la Lengua Iñapari. Yarinacocha: Instituto Lingüístico de Verano (ILV). Payne, David. 1987. Some Morphological Elements of Maipuran Arawakan. Languages Sciences 9: 57-75. . 1991. A Classification of Maipuran (Arawakan) Languages Based on Shared Lexical Retentions. In: Desmond Derbyshire and G. K. Pullum (eds.) *Handbook of Amazonian Languages*, Vol. III. Berlin: Mouton de Gruyter. Postigo, Adriana. 2014. Língua Wauja (Arawak): Uma Descrição Fonológica e Morfossintática. Doctoral Dissertation, UNESP. Ramirez, Henri. 2001. Línguas Arawak da Amazônia Setentrional: Comparação e Descrição. Manaus: EDUA. Rodrigues, Aryon. 1996. As Línguas Gerais Sul-Americanas. PAPIA 4 (2): 6-18. Rose, Françoise. 2014. Negation and Irrealis in Mojeño Trinitario. In: Lev Michael and Tania Granadillo (eds.) Negation in Arawak Languages. Leiden, Boston: BRILL: 216-240. Rose, Françoise. 2015. Innovative Complexity in the Pronominal Paradigm of Mojeño: A Result of Contact? Ross, Malcolm. 2007. Calquing and Metatypy. Journal of Language Contact 1 (1): 116-143. Rowan, Orlando. 2008. Dicionário Paresi-Português. Cuiabá: Sociedade Internacional de Lingüística. Sanchez Labrador, José. 1910. El Paraguay Católico. Tomo II. Buenos Aires: Imprenta Hermanos. Seki, Lucy. 1999. The Upper Xingu as an Incipient Linguistic Area. In: R. M. W. Dixon and Alexandra Aikhenvald (eds.) The Amazonian Languages. Cambridge: CUP: 417-430.

. 2011. Alto Xingu: Uma Área Linguística? In: Bruna Franchetto (ed.) Alto Xingu: Uma

Sociedade Multilingue. Rio de Janeiro: Museu do Índio, FUNAI: 57-85.

Schleicher, Charles O. 1998. Comparative and Internal Reconstruction of Proto-Tupi-Guarani. Doctoral Dissertation, University of Wisconsin-Madison.

Schmidt, Max. 1903. Guaná. Zeitschrift für Ethnologie 35 (4): 560-604.

Shaver, Harold. 1996. *Diccionário Nomatsiguenga-Castellano*. Peru: Instituto Lingüístico de Verano (ILV).

Stradelli, Ermano. 1929. Vocabularios da Lingua Geral Portuguez-Nheêgatú e Nheegatú-Portuguez. *Revista do Instituto Historico e Geographico Brasileiro*, Tome 104, Volume 158: 9-768.

Suárez, Jorge. 1985. Loan Etymologies in Historical Method. *International Journal of American Linguistics* 51 (4): 574-576.

Taunay, Alfredo. 1868. Scenas de Viagem: Exploração entre os Rios Taquary e Aquidauana no Districto de Miranda. Rio de Janeiro: Typographia Americana.

Thomason, Sarah G. 2001. Language Contact: An Introduction. Edinburgh: EUP.

______. 2009. How to Establish Substratum Interference. In: Yasuhiko Nagano (ed.) *Issues in Tibeto-Burman Historical Linguistics*. Senri Ethnological Studies 75. Osaka: National Museum of Ethnology: 319-328.

. 2010. Contact Explanations in Linguistics. In: Raymond Hickey (ed.) *The Handbook of Language Contact*. Wiley-Blackwell: 31-47.

Trask, Robert. 2000. *The Dictionary of Historical and Comparative Linguistics*. London: Taylor & Francis.

Viegas Barros, José Pedro. 2013. Proto-Guaicurú. München: LINCOM Europa.

Watkins, Calvert. 1990. Etymologies, Equations and Comparanda: Types and Values, and Criteria for Judgment. In: Philip Baldi (ed.) *Linguistic Change and Reconstruction Methodology*. Berlin:

Mouton de Gruyter: 289-303.

WLP (Wapishana Language Project). 2000. Scholar's Dictionary and Grammar of the Wapishana Language. Lethem, Guyana: Wapishana Language Project.