

To not have or to not be: Negative Verbs in Proto Tukanoan

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Abstract

A number of Tukanoan languages of South America are noted for their parallel semantically negative verbs ‘to not be’ and ‘to not have’. This paper reconstructs the history of both forms, showing that they developed independently as complex forms first in Proto Tukanoan (‘to not have’) and then in Proto Eastern Tukanoan (‘to not be’), and also proposes two negative particles present in these proto stages of the language family: **bã* (Proto Eastern Tukanoan) and **p’e* (Proto Tukanoan). These results will be discussed in the context of two negative cycles: the established Negative Existential Cycle and the recently proposed Privative Cycle.

Keywords: Tukanoan, Proto Tukanoan, negative existential, privative, non-standard negation

1. Introduction

The sentence “He was hairless”, which expresses being without something, demonstrates privative negation.¹ This is a type of non-standard negation which is conceptually similar to a negative existential construction, expressing the absence of something (Veselinova 2013). In the Tukanoan languages of the Amazonian basin in South America, negative meanings of this sort are given through two negative verb forms: the negative existential ‘to not be’ and the privative ‘to not have’. Although a verb with a negative existential meaning is found in nearly all the Tukanoan languages today, its form in Eastern Tukanoan (ET) differs greatly from its form in Western Tukanoan (WT). Moreover, its form and meaning in WT show more similarity with a privative verb found in only three languages of the ET group.

The aim of this paper is to consider whether a diachronic path of development can be reconstructed to an earlier stage of the language, and whether these forms show evidence of cyclic regeneration, a common characteristic of negative constructions worldwide. The similarities between these verbs have been noted on numerous occasions (Stenzel 2018: 180), and there has been some attempt to address the diachronic developments of such verbs within individual languages, such as Ramirez (1997: 168–169) on Tukano, as well as some discussion of the negative existential in relation to the existential verb (see Malone 1988, and Stenzel 2018 on Kotiria and Wa’ikhana). However, this is the first time that an attempt at reconstruction has been made of both verb forms to the level of Proto Tukanoan.

The context of the Tukanoan languages, their history and subfamilies will be given in 2. 2.2. will present the current conversation on negative cycles and non-standard negation: of particular relevance for this paper are the Negative Existential Cycle (Croft 1991) and the Privative Cycle (Rybka & Michael 2019; Van der Auwera & Krasnoukhova 2020).

¹ Thanks to Matheus C.B.C. Azevedo and Alejandro García Matarredona for their help with translations, and to Martine Bruil, Joey Lovstrand, and Chris Lucas for their valuable comments.

Following this, the data will be presented in two parts, discussing first the negative existential form found in ET (3.1.) and then the negative verb found in WT and some ET languages (3.2.). 4 offers a summary and discussion of the results, with particular reference to the negation cycles, before the conclusion is given in 5.

2. Background

2.1. Tukanoan languages

The Tukanoan languages form a language family of around 29 languages, some twenty of which are still spoken in Colombia, Brazil, Ecuador, and Peru (Chacon 2014). There are two main geographical groupings: the languages gathered in the Vaupés river basin on the Colombian-Brazilian border; and the languages on the Ecuadorian-Colombian border. One language, Máihikì, is separated from both groups and is found in Peru. As will be shown, these geographical groupings broadly correspond to the proposed internal classification of the family tree, which has at least an Eastern branch and a Western branch. The map in Figure 1 shows only living languages.

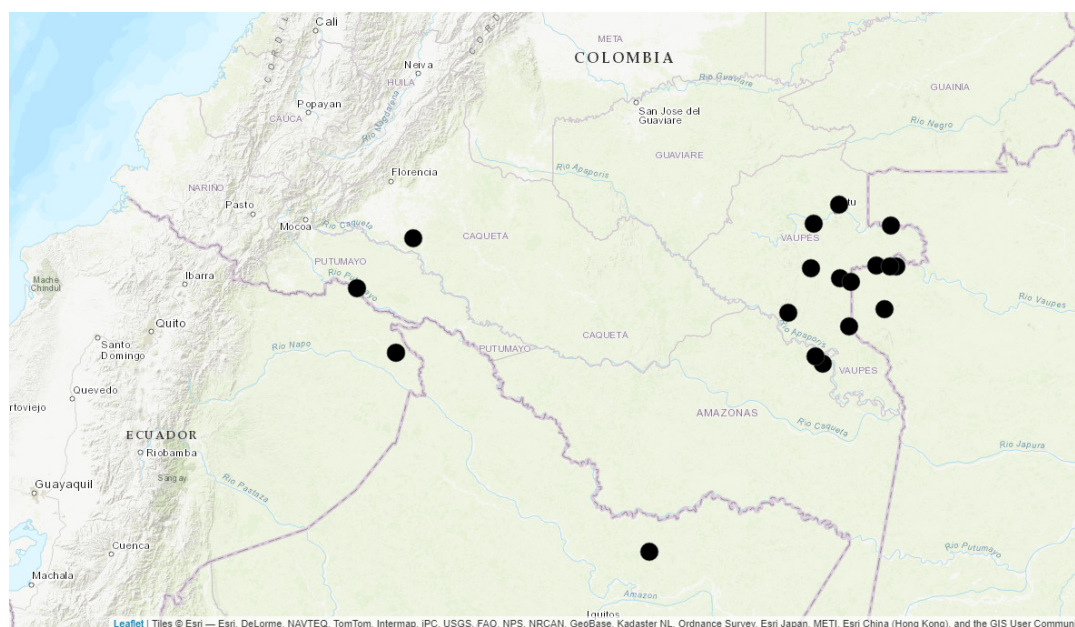


Figure 1: Map of living Tukanoan languages (Created with Glottospace (Norder 2022))

Internal classifications have been so far based on lexicostatistics (Waltz & Wheeler 1972) and phonological reconstructions (Chacon 2014), although more recent work has focused on computational approaches (Chacon & List 2015). The results have varied between a three branch classification (Waltz & Wheeler 1972; Barnes 1999) and a two branch classification (Mason 1950; Chacon 2014; Chacon & List 2015). The three-branch model proposes Eastern, Western, and Central branches. The Eastern branch is the largest branch with twelve languages, split further into three subgroups. The Western branch contains four languages over two subgroups, while the Central branch contains Kubeo and (in Barnes' (1999) classification) Tanimuka-Retuarã. More recent work favours the two-branch classification (see Figure 2), which groups the family into Eastern and Western Tukanoan. Eastern Tukanoan encompasses those languages which were classified as ET or Central Tukanoan under the three-branch model, while the WT branch encompasses the remaining five languages: Kueretu, Máihikì, Koreguaje, Siona, and Sekoya. In all

models, the position of Kubeo is the most disputed: Waltz and Wheeler (1972) argue for its independence from the ET branch based on lexical similarity with Siona (WT), however Chacon (2014) considers it as part of Western-ET, and Chacon and List (2015) consider the language to be under ET, but independent of any further subgrouping. This paper will follow the two-branch model, bearing in mind the discussion on the position of Kubeo between Chacon (2014) and Chacon and List (2015) where relevant.

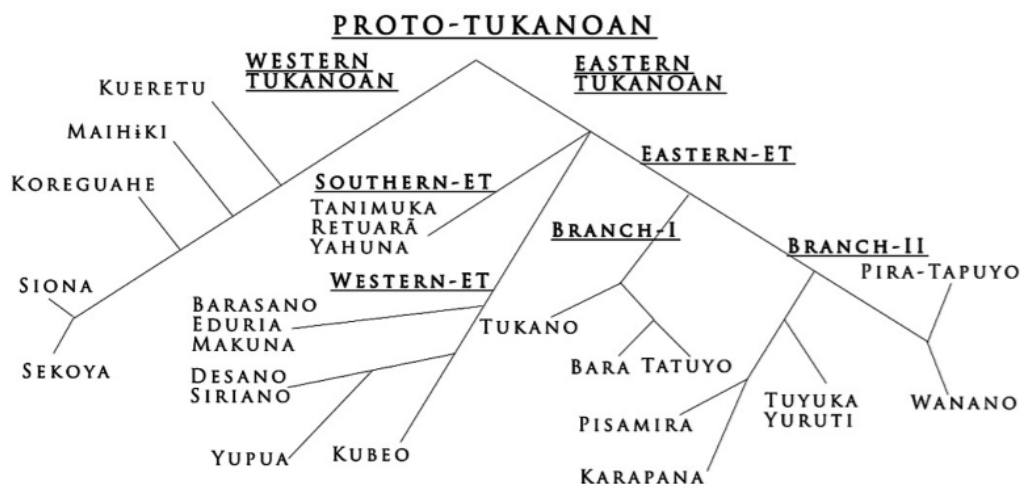


Figure 2: Proto Tukanoan as proposed by Chacon (2014, 282)

The history of the Tukanoan languages is one of language contact, although the history of this differs between the ET and WT languages. WT languages may have been relatively isolated from other Amazonian languages, being closer to the Andean foothills; ET languages, on the other hand, have a long history of contact with the Arawakan languages and smaller language groups in the area, such as Nadahup and Kakua-Nukak (Chacon 2013). Despite this, there is a high level of shared vocabulary across the whole family. Waltz and Wheeler (1972) show that Siona shares around 65-80% of its vocabulary with languages of the Eastern branch,² and within the ET branch, shared vocabulary is over 80%. Reconstructions have not attempted to date the Proto-Tukanoan family, however Chacon (2013) proposes a tentative time depth of 2000 – 2500 years based on the archaeological record and comparison with diversification within Indo-European.³

Table 1 gives the fourteen languages considered in this paper, with the relevant ISO code and the sources used.⁴ The names used below are those used throughout, although widely used alternatives are given in brackets. It was not possible to include every Tukanoan language, in part due to lack of an available description, although Pisamira (ET: Herrera Molina and Portilla Quintero 2016) was discounted due to the apparent lack of the relevant verb forms.

² They did not compare languages within the WT branch with each other.

³ Given this, the difficulties of comparing diversification between two language families and differing rates of change should be borne in mind.

⁴ All data is taken from these sources unless otherwise indicated.

Table 1: Tukanoan languages and sources

Eastern Tukanoan	
Tatuyo (tav)	Bostrom (1998)
Tukano (tuo)	Ramirez (1997)
Kotiria (Wanano) (gvc)	Stenzel (2013)
Wa'ikhana (Piratapuyo) (pir)	Stenzel (2018)
Karapana (cbc)	Metzger (1981)
Tuyuka (tue)	Barnes (1994)
(Tanimuka-)Retuarã (tnc)	Strom (1992) ⁵
Barasana-Eduria (ban)	Jones and Jones (1991)
Kubeo (cub)	Chacon (2012)
Desano (des)	Miller (1999)
Siriano (sri)	(Malone 1988) ⁶
Yurutí (yui)	(Malone 1988)
Western Tukanoan	
Máihikì (Orejón) (ore)	Farmer (2015)
Koreguaje (coe)	Cook and Criswell (1993)
Sekoya (sey)	Johnson and Levinsohn (1990)
Siona (snn)	Bruil (2014)

2.2. Negative verbs

Before moving forward with the data, it is first necessary to understand the terms which will be used here, and to give the context of what is already known about negative existential and privative constructions.

The forms under consideration have been referred to in this paper as a negative existential meaning ‘to not be’ and a privative form meaning ‘to not have’. Croft (1991) considers existential predication to refer to the presence or absence of something, although the form discussed here can also refer to the existence of an identity or attribute, or to possession, and there is overlap with the semantics of the privative form. It is not surprising that these semantic concepts overlap: the difference between negation of existence and of possession can be viewed as a difference in the totality of absence: while negative existentials typically refer to a total absence, negation of possession and location refer to an absence within a defined space. In practise, the overlap is even greater, partly because the expression of total non-existence in languages is rare cross-linguistically.⁷ Both negation of existence and of possession are often found as types of non-standard negation, defined by Van der Auwera and Krasnoukhova (2020: 91) as anything diverging from the “non-emphatic negation of a lexical main verb in a declarative main clause”.

Following Veselinova (2013), the negation of statements of existence is often achieved with a non-standard strategy, which share semantic and morphosyntactic similarities cross-linguistically. Earlier work by Croft (1991) proposes a three-stage Negative

⁵ This description is of the Retuarã variety of Tanimuka-Retuarã, and therefore will be referred to only as Retuarã.

⁶ Data taken from this paper refers only to the negative existential, and therefore Siriano and Yurutí are not included in the discussion of the privative verb.

⁷ Thank you to Chris Lucas for highlighting this point.

Existential Cycle, in which (1) negative existential predication is formed with the standard verbal negator, (2) it becomes distinct from and coexists with standard verbal negation, and then (3) comes to be used in place of standard verbal negation and is reanalysed as a standard negative form, being bleached of its existential meaning. This highlights the relative instability of negative constructions, also evidenced in the more widely known Jespersen Cycle (Van der Auwera 2009), in which double negation develops through the emphasis of standard negation.

Also within the semantic field of absence is privation, which relates to being without something. As indicated above, this has a conceptual overlap with existential negation, and although it is included in the discussion of negative existentials by Veselinova (2013), privation has not been widely studied, so many questions remain regarding its realisation and distribution. However, it has been discussed in relation to individual languages and language families, such as the privative form in the Arawakan language family, which neighbours the Tukanoan family in South America. Michael (2014) proposes that a Proto-Arawakan privative has developed into a standard negator in some modern Arawakan languages, leading Van der Auwera and Krasnoukhova (2020) to propose a Privative Cycle as a subtype of the Negative Existential Cycle. Although this hypothesis has not yet been fully explored, a Privative Cycle would see privatives following the same path as the Negative Existential Cycle to become standard verbal negators.

By contextualising both Tukanoan forms in the light of the wider discussion, it is hoped that the data shown here will shed further light on existential and privative negation, both conceptually and formally, and on their patterns of cyclic regeneration.

3. Negative verbs in the Tukanoan languages

This section will present the verbs under discussion and their proposed reconstructions, presenting first the ET negative existential verbs (3.1.), before discussing the ET privative and the WT negative verbs in 3.2.

3.1. Negative existentials in Eastern Tukanoan

Throughout the ET languages, a negative verb exists with a meaning relating to the negation of existence (1), presence (2), identity (3), and, in some languages, of possession (4). This section gives an overview of the form in different languages and will show that it can be reconstructed back to Proto ET. Whether or not all the ET negative existentials can be considered cognate and conform to this same history will be discussed in 3.1.1.⁸

⁸ Abbreviations: ~ = nasal word, 1,2,3 = first, second, third person, 1p = first person plural exclusive, ADI = additive, ASS = assertive, C' = laryngealized consonant, CLS = classifier, DECL = declarative, DED = deductive, DES = destination, DVBL = deverbalizer, EV = evidential, EXIS = existential, FEM = feminine, INAN = inanimate, MASC = masculine, N = neuter (3rd person), NEG = negation, NOM = nominative, nom = nominalizer, NON.1 = non-first person, P = patient, PST = past, p.cad = recent past, PERF = perfective aspect, PL = plural, PST = past tense, PP.NF = non-finalized noun, present participle, PRS = present, REF = referential, SG = singular, SUS = noun, TERM = human, TRS = translation, VBLZ = verbaliser, VIS = visual.

- (1) **Kotiria** (Stenzel 2013: 265)⁹
 (in response to the question: Weren't there any (edible) ants in your daughter's village?)
 ~de ~badia-re
 NEG not.exist-VIS.PERF.NON.1
 'No, there weren't.'
- (2) **Tuyuka** (Barnes 1994: 337)
 Yaa-ré mǎní-ã
 eat-NOM:NAN not:be-EV
 'There isn't any food.'
- (3) **Retuarã** (Strom 1992: 148)¹⁰
 herõʔõ paru-bã-rĩ-a iʔsia
 no plantain-not.be-DVBL-N that
 'No, that's not a plantain.'
- (4) **Retuarã** (Strom 1992: 148)
 pita-bã-rĩ-rã-te yiha-ĩã-rape
 hand-not.be-DVBL-PL-TERM 1p-see-PST
 'We saw people without hands.'

As seen in examples (1) - (4), the formal appearance of this verb is not the same in every language, however it occurs in some form in Tatuyo (*mani*), Tukano (*mãri*), Kotiria (*bãdĩã*), Wa'ikhana (*bãdĩẽdã*), Karapana (*mani*), Tuyuka (*mãni*), Barasana-Eduria (*bãdi*), and Desano (*bãrĩ*), Retuarã (*bã*), Kubeo (*ãbẽ*), Siriano (*bãdĩ*), and Yurutí (*bãdĩ*). Putting Retuarã and Kubeo aside for a moment, the forms are remarkably similar, consisting of an initial bilabial plosive or nasal consonant and a medial /n, r, d/ segment. This variation is largely due to differing orthographic conventions in different descriptions: /d/ and /r/ are often intervocalically allophonic in ET (Chacon 2014), and the choice between <m, b> and <n, d> reflects the representation of nasalisation of the consonants. Across most of the family, [m] and [n] are allophones of /b/ and /d/, as voiced stops are nasalised in nasal environments, therefore while some authors write these as <b, d> and some as <m, n>, all are pronounced as [m, n] (Chacon 2014). From this, it is possible to identify an underlying form of /bãdĩ/ in Tatuyo, Tukano, Karapana, Tuyuka, Barasana-Eduria, Desano, Siriano, and Yurutí. The forms in Kotiria and Wa'ikhana additionally show the standard verbal negation suffixes *-a* and *-eda*, but otherwise have the same form and should therefore also be considered as cognate.¹¹

The question remains of whether this is a morphologically complex form and, if so, how it developed. Standard negation in the languages in question is achieved through post-

⁹ All examples have been presented as they are in the source material, except where translations are required.

¹⁰ In Retuarã, the form most commonly occurs with the deverbaliser *rĩ* and an incorporated noun, as in these examples.

¹¹ This additional negation will not be discussed further in this paper, but Stenzel (2018) notes it is most likely due to emphasis, showing evidence of Jespersen's Cycle.

verbal negators of the shape *-keti* (Tatuyo), *-ti* (Tukano), *-be* (Barasana-Eduria, Retuarã, Kubeo), and *-biri* (Desano), and although many of these forms could be argued through sound change to be the basis of the whole or a component part of the *bãdĩ* form, none of these would be supported by the phonological reconstruction proposed by Chacon (2014). However, the syllable *-dĩ* does have an identifiable source still found in several of the languages. As shown in Table 2, below, *-dĩ* occurs in several of the languages as the copula, with the meaning ‘to be’.

Table 2: Copulas and Negative Existentials in Eastern Tukanoan languages

Language	(Present/Past) ¹² Copula	‘to not be’
Tatuyo	<i>ani</i>	<i>bãdĩ</i>
Tukano	<i>dĩ</i>	<i>bãdĩ</i>
Kotiria	<i>hi</i>	<i>bãdĩã</i>
Wa’ikhana	<i>hi</i>	<i>bãdĩẽdã</i>
Karapana	<i>ãnĩ</i>	<i>bãdĩ</i>
Tuyuka	<i>dĩĩ</i>	<i>bãdĩ</i>
Retuarã	<i>ĩbẽ</i>	<i>bã</i>
Barasana-Eduria	<i>dĩ</i>	<i>bãdĩ</i>
Kubeo	<i>-ba/-be</i>	<i>ãbẽ</i>
Desano	<i>árĩ</i>	<i>bãdĩ</i>
Siriano	<i>ã²rĩ</i>	<i>bãdĩ</i>
Yurutí	<i>dĩ</i>	<i>bãdĩ</i>

Although not all forms are identical, the forms *ani*, *dĩ(ĩ)*, and *ã²rĩ* again show variation due to representations of nasality and allophony and are all differing representations of the form *(ã)dĩ(ĩ)*. Divergence from this form is seen in Kotiria, Wa’ikhana, Retuarã, and Kubeo, and these will be dealt with after discussion of the *dĩ* form, in 3.1.1.

If the *-dĩ* of the negative existential form is assumed to be the same as that of the copula, it can also be assumed that the initial syllable, *bã-*, is what gives the negative meaning to the verb: NEG+to.be. Although *bã-* is not found as a preverbal negator in ET, it has been noted that a morpheme of the shape *ma* is found throughout the region with a negative meaning: beyond Tukanoan it is noted in the Arawakan and Tupían languages and in Yagua (Payne 1990; Campbell 2012). It is not necessary to assume that this has spread through contact: Campbell (2012) notes that it is found as a negator worldwide, likely due to its unmarked yet highly salient consonant. Furthermore, Chacon (2014) proposes either **p*’ or **m* as the reflexes of ET root-initial *b-*, making **ma* a likely candidate for the source of this morpheme (although notably Chacon (2014) claims the *m > b* merger occurred before Proto ET). Given that *bãdĩ* is found throughout the ET languages, but not in the WT languages, it is at this point possible to propose that **bãdĩ* is a development of Proto ET, and that Proto ET had a preverbal negator of the shape **bã-*, likely developing out of an earlier PT negative particle, **ma*. This is supported by evidence from WT, where the verbal negator is *-ma* or a similar form.¹³ Whether or not **bã* is related to the privative

¹² In Tuyuka, Wa’ikhana, Tukano, Kotiria, Karapana, Barasano-Eduria, Desano, and Siriano, the same or a similar form is used for both the past and present copula. The past tense form of the copula is not known for Tatuyo, Retuarã, or Kubeo. In Yurutí, the form given in the table is the past tense copula. In Kubeo, the forms are given for both the general copula (*-ba*) and the 3rd person singular copula (*-be*) respectively.

¹³ *-ma* in Sekoya and Máihiki, *-mane* in Koreguaje and *-a* in Siona.

verb will be considered in 3.2. However, before moving on, the divergent forms in Wa'ikhana, Kotiria, Retuarã, and Kubeo will be considered.

3.1.1. Divergent forms

Wa'ikhana, Kotiria, Retuarã, and Kubeo differ from the story proposed above in two ways. Wa'ikhana and Kotiria show the same shape of negative existential (*bãdĩẽdã*, *bãdĩã*, respectively) but differ in the relationship with the copula (*hi*, in both cases), while Retuarã and Kubeo show both a differently shaped copula (*ĩbẽ*, *-ba/-be*, respectively) and a differently shaped negative existential (*bã*, *ãbẽ*, respectively). Turning firstly to the different form of the copula in Wa'ikhana and Kotiria, two closely related languages, this has already been discussed by Stenzel (2018), who considers the *hi* form to be innovative, likely a borrowing from a nearby language. She notes that *dĩ* is seen in both languages, but as a progressive auxiliary copula, where other ET languages use a different root. By this account, *hi* came to be used in Wa'ikhana and Kotiria only after these languages split from the other ET languages, and prior to this, the *dĩ* form was used, as elsewhere in ET, as a copula with existential meanings. Therefore, there is no reason to propose a different account for the development of the negative existential in these two languages: it was likely formed prior to the split of the Kotiria-Wa'ikhana subbranch, prior to the suppletion of the copula.

Turning secondly to Retuarã, the form here differs from the other ET negative existential verbs both in the shape of the negative verb and in the relationship of the verb with the copula. The negative existential has the shape *bã*, so it is likely that this is a phonological reduction of the same *bãdĩ* verb seen elsewhere. Given this, the relationship with the copula is not of great importance: it is possible that, as in Kotiria and Wa'ikhana, it is a suppletive form.

Finally, however, the negative verb in Kubeo cannot be so easily explained (and a conclusion will not be reached here). A possible explanation is that *ãbẽ* followed the same path of development but with the third person copula, *-be*, followed by the loss of the initial *b-*. However, the verbal negator in Kubeo is *-be*, and it is also possible that this forms the second syllable of the negative existential. That the Kubeo negative existential cannot be proved to be related would support the most recent internal reconstruction of Proto ET, which puts Kubeo as diverging earlier than the other subgroups (Chacon & List 2015). This also means that the development of the *bãdĩ* verb cannot be precisely dated to Proto ET but may have developed after the split of Kubeo.

3.2. Privative verbs

The following section will address the ET privative form and the WT negative verb together, for reasons which will become clear. Firstly, the meaning and spread of both forms will be considered separately (3.2.1., 3.2.2.), and then the possible path of development will be traced (3.2.3.).

3.2.1. Privative verbs in Eastern Tukanoan

As was seen earlier, the ET negative existential often encompasses the negation of both being and having. However, at least three ET languages have a second negative verb which distinguishes not being from not having, as shown in (5) - (7).

(5) **Tuyuka** (Barnes 1994: 337)

Nĩyéro **mõõ-ã**
 money not:have-EV
 ‘I do not have any money.’

(6) **Desano** (Miller 1999: 136)

bõã **bõo-bã**
 salt not:have-3PL
 ‘They don’t have any salt.’

(7) **Tukano** (Ramirez 1997: 139)

dohasehére marî maatá moopá
 dohá-sehé-de bādî bää-ta **bõó-pã**
 assoprar-nom.INAN.PL-REF nós logo não.ter-p.cad.DED.outras.pessoas
 ‘desde o principio, nós não tivemos assopros (maléficos)’
 (TRS. ‘From the beginning, we didn’t have (evil) blows.’)¹⁴

Again, the variation in form can be considered as a difference in the representation of nasality in the surface form: the underlying form is /bõõ/. Although this form is not as widespread as the negative existential form, it is worth noting that Tuyuka, Desano, and Tukano are in three separate clades within ET following Chacon (2014) and in two separate clades (Tuyuka and Tukano both being in East-ET) following Chacon and List (2015). Although a contact situation cannot be discounted, this paper will discuss the possibility of a diachronic solution.

3.2.2. Negative verbs in Western Tukanoan

Turning to WT, a number of negative verb forms are found; in particular Sekoya and Siona both show multiple negative verbs. However only one form, with the shape *peo* or *beo* and with meanings covering both existence and possession, is pervasive throughout WT and will be discussed here.

In Máihiki, the form is glossed only as ‘not exist’, which is supported by the examples given.

(8) **Máihiki** (Farmer 2015: 189)

túkùtá béógi
 tükù-tà **béó-gi**
 star-also not.exist-3SG.MASC.PAST.DECL
 ‘There weren’t any stars either.’

However, in Koreguaje, the form is glossed both as ‘to not be’ and ‘to not have’.

¹⁴ It is not clear from the source material, however this likely refers to blow darts.

(9) **Koreguaje** (Cook & Criswell 1993: 31)

ǰiǰi haʔkhi ʔthama **peo**-siʔ-k^hi-aʔ-mi
 yo padre tama no.ser-PER-SUS.MASC.SG-VBLZ-MASC.SG
 ‘Mi padre no era tama.’ (TRS. ‘My father was not Tama.’)

(10) **Koreguaje** (Cook & Criswell 1993: 51)

waʔthi-heʔe **peo**-mi ǰiǰi
 cuchillo-ADI no.tener-MASC.SG yo
 ‘Yo no tengo cuchillo alguno.’ (TRS. ‘I don’t have a knife (at all).’)

In Sekoya, *peo* means ‘to not have’ or ‘to be without’, suggesting that its semantic meaning is closer to possession than existence or identity.

(11) **Sekoya** (Johnson & Levinsohn 1990: 64)

Ai-ñe **peo**-ye oca-na sa-jiʔi
 comer-PP.NF ser.NEG-PP.NF río.abajo-DES ir-PST.3SG.MASC
 ‘Como no había nada que comer, fue río abajo.’
 (TRS. ‘Since there was nothing to eat, he went down the river.’)

In Siona, the form *peo* is glossed as a negative existential, although (13) suggests that a meaning relating to possession may also be possible.

(12) **Siona** (Bruil 2014: 244)

Yë’ë beoconá Jairo toto neǰëyobi
 Jiʔi **beo**-ko-na, Jairo tohto ne-hijo-bi
 1SG NEG.EXIS-SG.FEM.PRS-DS Jairo board do-break-3SG.MASC.PST.ASS
 ‘While I wasn’t there, Jairo broke the board.’

(13) **Siona** (Bruil 2014: 94)

peo.roʔ.ro.wi
 beo-do’do-wi
 NEG.EXIS-basket-CLS:CONTAIN
 ‘containing nothing’

Given these examples, it is possible to summarise the distribution of meaning in WT as in Table 3, below.

Table 3: Negative verb meanings in Western Tukanoan

	‘to not be/have’	existence/identity	possession
Máihiki	<i>béó</i>	✓	
Koreguaje	<i>peo</i>	✓	✓
Sekoya	<i>peo</i>		✓
Siona	<i>beo</i>	✓	(✓)

This demonstrates at least a partial overlap in the semantics of the WT and the ET verbs. Formally, the verbs also demonstrate a close relationship. Following Chacon (2014), where WT languages (excluding Máihǫ̀ki) now have an initial *p* (or *p'* in Siona), ET languages and Máihǫ̀ki have *b*, from a reflex of **p'*, a laryngeal consonant.¹⁵ The question of why the verb is nasalized in the ET languages but not in the WT languages can also be easily answered by the regular phonological development of ET and WT: nasalization is a phonemic feature in WT, but a suprasegmental feature in ET. Following Chacon (2014), nasalization in PT was a feature of individual segments, which is maintained in WT, where nasal and oral vowels (and stops) contrast. However, in ET, nasalization is a feature of the morpheme, and nasal and voiced stops have (partially) merged. This is seen in the ET privative; as the initial consonant became voiced, the syllable has also become nasalized (most likely an independent development), a process which has not occurred in the WT privative.¹⁶

Having discussed the semantic and formal relationship between the ET privative and the WT negative verb, section 3.2.3. will focus on the development of these forms, aiming to answer the question of whether this form can be reconstructed to PT.

3.2.3. Diachronic development

An analysis of the privative verb in Tukano proposed by Ramirez (1997: 169) is that the form is constructed of a negative morpheme *bǎá* and the causative suffix *-o* (a suffix which is widespread throughout both ET and WT), with the application of regular regressive assimilation causing *-a-* to shift to *-o-*. Under this analysis, it would be reasonable to assume that the negative morpheme *bǎá* is the same as that in *bǎdǐ*, undoing the analysis made in the previous sections. However, this would require not only a shift from *-a-* to *-o-* in ET, but from *-a-* to *-e-* in WT, suggesting two independent vowel shifts in each branch. Instead, it will be considered here that the negative reflex in *peo* and *bǎǎ* in PT was not *bǎá*, but **p'e*.

If the root form in PT is **p'e*, the vowel need only change once, from *e > o* in ET, and the consonant change from *p'* to *p/b* in WT and *b* in ET is supported by Chacon (2014). There is no reason to assume that the Proto ET form **ba-* is related to this form: although the change of *p'* to *b* is supported, this would require an unmotivated vowel change, and there is as yet no reason to doubt the existence of the already discussed form **ma*. This indicates that the reflex of *peo/bǎǎ* is distinct from the reflex of *bǎdǐ* and that there are two negative roots: **p'e*, present in PT, and **ba-*, present in Proto ET, from the earlier PT form **ma*.

Evidence for **p'e* as a negator in PT is also seen in ET languages, where an element of the shape *be* is found in a number of negative constructions: in Barasano-Eduria, Tanimuka-Retuarǎ, and Kubeo, the verbal negator is a morpheme *-be*, while in Karapana it is the reduced form *-e*. In Tuyuka, *-be* negates nouns (Malone & Barnes 2000: 443). In Desano too, a number of negative forms contain this element: *sǎbǎ* is the future negative

¹⁵ Chacon (2014) gives a preglottalized stop as the Máihǫ̀ki form, however, Farmer (2015) does not include preglottalization in her consonant inventory.

¹⁶ See Chacon (2014) and Barnes (1999) for more discussion of the development of nasalization.

suffix, *bēhē* is a negative postposition used with nominal forms and subordinated clauses, and *bea* is an allomorph of the standard verbal negator.

This proposal differs from that of Ramirez (1997): his analysis is based on a regular regressive assimilation process which specifically targets /a/, while this hypothesis would suggest a process of regressive assimilation from /e/ to /o/, and it is unclear whether this would have applied as a regular process. No matter how this process applied, it is possible to reconstruct a form of **p'eo* to Proto Tukanoan, and in doing so to reconstruct a negative form **p'e*. Another aspect of his proposal is that the final *-o* is the causative suffix, and at this point there is no reason to doubt that. The causative suffix *-o* is found in most (although not all) ET and WT languages, making it an ideal candidate for the suffix in the privative verb. However, the question of how the addition of the causative suffix would have led to a privative meaning would require analysis of how the causative suffix is used in the Tukanoan family, which will be left for another time.

It is possible to consider the meaning of **p'eo* in relation to its form today. The semantics of the negative verb in WT and ET differ in breadth: in ET languages, it is restricted to negating possession, while in the WT languages, it negates both possession and existence, something achieved by a different verb in many ET languages. The question then arises of whether a widening or a narrowing of the semantic meaning from the proto form is more likely; Chacon (2013) views WT as more conservative than ET, as has been seen in the phonological changes described in this paper. If this is also the case in terms of semantics, it would support a narrowing of the semantics within ET, presumably under the influence of the later development of the negative existential *bãdĩ*.

4. Summary and discussion

This paper began with a discussion of the Negative Existential Cycle (Croft 1991), in which negative existential forms shift to being used as standard negators, bleached of their existential meaning. This process is visualised in three stages, of which only the first stage can be seen in the Tukanoan verb *bãdĩ*: this was formed of a preverbal negative element and the copula, and has shifted to be semantically opaque, as the negative element **bã-* is no longer found with this meaning. However, there is no evidence that this form has moved beyond the initial stages of the Cycle into cyclic regeneration. Veselinova (2013) argues that negative existentials commonly use a non-standard negation construction, as is seen in the Tukanoan languages today. Diachronically, however, the Negative Existential Cycle demonstrates how a non-standard construction can develop from a standard one, as is the case here. Therefore, despite not showing evidence of the entire Cycle, the ET negative existential highlights how negative existential constructions come to exist as non-standard constructions.

The question was also raised of whether a Privative Cycle existed (Van der Auwera & Krasnoukhova 2020), with the same process as the Negative Existential Cycle. The evidence from Tukanoan suggests that the privative form has developed along a similar path as the negative existential: it formed with a negative particle which is no longer recognised within the synchronic form of the verb. However, a Privative Cycle would also suggest a stage in which this comes to again be used as a standard negator, which cannot be shown for the Tukanoan languages. The similar developmental paths again

highlight the conceptual similarity between privative and negative existential forms, which does add further weight to the possibility of a Privative Cycle.

5. Conclusions

This paper has considered the histories of two negative verbs found throughout the Tukanoan language family: *bãdĩ* ‘to not be’ and *peo/bõõ* ‘to not have’. In doing so, I have proposed a reconstruction of **bã-dĩ* ‘NEG-to.be’ to Proto Eastern Tukanoan, most likely following the divergence of Kubeo, and a reconstruction of **p’e-o* ‘NEG-CAUSE’ to Proto Tukanoan, predating the negative existential. These depend on two negative forms: **p’e* (Proto Tukanoan) and **bã* (Proto ET), which cannot be shown to be related. These have been considered in light of both the Negative Existential and the Privative Cycles, although as yet the forms can only be shown to exist in the earliest stages of these cycles.

Given the current lack of research on privative and, to a lesser extent, negative existential forms, this paper has adds to what little is known in these areas and highlights that there is still a great deal to be gained from the study of non-standard negation. Furthermore, the Tukanoan languages are host to a number of negative verbs, including some not discussed here, which are worthy of further investigation.

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