Differential Object Marking in Tukano

Fábio Bonfim Duarte[1]
Braulio Brandão de Oliveira Lopes[2]

ABSTRACT

Abstract: The main purpose of this paper is to demonstrate that the Tukano language exhibits differential object marking, hereafter DOM. It also assumes that the occurrence of the overt morphological Case marking {-re} has the role of indicating whether the internal argument is definite or not, thereby being responsible for activating DOM in Tukano. This hypothesis is based on the fact that this Case marker only appears in definite objects, never in indefinite objects. Furthermore, based on the Dependent Case Theory developed by Baker (2015), this paper proposes the hypothesis that {-re} is the morphological instantiation of the low dependent Case that is assigned to internal arguments in the CP-TP-*v*P domains. We also propose that the syntactic distribution of this suffix can be readily explained by the application of the dependent Case assignment rule, as is posited by Baker (2015).

Keywords: Tukano; Differential Object Marking; Definiteness; Dependent Case.

RESUMO

Resumo: O objetivo deste artigo é demonstrar que a língua Tukano exibe marcação diferencial de objeto, doravante DOM. Assume-se ainda que a ocorrência da marcação morfológica com {-re} serve como dispositivo gramatical para determinarmos se o argumento interno é definido ou não, sendo, portanto, responsável pela ativação de DOM em Tukano. Esta hipótese se fundamenta no fato de que este morfema figura sistematicamente em objetos definidos, mas não em objetos indefinidos. Adicionalmente, baseando-se na teoria de Caso Dependente, tal como desenvolvida por Baker (2015), propomos a hipótese de que {-re} é a instanciação morfológica do

1 We would like to thank two anonymous reviewers of Revista Letras, who generously offered their constructive critiques which contributed greatly to improving this article. An earlier version of this paper was presented at Workshop of Theory of Grammar, which held at the Federal University of Roraima, in July 1-5, 2019. The research represented here has been funded by CAPES-Brazil (grant # 88881.120815/2016-01); by FAPEMIG (grant #19901); by CNPq (grants # 424236/2018-4 and #306059/2018-5) and by the Pró-Reitoria de Pesquisa da Universidade Federal de Minas Gerais (PRPq/UFMG). Email address: fbonfim@terra.com.br; brauliolopes@ymail.com. Home pages: www.letras.ufmg.br/fbonfim; www.letras.ufmg.br/laliafro. We take full responsibility for all possible errors in the content of this paper.

2 Master student at the Graduate Program at Language Faculty/UFMG. This study was financed in part by the Coordenação de Aperfeiçoamento de Pessoal de Nível Superior – Brasil (CAPES) – Finance Code 001. Research grant number #88887.354650/2019-00.

Caso dependente baixo, atribuído a argumentos internos no domínio de CP-TP-*v*P. Postulamos ainda que a distribuição sintática desse morfema pode ser prontamente explicada pela aplicação da regra de atribuição de caso dependente tal como formulada por Baker (2015).

Palavras-chave: Tukano; Marcação diferencial de Objeto; Definitude; Caso Dependente.

Introduction

The purpose of this article is to investigate the phenomenon of differential object marking (DOM) in the Tukano language. In general, DOM is connected to the scale of definiteness in transitive sentences, particularly in transitive clauses when the theme object is marked with the case suffix {-re}. In such context, the referent of the object is interpreted as definite. However, if the referent is not definite, but indefinite, the object remains unmarked. Compare the examples below.

(1) *Ɨ'tâ nuhuro* *kero-ré* *pihî-pi'*
beetle firefly-ACC call-REM.PAST.REP.3MSG
'The beetle called the firefly.'

(2) *Naâ* *akó* *sĩ'ri-má*
3PL water drink-PRES.VIS.3PL
'They drink water.'

(3) *K̃ĩ̂* *wa'î-re* *ba'â-mi*
3msg fish-acc eat-pres.vis.3msg
'He eats the fish'

(4) *Naâ* *paharã́* *wa'î* *boká-parã*
3pl many fish find-rem.past.rep.3pl
'They found many fish'

(5) *Wi'i-ré* *weé-'*
house-acc build-pres.vis.1
'(I) build the house.'

(6) *Ni'kâ* *wi'i* *da'rê-gɨ'* *wee-mí*
one house make-ss.msg do-pres.vis.3msg
'(he) is making a house'

As the reader may notice, nouns can be marked by the definiteness Case suffix {-re} in the examples above, regardless of it being countable or uncountable, thereby suggesting that the occurrence of this particle is not constrained by the semantic reference of the noun that heads the DP. The data above also show that the presence of Case morpheme {-re} may be viewed as one of the strategies that Tukano uses to encode the definiteness features in the noun phrases.

Another context where the Case suffix {-re} can also appear is in double object construction, hereafter DOC. In such syntactic context, only the recipient is marked, whereas the theme remains unmarked, as follows:

(7) *Numiô* *sĩ'i-ré* *ɨmîtihisé* *wa're-ámo*
woman dem.an.msg-acc perfume apply-rec.past.vis.3fsg
'The woman applied perfume on that one.'

(8) *Yɨ'î* *kĩ̂-re* *su'tí* *o'ô-apɨ*
1sg 3sg-acc clothes give-rec.past.vis.1
'I gave him clothes.'

Based on the data presented above, the reader might get puzzled for why it is the recipient that is marked with the Case suffix {-re} and not the theme. A possible solution to this problem might be achieved if one pursues a syntactic explanation in something related to what Baker (2015) calls dependent Case[3]. In order to achieve a logical answer to this question, we will pursue the hypothesis that the Case suffix {-re} is a low dependent Case marker (accusative) that is activated whenever the object, regardless

3 In this paper, abstract Case will be spelled out with capital letter, while morphological case will remain with lowercase letter.

Revista Letras, Curitiba, ufpr, n. 101, pp. 16-44, jan./jun. 2020
issn 2236-0999
(versão eletrônica)

of whether it corresponds to the theme or the goal argument, is in the same Spell Out domain as the subject. This analysis entails that the morpheme {-re} corresponds to an abstract Case that is assigned to the lowest D/NP within the C/TP-*v*P domain. In order to develop this analysis, we will be adopting Baker's (2015) Dependent Case theory, according to which some nominals (DPs or NPs) can be assigned a structural dependent Case, depending (i) on the Spell-Out domain they are located and (ii) on the structural (i.e. c-command) relationship that they establish with other nominals that are also positioned in the CP-TP-*v*P domain.

The present article is organized in five sections. Section 1 is devoted to a brief overview on the ethnological aspects of the Tukano people. It also addresses the issues regarding the linguistic family to which Tukano belongs to. Section 2 outlines the theoretical assumptions on which the analysis will be based. Section 3 presents the relevant data on DOM, showing how the definiteness scale is crucial to the phenomenon. Section 4 postulates the hypothesis that {-re} marks the low dependent case (accusative) in the CP-TP domain, having as reference Baker's (2015) theoretical proposal. Section 5 concludes the article.

1. People, Language and Linguistic Family

The languages of the Tukano linguistic family are subdivided into three main branches. The languages belonging to the eastern and the central branch are spoken mainly in the region of the Uaupés river basin, situated on the border between Brazil and Colombia, whereas the languages of the western branch are spoken along the Putamayo, Caquetá and Napo rivers, located in southwestern Colombia and near the borders between Colombia, Ecuador and Peru. In the map 1 below, the marks in red indicate the areas where Tukano languages are spoken in Brazil (ISA, 2019), whereas in the map 2 the areas marked in green point out the places where Tukano languages are spoken in Colombia and in its borders with Ecuador and Peru (Barnes, 1999).

Map 1 - Tukano languages in Brazil

Map 2 - Tukano languages in Colombia, Ecuador and Peru (western branch in darker green, central and eastern branch in lighter green, the central languages marked with the lightest color)

Revista Letras,
Curitiba, UFPR,
n. 101, pp. 16-44,
jan./jun. 2020
ISSN 2236-0999
(versão eletrônica)

The estimates about the number of languages on this family vary between 7 (Ramirez, 1997) and 16 (Barnes, 1999), depending on the criteria for classification. However, one factor remains constant in all classifications: the eastern branch of the family is by far the largest one. This branch includes the language that gave its name to the family (also called Tukano proper, Daseá or Yepâ-Masa), which is the language that this article will focus on.

According to statistical findings, the Tukano ethnic group has a total population of 8167 people, 2016 of which inhabit Colombian territory (DANE, 2005) and 6151 live in Brazilian territory (IBGE, 2010). However, the estimates on how many people speak the Tukano language are as high as 20,000 people (ISA, 2019). The reason for that lies in the fact that Tukano is one of the *lingua francas* of the region (Ainkhenvald, 1999), and therefore has a large number of people who speak it as a second language. Additionally, the ethnic groups belonging to the Tukano family, as well as many other neighboring groups, practice linguistic exogamy (Sorensen, 1969). Consequently, a system of marriage exchange has been established among the indigenous groups of the upper Rio Negro region. As a side effect of this cultural tradition, multilingualism remains as one of the defining practice of this region (Fleming, 2016). Naturally, as it is common to all multilingual communities, a certain instability exists in the system, namely a tendency to have the languages of higher prestige gradually supplanting the others (Wölck, 2008). Because of this, many individuals from other ethnic groups, such as Miriti-Tapuyo, Arapaço, Tariano (Ramirez, 1997), do not speak their ethnic languages any longer and tend to adopt Tukano as their first language.

2. Theoretical Assumptions

The syntactic phenomenon investigated in this article has been called differential object marking, hereafter DOM, by authors such as Bossong (1985) and Aissen (2003). Essentially, it is observed that languages that have explicit morphological Case markings to indicate that a certain NP is the direct object do not necessarily need to overtly mark *every single* object. In addition to encoding the syntactic position the argument may occupy, Case marking can also be used to highlight semantic and pragmatic features, such as the definiteness and the animacy of the core arguments in the transitive sentences. Aissen (2003:2), proposes that "[t]he higher in prominence a direct object, the more likely it is to be overtly case-marked". Within the typological literature (Givón 1976; Comrie 1989; Croft 1988; 1990), it has been assumed that the relevant semantic features that trigger DOM are the ones that occupy a higher position in the hierarchies below.

(9) Definiteness Hierarchy:
definite > specific > indefinite > non-specific

(10) Animacy Hierarchy:
human > animate > inanimate

Languages that overtly case-mark objects in order to encode definiteness feature include Hebrew (Minussi, 2008), Hindi (Butt and King, 2004) and Kotiria (Stenzel, 2008). Compare the examples below:

Hebrew

(11a) *Dan kara **et** **ha**-sefer*
Dan read ACC DEF-book
'Dan reads the book.'

(11b) *Dan kara sefer*
Dan read book
'Dan reads a book.'

Hindi

(12a) *nadya=ne gar-i cala-yi hɛ*
Nadya.F.SG=ERG car-F.SG.NOM drive-PERF.F.SG be.PRES.3.SG
'Nadya has driven a car.'
(Butt; King, 2004, p. 7-8)

(12b) *nadya=ne gar-i=ko cala-ya hɛ*
Nadya.F.SG=ERG car-F.SG=ACC drive-PERF.F.SG be.PRES.3.SG
'Nadya has driven the car.'
(Butt; King, 2004, p. 7-8)

Kotiria

(13a) *hi-piti-ro chʉa na-ta-ra*
COP-COLL-SG food get-come-VIS.IMPERF.2/3
'Everyone brings food'
(Stenzel, 2008:160)

(13b) *ti-na na-sã'a chʉa-re yoa-ra*
ANPH-PL get-MOV.inside food-OBJ do/make-VIS.IMPERF.2/3
'They take the food inside and eat (it)'
(Stenzel, 2008:161)

Revista Letras,
Curitiba, UFPR,
n. 101, pp. 16-44,
jan./jun. 2020
ISSN 2236-0999
(versão eletrônica)

The Kotira data above is especially relevant to our analysis, given the fact that this language and Tukano belong to the same linguistic family. According to Ramirez (1997), Kotira is quite similar to Tukano, sharing with it a lexical similarity of 82%.

To explain DOM in the Tukano language, we will be assuming Baker's (2015) theory of Dependent Case, in order to explain the syntactic distribution of the Case marker {-re}. The dependent Case theory was originally proposed by Marantz (1991) as "an alternative procedure to assign morphological case to NPs that does not depend on agreement with a functional head" (Baker, 2015:78). Such procedure does not dispense with the standard Chomskyan view (Chomsky, 2000; 2001), according to which structural case is assigned to an NP by a nearby head category, when a syntactic agreement relation holds between a head F^{o} and that NP. In line with this view, the choice of either specific option must be treated as a parametric alternative procedure that some languages may use. In this sense, Baker (2015:79) proposes that the general rule of dependent Case assignment can be stated as follows:

(14) If XP bears c-command relationship Y to ZP in local domain WP, then assign case V to XP.[4]

Given the fact that the rule in (14) gives rise to many parametric possibilities and that the Case morpheme {-re} attaches itself only to one D/NP per clause, one way to constrain it is to propose that the dependent abstract Case is assigned to an object in the following way:

(15) If D/NP1 bears c-command relationship Y to D/NP2 in local domain TP, then assign case V to D/NP1.

Given the rules above, Baker argues that the concept of c-command relationship Y yields, at least, four logical syntactic possibilities, as follows:

(16) a. If D/NP1 c-commands D/NP2 in the same TP domain, then assign ERGATIVE case to D/NP1.

b. If D/NP1 is c-commanded by D/NP2 in the same TP domain, then assign ACCUSATIVE case to D/NP1.

c. If there is no other D/NP, D/NP2, in the same TP domain as D/NP1 such that D/NP2 c-commands D/NP1, assign (marked) NOMINATIVE to D/NP1.

4 The local domains referred by this rule are, essentially, the Spell Out domains proposed by Chomsky (2000, 2001)

d. If there is no other D/NP, D/NP2, in the same TP as D/NP1 such that D/NP2 is c-commanded by D/NP1 assign (marked) ABSOLUTIVE to D/NP1.

According to Baker (2015), all the possibilities listed above have been attested cross-linguistically. A language that sets positively the parameter (16a) exhibits an ergative system[5]. Examples of languages of this type are, for instance, Shipibo and Greenlandic, as follows:

SHIPIBO

(17) *Jose-kan* *ochiti* *ben-ai.*
Jose-ERG dog seek-IMPF
'José is looking for a/the dog.'

(Baker, 2015:20)

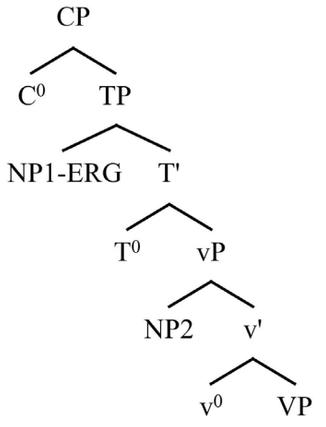
GREENLANDIC

(18) *Umiarsu-up* *Qaaurtuq* *aqqusaar-paa.*
ship-ERG Qaqortoq stop.by.at-IND.3SGS.3SGO
'The ship stopped at Qaqortoq.'

(Fortescue, 1984:210)

According to the parameter (16a), the syntactic derivation of the sentences above entails that the subject receives the ergative Case, since it is the dependent Case in these subtypes of ergative languages. Thus, the sentences above must have the syntactic structure depicted below:

(19)



Sakha is a good example of a nominative-accusative language in which the parameter (16b) is set. In such situation, the direct object receives the accusative dependent Case, since it is sitting in the same domain as the subject. The syntactic tree in (21) shows how the Case system of the sentences below is derived.

5 The reason for split-ergativity, which is also fairly common, will mostly have to do with other spell-out domains (cf. Baker, 2015:155-162), but since Tukano is a nominative language, this article will not delve deeper into that.

SAKHA

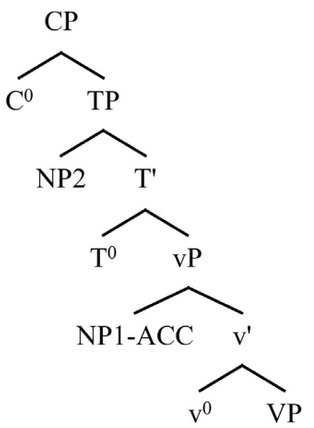
(20a) *Masha salamaat-y türgennik sie-te.*
Masha porridge-ACC quickly eat-PAST.3sS
'Masha ate the porridge quickly.'

(Baker, 2015:5)

(20b) *Erel kinige-ni atyylas-ta.*
Erel book-ACC buy-PAST.3SGS
'Erel bought the book.'

(Baker, 2015:112)

(21)



One example of a language that combines the parameters (16a) and (16b), thereby making a tripartite Case system to emerge, is, for instance, Nez Perce. In such a Case system, two dependent Cases are activated: the ergative and the accusative. According to this proposal, the subject receives the ergative Case and the object gets the accusative Case owing to the fact that both of them are in the same Spell-Out domain. The syntactic derivation of the sentence (22b) is shown in (23).

NEZ PERCE

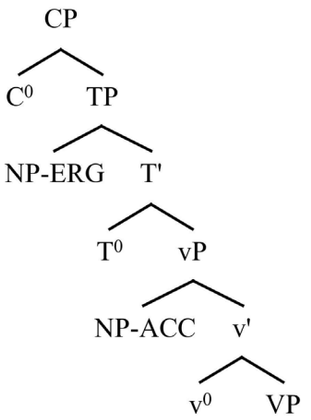
(22a) *Hi-páay-na háama.*
3S-arrive-ASP man
'The man arrived.'

(Rude, 1986:126)

(22b) *Háama-nm hi-necé-'wi-ye wewúkiye-ne.*
man-ERG 3S-PL.O-shoot-ASP elk-ACC
'The man shot the elk(PL).'

(Rude, 1986:127)

(23)



Parameter (16c) will be activated in a subset of nominative-accusative languages that selects the nominative as a marked Case. Languages of this subtype are, for example, Choctaw and Japanese. According to Baker's theory, in these languages, the subject gets nominative Case due to the fact that the object sits in the same minimal domain as the subjects. In line with this view, the transitive sentences in the examples below have the syntactic derivation outlined in (26).

Choctaw

(24a) *Hattak-at* *taloowa-tok.*
man-NOM sing-PAST
'The man sang.'

(Broadwell, 2006:128)

(24b) *John im-ofi-it* *illi-tok.*
John P-dog-NOM die-PAST
'John's dog died.'

(Broadwell, 2006:68)

(24c) *Ópah tíkchi-it* *alla* *i-paya-ttook.*
Owl wife-NOM child P-call-DPAST
'The owl's wife called the children.'

(Broadwell, 2006:68)

Japanese

(25a) *Kabin-ga* *kowareta*
vase-NOM broke
'A vase broke.'

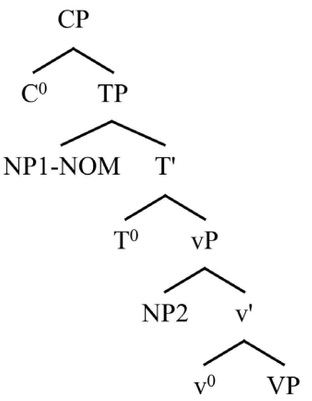
(Tsujimura, 2007:382)

Revista Letras,
Curitiba, UFPR,
n. 101, pp. 16-44,
jan./jun. 2020
ISSN 2236-0999
(versão eletrônica)

(25b) *Watashi-wa kabin-wo kowashita*
I-NOM vase-ACC broke
'I broke the vase.'

(Tsujimura, 2007:382)

(26)



According to Baker's (2015) proposal, Nias exemplifies a language that sets positively the parameter proposed in (16d). In such a system, the marked Case is the absolutive. This Case is assigned to direct objects whenever they occupy the same minimal domain as the subject. The syntactic structure in (28) indicates that the higher DP in the subject position clearly c-commands the object in a local domain.

NIAS

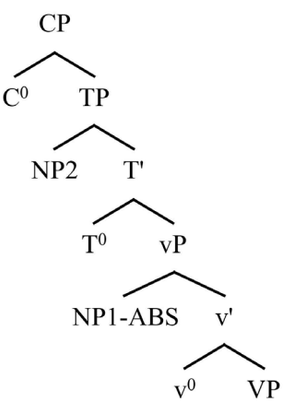
(27a) *Manavuli sui [n-ama-da Tohönavanaetu] ba Maenamölö.*
return again ABS-father-1PLP Tohönavanaetu LOC Maenamölö.
'Ama Tohonavanaetu came back again to Maenamölö.'

(Brown; Donohue, 1999:61)

(27b) *I-a [m-bavai] [ama Gumi].*
3SGS.REAL-eat ABS-pig father.ERG Gumi
'Ama Gumi eats pigs.'

(Brown; Donohue, 1999:61)

(28)



Based on these theoretical assumptions, the main objective in the next sections is to determine what subtype of dependent Case system Tukano belongs to. Our working hypothesis is that Tukano sets the Case parameter in (16b), since the direct object systematically receives the marked accusative Case whenever it moves out of the VP to the specifier position of *v*P. These premises allow us to propose that the direct object is raised out of the VP, whenever it is definite, situation in which it is obligatorily Case marked by the accusative Case morpheme {-re}. In order to support this proposal, we will posit that VP corresponds to a spell-out domain and that v^o may be viewed as a phase head. This proposal will be empirically supported by the syntactic distribution of the internal object within the transitive sentences. More precisely, we will assume that, whenever the object remains inside the VP, the rules in (16) are not applied. However, if the object moves out of the VP, landing in the edge of the *v*P, we will then propose that the object enters into the TP domain[6]. As a consequence, whenever the subject and the object are in the same Spell Out domain, the dependent accusative Case will be assigned to the object. The next sections address this theoretical proposal in more details. Let us then start with presenting the relevant empirical data that are crucial for our understanding of how the Tukano DOM system can be syntactically derived.

3. The Relevant Data

Before examining the grammatical properties that regulate the differential object marking in Tukano, it is important to give the reader a brief overview of how definiteness is encoded in this language. Like many other indigenous languages of South America[7], the Tukano grammar does not provide articles to convey the definiteness feature of noun phrases. Nonetheless, Tukano does have a number of different morphemes and lexical items that are used to indicate the definiteness of the noun. One of these strategies regards the syntactic distribution of the Case suffix {-re}. In line with this, one may argue that, whenever this morpheme occurs on the direct object, it signals that object NP is definite, whereas its absence indicates that the object is indefinite. Compare the examples below:

6 Notice that all the arboreal structures in section 2 are presupposing that such object shift has already taken place.

7 According to Carlier and Mulder (2011:1), one may argue that '*from a typological viewpoint, the grammatical category of the articles is rather uncommon. According to Dryer (1989), articles would be attested in only one third of the languages of the world. Only 8 per cent would have both a definite and an indefinite article. Moreover the spread of this phenomenon is geographically very unequal, with a high incidence in (western) European languages (for an overview, see Himmelmann 1997: 195–207; Bauer 2007; Dryer 2008).*"

(29) *Di'põhí* *a'mâ-gɨ'* *weé-'*
knife look.for-SS.MSG do-PRES.VIS.1
'I'm looking for a knife (any knife)'

(30) *Di'põhí-re* *a'mâ-gɨ'* *weé-'*
knife-ACC look.for-SS.MSG do-PRES.VIS.1
'I'm looking for the knife (the one I lost)'

(31) *Ohakɨhɨ́* *ɨá-sa'*
pen want-PRES.SEN.1
'I want a pen'

(32) *Noá* *yaha-áti,* *yagɨ́* *ohakɨhɨ́-re?*
who steal-REC.PAST.VIS.INT POSS.1 pen-ACC
'Who stole my pen?'

It is important to point out that the numeral *ni'kâ* 'one'[8] marks indefiniteness in Tukano so that it cannot co-occur with an NP marked with {-re}. This is confirmed when we compare the contrast in the grammaticality judgment of the data below. The sentence (34) is ungrammatical owing to the fact the numeral cannot appear before a definite noun, which, in this case, is Case marked by the suffix {-re}.

(33) *Ni'kâ* *wi'i* *da'rê-gɨ'* *wee-mí*
one house make-SS.MSG do-PRES.VIS.3MSG
'(he) is making a house'

(34) **Ni'kâ* *wi'i-re* *da'rê-gɨ'* *wee-mí*
one house-ACC make-SS.MSG do-PRES.VIS.3MSG

Moreover, there are many other lexical items such as demonstratives, possessives, quantifiers and classifiers that may be used in order to make entities more or less definite. Let us take as an example the classifiers. When these morphemes are added to mass nouns, they make these nouns individualized and, as consequence, countable, as is illustrated below:

(35) *komé*
'metal'

(36) *kome-tí*
'metal pan'

8 Lyons (1999:49) argues that "this 'indirect signaling' of indefiniteness by a cardinality determiner, leading to a strong intuition that simple definites and indefinites that it contrasts with definite determiners, is widespread".

(37) *kome-wɨ́*
'metal boat".

The hypothesis that classifiers can be used as a strategy to indicate definiteness of nouns is reinforced by the evidence below. Observe that the co-occurrence of the classifier and the Case suffix {-re} in the sentence (39) clearly indicates that the referent of the noun is definite. However, if one leaves out the classifier, the sentence becomes ungrammatical, as is shown in (40).

(38) *Ohô* *ba'â-ya!*
banana eat-IMP
'Eat (some) banana!'

(39) *Ohô-poro-re* *ba'â-ya!*
banana-OBLS-ACC eat-IMP
'Eat the banana!'

(40) **Ohô-re* *ba'â-ya!*
banana eat-IMP

In sum, the absence of the classifier in the sentence (40) indicates that the referent of the noun phrase *ohô* 'banana' can only be interpretable as generic. This explains why the suffix {-re} cannot occur on this noun, since it is incompatible with the indefiniteness reading.

The data above thus favor our hypothesis that, in order to compensate the lack of articles, the Tukano grammar uses the Case suffix {-re} and classifiers in order to encode definiteness. Based on this, the next subsections aim to describe that the Case suffix {-re} plays a major role at triggering a differential object marking system. Let us start our analysis focusing on the direct object construction.

3.1. Single object construction

From the descriptive viewpoint, one may argue that Tukano is a verb-final language, exhibiting a nominative-accusative alignment. Furthermore, subjects and objects systematically precede the verb, thereby emerging the rigid SOV word order in transitive clauses. Notice that the object is obligatorily marked with the Case suffix {-re}, whenever it is definite, as the empirical data below demonstrate:

(41) *Ɨ'tâ nuhuro* *kero-ré* *pihî-pɨ'*
beetle firefly-ACC call-REM.PAST.REP.3MSG
'The beetle called the firefly.'

(42) *Keró* *ɨ'tâ nuhuro-re* *niî-pɨ'*
firefly beetle-ACC speak-REM.PAST.REP.3MSG
'The firefly spoke to the beetle.'

(43) *Ɨ'tâ nuhuro* *wa'î* *boâ-'karã-re*[9]
beetle fish rot-NMLZ.AN.PL.PERF-ACC

ba'â-gɨ' *weé-pɨ'*
eat-SS.MSG do-REM.PAST.REP.3MSG
'The beetle was eating the raw fish.'

(44) *Yukɨ kõré* *aâ pakɨ* *makɨ-re* *niî-pɨ'*
woodpecker hawk son-ACC speak-REM.PAST.REP.3MSG
'The woodpecker spoke to the hawk's son.'

(45) *Yɨ'î* *María-re* *tɨ'sâ-'*
1SG Maria-ACC like-PRES.VIS.1
'I like Maria.'

Notice that the subject of the transitive sentences is treated in the same way as the subject of intransitive sentences, since both of them may trigger the nominative agreement on the verb system. In line with this, compare the agreement in the intransitive sentences below with the agreement in the transitive sentences above. In both contexts, the verb obligatorily receives an agreement suffix to refer to the argument that occupies the syntactic position of subject.

9 One of the reviewer asks us to explain the difference between the occurrence of the suffix {-re} in a complex noun phrase, in which there is a nominalized verb root following the head noun, and those contexts, in which the noun phrase is a simple one. One may state that this suffix systematically comes at the end of the rightmost constituent of the NP. As such, the reader can compare the following examples in which the object is realized both by a complex noun phrase as in (i) and by a simple one as in (ii).

(i) *Ɨ'tâ nuhuro* *wa'i* *boâ-'karã-re*
beetle fish rot-NMLZ.AN.PL.PERF-ACC

ba'â-gɨ' *weé-pɨ'*
eat-SS.MSG do-REM.PAST.REP.3MSG
'The beetle was eating the raw fish.'

(ii) *Ɨ'tâ nuhuro* *wa'i-re*
beetle fish-re

ba'â-gɨ' *weé-pɨ'*
eat-SS.MSG do-REM.PAST.REP.3MSG
'The beetle was eating the fish.'

(46) *Ûhuri* *utî-pɨ'*
Tortoise cry-REM.PAST.REP.3MSG
'The tortoise cried.'

(47) *Aâ-pakɨ* *dahâ-pɨ'*
hawk return-REM.PAST.REP.3MSG
'The hawk returned.'

(48) *Ni'kâroakã,* *ĩsâ* *da'rá-'*
now 1PL.EXCL work-PRES.VIS.1
'Now, we work.'

(49) *Diâ-pɨ* *koô* *baa-mó*
river-LOC 3FSG swim-PRES.VIS.3FSG
'She swims in the river.'

In sum, the data presented thus far clearly points out that Tukano is a nominative-accusative language, since the transitive and intransitive subjects trigger the same set of agreement. They also remain unmarked for morphological case. The object, on other hand, picks up the accusative morpheme {-re}, whenever it is high in the definiteness scale. Moreover, objects do not trigger agreement on the verb stem, thereby confirming our hypothesis that Tukano follows a nominative-accusative alignment. Nonetheless, a differential object marking system emerges in the Tukano grammar whenever the referent of the object is interpreted as indefinite, a situation in which the object must remain unmarked. As a consequence, the object cannot receive the Case suffix {-re}, as the empirical examples below confirm.

(50) *Naâ* *akó* *sĩ'ri-má*
3PL water drink-PRES.VIS.3PL
'They drink water.'

(51) *Kĩĩ* *wesé* *bube-ámi*
3MSG plantation plant-REC.PAST.VIS.3MSG
'He planted a plantation.'

(52) *Paharã́* *wa'î* *boká-parã*
many fish find-REM.PAST.REP.3PL
'(they) found many fish.'

(53) *Pũûgɨ* *su'â-gɨ'* *weé-'*
hammock weave-SS.MSG do- PRES.VIS.1
'(I) am weaving a hammock.'

Revista Letras,
Curitiba, UFPR,
n. 101, pp. 16-44,
jan./jun. 2020
ISSN 2236-0999
(versão eletrônica)

The differential object marking becomes clear when we examine the set of minimal pairs below. In the example in (b), the appearance of the accusative Case suffix {-re} is obligatory, since the object is interpreted as definite. This, thus, signals that the definiteness feature really regulates the accusative Case distribution in the transitive clauses.

(54a) *Ohô* *ba'â-ya!*
banana eat-IMP
'Eat (some) banana!'

(54b) *Ohô-poro-re* *ba'â-ya!*
banana-OBLS-ACC eat-IMP
'Eat the banana!'

(55a) *Wi'i-ré* *weé-'*
house-ACC build-PRES.VIS.1
'(I) build the house.'

(55b) *Wi'í* *weé-'*
house build-PRES.VIS.1
'(I) build house (I'm a house builder).'

(56a) *Itiárã* *yese-á* *wẽhe-ápɨ*
three pig-PL kill-REC.PAST.VIS.1
'(I) killed three pigs.'

(56b) *Itiárã-re* *yese-á wẽhe-ápɨ*
three-ACC pig-PL kill-REC.PAST.VIS.1
'(I) killed three of the pigs.'

Example (54a) is particularly interesting, inasmuch as the object *ohô* 'banana' comes without the classifier suffix {-*poro*} 'OBLS', context in which the referent of the object must be interpreted as indefinite and generic. Moreover, when the classifier morpheme is attached to the noun, the Case suffix {-re} must occur, thereby signaling that the referent of the object is interpreted as definite. Therefore, the reader might conclude that the co-occurrence of the classifier suffix {-*poro*} with the Case suffix {-re} leads to a more definite interpretation of the referent of the object, as the interpretation obtained in (54b) indicates. From a pragmatic viewpoint, one may argue that, whenever the object *ohô* 'banana' appears without the classifier morpheme {-*poro*}, its referent can only be interpreted as being bananas abstractly, that is, bananas in general. Notwithstanding, when the classifier and the Case morpheme are

both present on the noun stem, the morphological complex *ohô-poro-re* might be used in contexts such as the ones when someone recommends another person to eat a specific and definite banana. In sum, the co-occurrence both of the Case marker {-re} and of the classifier {-poro} attached in a noun stem will be used here as a strong diagnostic to indicate when an object is definite or not. In the next subsection, the aim is to investigate the distribution of the accusative Case morpheme {-re} in double object construction. The purpose is to determine whether the suffix {-re} may appear in both internal arguments or only on the recipient object in the syntactic structure.

3.2. Double object construction

In double object construction, hereafter DOC, the empirical data show that only the recipient is obligatorily Case marked, whereas the theme object systematically remains unmarked, as the data from (57) to (60) below demonstrate.[10]

(57) *Numiô* *sĩ'i-ré* *ɨmîtihisé* *wa're-ámo*
woman DEM.AN.MSG-ACC perfume apply-REC.PAST.VIS.3FSG
'The woman applied perfume on that one.'

(58) *Ba'asé-re* *moâ* *sãâ* *nemo-ya!*[11]
food-ACC salt put more-IMP
'Add more salt to the food!'

(59) *Yi'î* *kĩĩ-re* *su'tí* *o'ô-apɨ*
1SG 3SG-ACC clothes give-REC.PAST.VIS.1
'I gave him clothes.'

(60) *Apêgo* *do'âti-go-re* *akô* *yee-apɨ*
other.AN.FSG be.ill-NOM.AN.FSG-ACC medicine give-REC.PAST.VIS.1
'I gave medicine to the other sick one.'

In order to explain the fact that the Case suffix {-re} can only mark the recipient/goal in the double object construction above, we will assume that the recipient/goal object is also subject to the rule of dependent Case assignment. Therefore, one may argue that the reason why the dependent Case can be activated both in the double object construction and in the simple transitive constructions has to do with the fact that the indirect object (=the recipient/goal) or the direct object (the theme/affected argument) may occur in the edge

10 All of them are in the default order for DOCs in Tukano, namely in the [S Goal theme V] word order. In the next section, we will explain the relevance of such word order.
11 In this data, the goal object is in its canonical argumental position.

Revista Letras,
Curitiba, UFPR,
n. 101, pp. 16-44,
jan./jun. 2020
ISSN 2236-0999
(versão eletrônica)

of the *v*P. Either option will depend on the verb valency. More to the point, if the verb selects a definite object, it will pick up the dependent Case. However, if the verb selects a goal object and a theme object, it will be the goal that will be marked with the dependent Case. The purpose of the next section is to provide a formal derivation for this complementary syntactic distribution.

4. Theoretical proposal: {-re} is a low dependent case marker

Given that Tukano is a nominative-accusative language in which the nominative Case is the morphological default and the accusative is the marked one, we will assume the hypothesis that the accusative Case, morphologically realized by the morpheme {-re}, corresponds to the lower dependent Case. Pursuing the basic lines of Baker's (2015) Dependent Case theory, let us then posit that the dependent Case assigning mechanism in Tukano must obey the following constraint, as stated below:

(61) If D/NP1 is c-commanded by D/NP2 in the same TP domain, then assign ACCUSATIVE dependent Case to D/NP1.

The first piece of evidence that {-re} is really activated as the result of the application of the rule in (61) comes from the fact that it only occurs when there is more than one D/NP in the CP-TP domain. Such prediction is clearly born out by the fact that {-re} is never present in intransitive predicates, as follows:

(62) *Aâ-paki dahâ-pi'*
hawk return-REM.PAST.REP.3MSG
'The hawk returned.'

(63) *Ni'kâroakã, ĩsâ da'rá-'*
now 1PL.EXCL work-PRES.VIS.1
'Now, we work.'

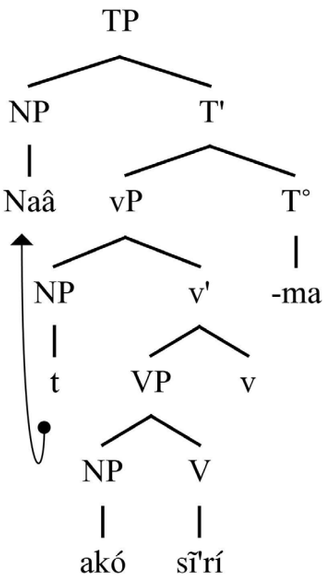
In the sentences shown above, since there is only one D/NP in the TP spell-out domain, the rule of dependent case assignment (61) does not apply, thereby explaining why it does not receive the accusative Case marker {-re}. The reader might, then, be wondering why the dependent accusative Case is not activated when the object is indefinite in simple transitive sentences, as is shown in the sentences repeated below

(64) *Naâ akó sĩ'ri-má*
3PL water drink-PRES.VIS.3PL
'They drink water.'

(65) *Kɨ̃ɨ̂* *wesé* *bube-ámi*
3msg plantation plant-rec.past.vis.3msg
'He planted a plantation.'

In both sentences above, despite the fact that each sentence has two overt NPs, none of them is marked with {-re}. The logical reason for this pattern has to do with the fact that the lower NP of each sentence, *akó* 'water' in (64) and *wesé* 'plantation' in (65), is not in the same Spell-out domain as the higher D/NP. Let us posit that this higher DP occupies the subject position, which corresponds to Spec-TP. This analysis, then, predicts that, whenever the theme object is indefinite, there is no object shift to the edge position of *v*P, a fact that allows us to claim that the unmarked direct object remains inside the VP, as is depicted by the syntactic derivation shown in tree diagram below:

(66)



Notice that the proposal above conforms to Diesing's (1992:56) theory, according to which the VP is the domain of the existential closure, where indefinite and generic NPs are licensed cross-linguistically[12]. This fact explains why the object *akó* 'water' is not marked with {-re} in the transitive sentence above. More to the point, the syntactic tree above aims to capture the fact that indefinite objects do not move out of the VP, thereby receiving abstract Case in situ.[13]

12 Diesing (1992:56) assumes that 'the domain of existential closure should be defined in sentential terms as the VP of the sentence. In other words, only nuclear scopes (which correspond to VPs, by the Mapping Hypothesis) are subject to existential closure.'

13 For limitations of time and space, we will not address here the issue regarding whether the OV order is derived from a head-initial VP or not. For the present purpose, it will suffice to assume that, when the object is indefinite, it remains to the left of the verb, thereby emerging the OV word order, whereas, when it is definite, it moves out of the VP to escape existential closure. In such context, the object must be marked with the accusative Case suffix {-re} and is raised to the inner specifier position of vP.

Revista Letras, Curitiba, ufpr, n. 101, pp. 16-44, jan./jun. 2020
issn 2236-0999 (versão eletrônica)

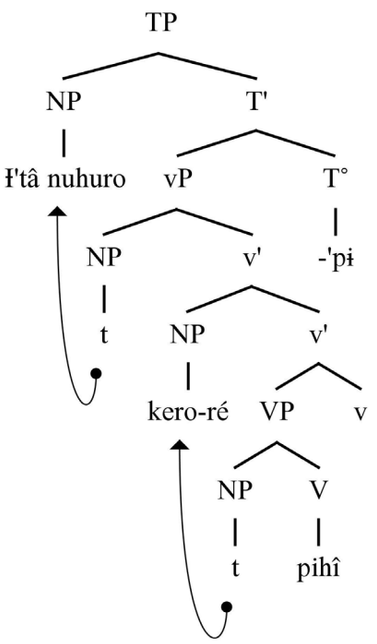
On the other hand, a different pattern emerges, whenever the direct object receives a definite reading. In such contexts, the object obligatorily receives the dependent Case marker {-re} and is moved to spec-vP. This syntactic-semantic differential marking serves as an empirical evidence for one to propose that the definite object systematically moves out of the VP to the edge position of the vP domain in order for the accusative dependent Case to be assigned, as is shown in the sentences below:

(67) *Ɬ'tâ nuhuro* *kero-ré* *pihî-pɨ'*
beetle firefly-ACC call-REM.PAST.REP.3MSG
'The beetle called the firefly.'

(68) *Keró* *ɨ'tâ nuhuro-re* *niî-pɨ'*
firefly beetle-ACC speak-REM.PAST.REP.3MSG
'The firefly spoke to the beetle.'

Based on the analysis outlined thus far, one may hypothesize that the definite object receives the accusative Case as a result of the application of the restriction in (61). In other words, since the definite object is sitting in the same minimal domain as the subject in the sentence above, the accusative Case assignment mechanism must be applied. As the object is moved to Spec-*v*P, it is then marked with the accusative Case {-re}, as is illustrated by the derivation below.

(69)



A strong piece of evidence in favor of the derivation in (69) comes from the fact that the objects marked with the Case suffix {-re} must be positioned before adverbials and locative PPs, whereas unmarked objects cannot occur in such a position. This then signals that only definite objects can be moved

around the locative phrases to the edge of the *v*P, whereas indefinite objects cannot be moved around them, as the ungrammaticality of sentence (70b) indicates. Compare the examples below:

(70a) *Pedurú wa'ĩ-re [naâ basa-ró-pɨ] ba'â-mi*
Pedro fish-ACC [3PL dance-NOM.IN.LOC-LOC] eat.PRES.VIS.3MSG
'Pedro eats the fish where they dance'

(70b) **Pedurú wa'ĩ naâ basa-ró-pɨ ba'â-mi*
Pedro fish 3PL dance-NOM.IN.LOC-LOC eat.PRES.VIS.3MSG

(70c) *Pedurú [naâ basa-ró-pɨ] wa'ĩ ba'â-mi.*
Pedro [3PL dance-NOM.IN.LOC-LOC] fish eat.PRES.VIS.3MSG
'Pedro eats fish where they dance'

Notice that, in the sentence (70c), since the theme-object is indefinite, it remains unmarked and does not move around the locative phrase.

A final piece of example in favor of the proposal above comes from the double object constructions. In these sentences, the recipient argument must systematically appear with the Case marker {-re}, as follows.

(71) *Numiô sĩ'ĩ-ré ɨmîtihisé wa're-ámo*
woman DEM.AN.MSG-ACC perfume apply-REC.PAST.VIS.3FSG
'The woman applied perfume on that one.'

(72) *Yɨ'ĩ kɨ̃ɨ̃-re su'tí o'ô-apɨ*
1SG 3SG-ACC clothes give-REC.PAST.VIS.1
'I gave him clothes.'

Based on the data above, one may postulate that the theme argument never occurs with the Case marker suffix {-re} in the double object constructions. An explanation for this syntactic pattern can be achieved if one admits that, since it is the recipient that is in the domain of the subject, but not the theme object, the indirect object, then, outranks the direct object and, therefore, must pick up the marked accusative Case. The tree diagram below depicts how the Tukano DOCs[14] are derived:

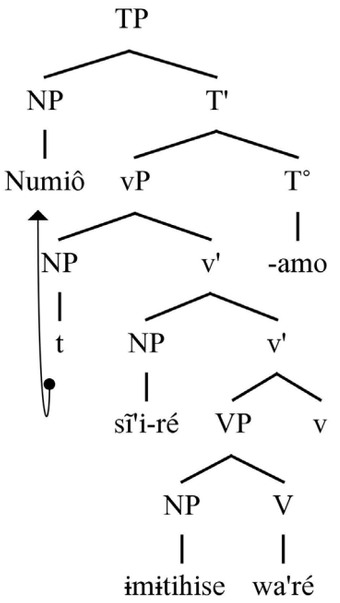
14 We will assume Larson's (1988) hypothesis according to which the indirect object asymmetrically c-commands the direct object, thereby occurring in a higher position than the direct object in the syntactic tree. This structure is proposed based on certain asymmetries between the two objects. For instance, it is observed that a quantified object usually binds a pronoun within the direct object, but not vice versa. This is what one can deduce from the contrast below, in which the quantifier '*every*' obligatorily c-commands the pronominal anaphora '*his*' in order to bind it:

(i) John gave every worker$_i$ his$_i$ paycheck.
(ii) *John gave its$_i$ owner every paycheck$_i$.

A further research should examine whether in Tukano the double object constructions exhibits the same distribution pattern regarding the asymmetric relation between the two objects. In sum, this is a topic for a future research.

Revista Letras,
Curitiba, UFPR,
n. 101, pp. 16-44,
jan./jun. 2020
ISSN 2236-0999
(versão eletrônica)

(73)



5. Final Remarks

This article shows that, even though Tukano has an overt object Case marking system, not all objects are marked with the Case suffix {-re}. According to this proposal, only definite objects are marked with {-re}, while indefinite objects remain unmarked in simple transitive constructions, thereby emerging a differential object marking. We derive this system by assuming that the definite objects move out of the VP, whereas indefinite ones remain within the VP. Therefore, after moving to Spec-*v*P, the object sits in the same domain as the subject, thereby receiving the dependent accusative Case.

As to the double object constructions, it is proposed that only the Goal-D/NP is marked with {-re}, regardless of the fact whether the theme object is definite or not. In order to derive this pattern, we assume that the recipient occupies a higher position, being able to appear above preposition phrases. According to this view, as the recipient sits in the edge of vP and is in the same domain as the subject, it must receive the lower dependent case in the CP-TP-*v*P domain. Note that, as the recipient object is in a high position, it blocks the accusative dependent Case to be assigned to the theme object. As a consequence, the theme object never gets the dependent accusative Case in DOCs, regardless of whether it is definite or not. According to this view, the recipient will always be in a higher position than the theme object in the structure.

Abbreviations

1 = First Person
2 = Second Person
3 = Third Person
ACC = Accusative
AN = Animated
ANAPH = Anaphoric
ASP = Aspect
COP = Copula
COLL = Collective
DEM = Demonstrative
ERG = Ergative
EXCL = Exclusive
F = Feminine
IMP = Imperative
IMPF = Imperfective
IN = Inanimate
IND = Indicative Mood
LOC = Locative
M = Masculine
MOV = Movement
NOM = Nominative
NMLZ = Nominalizer
OBJ = Object
OBLS = Oblong Shape
P = Possessor
PAST = Past Tense
PERF = Perfective
PL = Plural
POSS = Possessive
PRES = Present Tense
REAL = Realis Mood
REC = Recent
REM = Remote
REP = Reportative Evidence
SG = Singular
S = Subject
S = Sensory Evidence
SS = Same Subject
O = Object
VIS = Visual Evidence

Revista Letras,
Curitiba, UFPR,
n. 101, pp. 16-44,
jan./jun. 2020
ISSN 2236-0999
(versão eletrônica)

References

AIKHENVALD, Alexandra Y. Areal diffusion and language contact in the Içana-Vaupés basin, north-west Amazonia. In: DIXON, R. M. W.; AIKHENVALD, Alexandra Y. (Orgs.). *The Amazonian Languages*. Cambridge: Cambridge University Press, 1999. cap. 14, p. 382-416.

AISSEN, Judith. Differential object marking: iconicity vs. Economy. In: *Natural Language & Linguistica Theory*, vol. 21, nº3, p 435-483, 2003.

BAKER, Mark. *Case: Its principles and its parameters.* Cambridge: Cambridge University Press, 2015.

BARNES, Janet. Tucano. In: DIXON, R. M. W.; AIKHENVALD, Alexandra Y. (Orgs.). *The Amazonian Languages*. Cambridge: Cambridge University Press, 1999. cap. 7, p. 207-226.

BOSSONG, G. *Empirische universalienforschung:* Differentielle objektmarkierung in den neuiranischen Sprachen. Tübingen: Narr. 1985

BROADWELL, George Aaron. *A Choctaw reference grammar*. Lincoln, Nebraska: University of Nebraska Press. 2006.

BROWN, Lea; DONOHUE, Mark. *Ergativity*: Some additions from Indonesia. Australian Journal of Linguistics 19:57–76. 1999.

BUTT, Miriam & KING, Tracy Holloway. The Status of Case. In: Dayal, Veneeta and Mahajan, Anoop (Eds.). *Clause Structure in South Asian Languages*. Studies in Natural Language and Linguistic Theory, vol 61. Dordrecht: Springer, 2004.

CABANA, Nasle. *Marcação diferencial de argumentos nucleares da língua Ka'apor*. Tese (Doutorado em Linguística) – Faculdade de Letras, Universidade Federal de Minas Gerais, Belo Horizonte, 2015.

CARLIER, Anne; MULDER, Walter. Definite Articles. In: HEINE, Bernd; NARROG, Heiko (Eds.). *The Oxford Handbook of Grammaticalization*. Oxford: Oxford University Press, 2011.

CHOMSKY, Noam. *The Architecture of Language.* New Dheli: Oxford University Press. 2000

_____. *On Nature and Language.* Cambridge: Cambridge University Press. 2001

COMRIE, Bernard. *Language Universals and Linguistic Typology*. Chicago: University of Chicago Press. 1989. 2ª ed.

CROFT, William. Agreement vs. case marking and direct objects. In: BARLOW, Michael; FERGUSON, Charles (Ed.). *Agreement in natural language*: approaches, theories, descriptions. Chicago: University of Chicago, 1988. p. 159-179.

_____. *Typology and universals*. 4th. ed. Cambridge: Cambridge University, 1990.

DANE, *Censo Nacional de Poblacion de 2005*. Disponível em: https://www.mininterior.gov.co/sites/default/files/upload/SIIC/PueblosIndigenas/pueblo_tukano.pdf. Acesso em 24/11/2019.

DIESING, Molly. *Indefinites*. Cambridge: MIT Press. 1992.

DUARTE, Fábio Bonfim. The particle 'ke' as a differential object and subject marker in Ka'apor. *Boletim do Museu Paraense Emílio Goeldi*. Ciências Humanas, Belém, v. 14, n. 3, set./dez. 2019.

DUARTE, Fábio Bonfim. On the semantics of affectedness and its implications for argument structure in the Ka'apor language. Revista LinguíStica, Revista do Programa de Pós-Graduação em Linguística da Universidade Federal do Rio de Janeiro. Volume 10, número 1, julho de 2014.

DUARTE, Fábio Bonfim. Marcação diferencial do objeto em Bantu e em Tupí-Guaraní. Revista Língua Viva, v. 4, p. 1-22, 2014.

DUARTE, Fábio Bonfim; CAMARGOS, Quesler Fagundes; NGUNGA, A. Differential object marking in Mozambican languages. In: Doris L. Payne, Sara Pacchiarotti & Mokaya Bosire (Eds.). Differential object marking in Mozambican languages. ed.Berlin: Language Science Press, p. 333-354, 2016.

FLEMING, Luke. Linguist exogamy and language shift in the Northwest Amazon. In:*Internation Journal of the Sociology of Language,* vol. 240, p.9-27, 2016.

FORTESCUE, Michael. *West Greenlandic*. London: Croom Helm. 1984.

GIVÓN, Talmy. Topic, pronoun and grammatical agreement. In: LI, Charles (Ed.). *Subject and Topic*. New York: Academic Press, 1976. p. 149-188.

Revista Letras, Curitiba, UFPR, n. 101, pp. 16-44, jan./jun. 2020
ISSN 2236-0999 (versão eletrônica)

IBGE, *Censo demográfico 2010*. Disponível em: https://indigenas.ibge.gov.br/estudos-especiais-3/o-brasil-indigena/povos-etnias.html. Acesso em 24/11/2019.

ISA, Tukano. In: *Povos Indígenas no Brasil*. Disponível em: https://pib.socioambiental.org/pt/Povo:Tukano. Acesso em 24/11/2019.

LARSON, Richard. On the double object construction. *Linguistic Inquiry*. v. 22: 687-720. 1988.

LYONS, Christopher. *Definiteness*. Cambridge: Cambridge University Press. 1999.

MINUSSI, Rafael Dias. *A relação entre Caso e definitude no hebraico:* o construct state e a Marcação diferencial do objeto. Dissertação (Mestrado em Linguística) – Departamento de Linguística da Universidade de São Paulo, São Paulo, 2008.

OLIVEIRA, Ana Guita de. *Missionários e Índios do Alto Rio Negro*. Brasília: Jornal de Brasília. 1983

RAMIREZ, Henri. *A Fala Tukano dos Ye'pâ-Masa:* Tomo I Gramática. Manaus: CEDEM. 1997.

RUDE, Noel. Topicality, transitivity, and the direct object in Nez Perce. *International Journal of American Linguistics*. v. 52:124-153. 1986.

SORENSEN, Arthur P. *Morphology of Tucano*. Tese (Doutorado em Linguística) – Columbia University. 1969

STENZEL, Kristine. Koitiria 'differential object marking' in cross-linguistic perspective. *Amerindia*. Rio de Janeiro: Museu Nacional. 2008, nº 32, p. 153-181.

TSUJIMURA, Natsuko. *An introduction to Japanese linguistics*. Wiley-Blackwell. p. 382. 2007.

WÖLCK, Wolfgang. Diglossia, stable bilingualism and minority language maintenance. In: *International Journal of Anthropology*. v. 23. p. 221-232. 2008.